NRR-DMPSPEm Resource

From: Wong, Albert
Sent: Monday, January 22, 2018 12:57 PM
To: wmagui1@entergy.com
Cc: RidsNrrDmlr Resource; RidsNrrDmlrMrpb Resource; RidsNrrPMRiverBend Resource; RidsOgcMailCenter Resource; Wilson, George; Donoghue, Joseph; Sayoc, Emmanuel; Wong, Albert; Cuadrado de Jesus, Samuel; Buford, Angela; Holston, William; Gardner, William; Sadollah, Mohammad; Nguyen, Duc; Oesterle, Eric; Alley, David; Martinez Navedo, Tania; Bailey, Stewart; Wittick, Brian; Ruffin, Steve; Bloom, Steven; Regner, Lisa; Turk, Sherwin; Sowa, Jeffrey; Parks, Brian; Pick, Greg; Kozal, Jason; Young, Cale; Young, Matt; Werner, Greg; McIntyre, David; Dricks, Victor; Moreno, Angel; Burnell, Scott; 'Broussard, Thomas Ray'; Lach, David J; SCHENK, TIMOTHY A; 'Coates, Alyson'
Subject: FINAL REQUESTS FOR ADDITIONAL INFORMATION FOR THE SAFETY REVIEW OF THE RIVER BEND STATION LICENSE RENEWAL APPLICATION (CAC NO. MF9757) – SET 8
Attachments: RAI Set 8 Enclosure -Final_with electrical RAIs_ERO_Duc_comments incorp_CLEAN_ 012218.pdf

Docket No. 50-458

By letter dated May 25, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17153A282), Entergy Operations, Inc. (the applicant) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," to renew the operating license NPF-47 for River Bend Station.

On December 15, 19, 2017 and January 2, 2018, the U.S Nuclear Regulatory Commission (NRC) staff sent Entergy Operations, Inc. the draft Requests for Additional Information (RAIs) for technical review packages (TRPs) 19 (Bolting Integrity), 49 (Insulation Material for Electrical Cables – Connections Not Subject to 10 CFR 50.49 EQ Requirements), 51 (Inaccessible Power Cables Not Subject to 10 CFR 50.49 EQ Requirements), 75 (Copper Alloy), 80 (High Voltage Insulators), and 102 (Structural Fatigue). Entergy Operations, Inc. subsequently informed the NRC staff that clarification calls were needed to discuss the information requested. The clarification calls between NRC staff and Entergy Operations, Inc. representatives were held on (1) January 4, 2018, for TRPs 19 and 102, (2) January 9 and 11, 2018 for TRP 75, and (3) January 16, 2018 for TRPs 49, 51 and 80. During these calls the subject information requests were discussed and modified as follows:

For TRP 19, RAIs B.1.2-1 and B.1.2-2 were discussed and modified. For TRP 49, RAI 1.29-1 was discussed and modified. For TRP 51, RAI 1.28-1 was discussed and modified. For TRP 75, RAIs 3.3.2.1.Y-1 and 3.3.2.1.Y-3 were discussed and modified; RAI 3.3.2.1.Y-2 was discussed but not modified. For TRP 80, RAI 3.6.2.2.2-1 was discussed and modified. Finally, for TRP 102, TRP 3.5.1.27-1 was discussed and modified. The final RAIs are enclosed.

David Lach of your staff agreed to provide a response to all the final RAIs within 30 days of the date of this email. The NRC staff will be placing a copy of this email in the NRC's Agencywide Documents Access and Management System.

Sincerely,

Emmanuel Sayoc, Project Manager *Albert Wong for*
License Renewal Projects Branch (MRPB)
Division of Materials and License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-458

Enclosure:
As stated

OFFICE	PM:MRPB:DMLR	BC: MRPB:DMLR	PM: MRPB:DMLR
NAME	ESayoc	EOesterle	ESayoc *Albert Wong for*
DATE	01/17/2018	01/22/2018	01/22/2018

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Subject: FINAL REQUESTS FOR ADDITIONAL INFORMATION FOR THE SAFETY REVIEW OF THE RIVER BEND STATION LICENSE RENEWAL APPLICATION (CAC NO. MF9757) – SET 8
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From: Wong, Albert

Created By: Albert.Wong@nrc.gov

Recipients:
"RidsNrrDmlr Resource" <RidsNrrDmlr.Resource@nrc.gov>
Tracking Status: None
"RidsNrrDmlrMrpb Resource" <RidsNrrDmlrMrpb.Resource@nrc.gov>
Tracking Status: None
"RidsNrrPMRiverBend Resource" <RidsNrrPMRiverBend.Resource@nrc.gov>
Tracking Status: None
"RidsOgcMailCenter Resource" <RidsOgcMailCenter.Resource@nrc.gov>
Tracking Status: None
"Wilson, George" <George.Wilson@nrc.gov>
Tracking Status: None
"Donoghue, Joseph" <Joseph.Donoghue@nrc.gov>
Tracking Status: None
"Sayoc, Emmanuel" <Emmanuel.Sayoc@nrc.gov>
Tracking Status: None
"Wong, Albert" <Albert.Wong@nrc.gov>
Tracking Status: None
"Cuadrado de Jesus, Samuel" <Samuel.CuadradoDeJesus@nrc.gov>
Tracking Status: None
"Buford, Angela" <Angela.Buford@nrc.gov>
Tracking Status: None
"Holston, William" <William.Holston@nrc.gov>
Tracking Status: None
"Gardner, William" <William.Gardner@nrc.gov>
Tracking Status: None
"Sadollah, Mohammad" <Mohammad.Sadollah@nrc.gov>
Tracking Status: None
"Nguyen, Duc" <Duc.Nguyen@nrc.gov>
Tracking Status: None
"Oesterle, Eric" <Eric.Oesterle@nrc.gov>
Tracking Status: None
"Alley, David" <David.Alley@nrc.gov>
Tracking Status: None
"Martinez Navedo, Tania" <Tania.MartinezNavedo@nrc.gov>
Tracking Status: None
"Bailey, Stewart" <Stewart.Bailey@nrc.gov>
Tracking Status: None
"Wittick, Brian" <Brian.Wittick@nrc.gov>
Tracking Status: None
"Ruffin, Steve" <Steve.Ruffin@nrc.gov>

Tracking Status: None
"Bloom, Steven" <Steven.Bloom@nrc.gov>
Tracking Status: None
"Regner, Lisa" <Lisa.Regner@nrc.gov>
Tracking Status: None
"Turk, Sherwin" <Sherwin.Turk@nrc.gov>
Tracking Status: None
"Sowa, Jeffrey" <Jeffrey.Sowa@nrc.gov>
Tracking Status: None
"Parks, Brian" <Brian.Parks@nrc.gov>
Tracking Status: None
"Pick, Greg" <Greg.Pick@nrc.gov>
Tracking Status: None
"Kozal, Jason" <Jason.Kozal@nrc.gov>
Tracking Status: None
"Young, Cale" <Cale.Young@nrc.gov>
Tracking Status: None
"Young, Matt" <Matt.Young@nrc.gov>
Tracking Status: None
"Werner, Greg" <Greg.Werner@nrc.gov>
Tracking Status: None
"McIntyre, David" <David.McIntyre@nrc.gov>
Tracking Status: None
"Dricks, Victor" <Victor.Dricks@nrc.gov>
Tracking Status: None
"Moreno, Angel" <Angel.Moreno@nrc.gov>
Tracking Status: None
"Burnell, Scott" <Scott.Burnell@nrc.gov>
Tracking Status: None
"'Broussard, Thomas Ray'" <tbrous1@entergy.com>
Tracking Status: None
"Lach, David J" <DLach@entergy.com>
Tracking Status: None
"SCHENK, TIMOTHY A" <TSCHENK@entergy.com>
Tracking Status: None
"'Coates, Alyson'" <alacey@entergy.com>
Tracking Status: None
"wmagui1@entergy.com" <wmagui1@entergy.com>
Tracking Status: None

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MESSAGE	2485	1/22/2018 12:57:00 PM
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REQUEST FOR ADDITIONAL INFORMATION
LICENSE RENEWAL APPLICATION
RIVER BEND STATION, UNIT 1
DOCKET NO.: 50-458
CAC NO.: MF9757
Office of Nuclear Reactor Regulation
Division of Materials and License Renewal

10 CFR § 54.21(a)(3) of 10 CFR requires an applicant to demonstrate that the effects of aging for structures and components will be adequately managed so that the intended function(s) will be maintained consistent with the current licensing basis for the period of extended operation. One of the findings that the staff must make to issue a renewed license (10 CFR § 54.29(a)) is that actions have been identified and have been or will be taken with respect to the managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under § 54.21, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the current licensing basis (CLB). As described in SRP LR, an applicant may demonstrate compliance with 10 CFR 54.21(a)(3) by referencing the GALL Report. In order to complete its review and enable making a finding under 10 CFR § 54.29(a), the staff requires additional information in regard to the matters described below.

RAI 3.3.2.1.Y-1 (TRP 75 Copper Alloy)

Background

LRA Table 3.2.2-3, "Residual Heat Removal System," states that loss of material for copper alloy heat exchanger tubes externally exposed to treated water will be managed using the Water Chemistry Control and One Time Inspection programs. The program description in LRA Section B.1.32, "One-Time Inspection," program states that, "[e]xamination techniques will be established NDE methods with a demonstrated history of effectiveness in detecting the aging effect of concern, including visual, ultrasonic, and surface techniques."

Issue

Because access to the external surfaces of heat exchanger tubes is typically very limited due to tube spacing, tube supports, backside of tubes, etc., it is unclear to the staff what examination technique will be used to manage loss of material for the copper alloy tubes exposed to treated water. In addition, given the reference to "established NDE methods," it is not clear whether the list of techniques are examples or the only techniques that will be used.

Request

1. State which NDE technique will be used to manage loss of material for the copper alloy heat exchanger tubes.
2. If the technique is not capable of examining the external surfaces of the tube, state the basis for the acceptability of its use.
3. If the visual technique will be used, state configuration details such as tube spacing, distance between rows, and access points for visual inspection.
4. If plant-specific procedures do not already cite the inspection technique, what changes will be incorporated into the license renewal application?

RAI 3.3.2.1.Y-2 (TRP 75 Copper Alloy)

Background

LRA Table 3.3.2-3, "Service Water System," states that loss of material for copper alloy heat exchanger tubes externally exposed to condensation will be managed for using the External Surfaces Monitoring program. The program description in LRA Section B.1.17, "External Surfaces Monitoring," program states that, "[p]eriodic visual inspection of external surfaces for evidence of loss of material..." will be conducted.

Issue

Because access to the external surfaces of heat exchanger tubes is typically very limited, it is unclear to the staff whether a visual inspection of the tubes' external surfaces can be reasonably expected to detect loss of material.

Request

1. State the basis for why visual examinations will be capable of examining all of the external surfaces of the tube. Alternatively, provide an inspection technique that is capable of examining heat exchanger tubes in order to detect loss of material due to general, pitting and crevice corrosion (e.g., eddy current).
2. State configuration details such as tube spacing, distance between rows, and access points for visual inspection.
3. If an alternative inspection technique is proposed and plant-specific procedures do not already cite this inspection technique, what changes will be incorporated into the license renewal application?

RAI 3.3.2.1.Y-3 (TRP 75 Copper Alloy)

Background

LRA Tables 3.3.2-12 and 3.3.2-13, "Control Building HVAC System," and "Miscellaneous HVAC System," respectively states that loss of material for copper alloy heat exchanger tubes externally exposed to condensation will be managed using the Internal Surfaces in Miscellaneous Piping and Ducting Components program. The program description in LRA Section B.1.25, "Internal Surfaces in Miscellaneous Piping and Ducting Components" program states that, "[v]isual inspection will be used to detect evidence of loss of material."

Issue

Because access to the external surfaces of heat exchanger tubes is typically very limited, it is unclear to the staff whether a visual inspection of the tubes' external surfaces can be reasonably expected to detect loss of material.

Request

1. State the basis for why visual examinations will be capable of examining the external surfaces of the tube. Alternatively, provide an inspection technique that is capable of examining heat exchanger tubes in order to detect loss of material due to general, pitting and crevice corrosion (e.g., eddy current).
2. State configuration details such as tube spacing, distance between rows, and access points for visual inspection.

3. If an alternative inspection technique is proposed and plant specific procedures do not already cite this inspection technique, what changes will be incorporated into the license renewal application?

RAI 3.5.1.27-1 (TRP 102 Structural Fatigue)

Background

For aging management of BWR containment structures penetration sleeves and the suppression pool liner, the GALL Report recommends that either (1) cracking due to cyclic loading be managed by the GALL Report AMPs XI.S1, "ASME Section XI, Subsection IWE," and XI.S4, "10 CFR Part 50, Appendix J," if a CLB fatigue analysis does not exist (GALL Report items II.B4.CP-37 and II.B2.1.CP-107); or (2) if a CLB fatigue analysis exists, the cumulative fatigue damage needs to be evaluated as a time limited aging analysis (TLAA) in accordance with 10 CFR 54.21(c) (GALL Report items II.B4.C-13 and II.B2.1.C-45).

Issue

LRA Table 3.5.1, item number 3.5.1-27 states, in part, that the CLB at River Bend Station (RBS) contains a fatigue analysis associated with the penetration sleeves and the suppression pool liner and therefore the aging effect of cracking due to cyclic loading is addressed under AMR item 3.5.1-9. LRA Table 3.5.1 item 3.5.1-9 addresses the aging effect of cumulative fatigue damage due to fatigue for components only when a CLB fatigue analysis exists. However, for electrical penetrations, LRA Section 4.6 states that "electrical penetrations were evaluated, and stresses were found to be so low that fatigue analysis was not required." During its review of site documentation a statement similar to that made in LRA Section 4.6 for the electrical penetrations was also found in document RBS-EP-15-00005, "TLAA-Mechanical Fatigue," Revision 0. For the suppression pool liner, a review of LRA Section 4.6 did not identify any TLAA disposition for this component. Based on its review of the LRA, audit supporting documentation, and RBS USAR, the staff found no evidence that a fatigue analysis for the electrical penetration sleeves and suppression pool liner is contained in RBS CLB or addressed as a TLAA in the LRA. Contrary to the GALL Report recommendation that cracking due to cyclic loading be managed by GALL Report AMP XI.S1 or XI.S4 if no CLB fatigue analysis exists, the applicant did not propose to manage this aging effect and did not demonstrate that a CLB fatigue analysis exists. Therefore, it is not clear how the applicant is addressing the aging effect of cracking due to cyclic loading in electrical penetration sleeves and the suppression pool liner consistent with the GALL Report recommendation. Absent consistency with the GALL Report recommendations, the SRP-LR states that additional information is needed from the applicant to describe and demonstrate that its proposed method will be adequate to manage the aging effects.

Request

If the RBS CLB contains a fatigue analysis for the electrical penetration sleeves and suppression pool liner, state the respective TLAA dispositions for these components in accordance with 10 CFR 54.21(c). If there is no CLB fatigue analysis for these components, clarify if the associated aging effects will be managed by the GALL Report AMPs XI.S1 and XI.S4. If the GALL Report recommendations will not be followed, describe the proposed method to manage the aging effect of cracking due to cyclic loading for the electrical penetration sleeves and suppression pool liner, and provide the technical basis for concluding that the proposed method is adequate to manage the associated aging effect so that the intended

function(s) will be maintained consistent with the CLB for the period of extended operation, in accordance with 10 CFR 54.21(a)(3).

RAI 3.6.2.2.2-1 (TRP 80 High Voltage Insulators)

LRA 3.6.2.2.2 Degradation of Insulator Quality due to Presence of Any Salt Deposits and Surface Contamination, and Loss of Material due to Mechanical Wear

Background

Section 3.6.2.2.2 of SRP-LR, "Reduced Insulation Resistance due to Presence of Any Salt Deposits and Surface Contamination, and Loss of Material due to Mechanical Wear Caused by Wind Blowing on Transmission Conductors" states that: "Loss of material due to mechanical wear caused by wind blowing on transmission conductors could occur in high-voltage insulators. The GALL Report recommends further evaluation of a plant-specific AMP to ensure that this aging effect is adequately managed." The GALL report also recommends further evaluation of plant-specific AMP for potential salt deposits and surface contamination.

In LRA 3.6.2.2.2, the applicant references SRP-LR for further evaluation of the above aging mechanisms and effects for high-voltage insulators. Table 3.6.1, line item numbers 3.6.1-2 and 3.6.1-3 identify the component as: "High voltage insulators composed of porcelain, malleable iron, aluminum, galvanized steel and cement." The corresponding items in Table 3.6.2 of the LRA identify the material as: "Porcelain, galvanized metal and cement."

During the audit, the staff noted that in-scope high-voltage insulators on the 230 kV transmission lines are constructed of polymer material rather than the porcelain material listed in LRA Table 3.6.1 and Table 3.6.2. The applicant stated that the porcelain insulators had recently been replaced with new insulators made of polymeric material. The actual material (polymer) used in construction of the existing in-scope high-voltage insulators are not identified in the applicant's LRA.

The applicant's Table 3.6.2 items corresponding to 3.6.1-2 and 3.6.1-3 cite generic note I, "Aging effect in NUREG-1801 for this component, material and environment combination is not applicable." This generic note is appropriate for instances where the material used at the plant are the same as those listed in GALL.

Issue

- The staff noted a discrepancy between LRA Table 3.6.1 and Table 3.6.2 in describing the material used for high-voltage insulators. Table 3.6.2 of the LRA is inconsistent with Table 3.6.1 in that it has omitted malleable iron and aluminum in the list of material that make up this component. It is not clear whether this discrepancy is based on a plant-specific evaluation which has determined a lack of such material for high-voltage insulators at RBS or a result of inadvertent omission.
- The material listed in the applicant's LRA Table 3.6.1 and Table 3.6.2 is inconsistent with the actual material used for RBS high-voltage insulators. Polymeric material on the existing components in RBS is not included and has not been evaluated in GALL. The applicant's LRA does not address this inconsistency with GALL and does not provide a further evaluation discussion of the operating experience and aging management requirements of polymeric material used in RBS.

- The applicant's citing of generic note I, "Aging effect in NUREG-1801 for this component, material and environment combination is not applicable," is not appropriate for high-voltage insulators that are constructed of material not included in GALL.

Request

1. Clarify the discrepancy between LRA Table 3.6.1 items 3.6.1-2 and 3.6.1-3 with the two corresponding Table 3.6.2 components that omitted malleable iron and aluminum from the material listed for high-voltage insulators.
2. Justify why the actual material used for high-voltage insulators is not listed in the LRA, or revise the LRA to include polymeric material. Provide a discussion of operating experience, surface buildup of contaminations, aging studies, and any site-specific aging management program needed to ensure that the aging effects for these components composed of polymers will be adequately managed. Describe what parameters will be monitored or inspected to detect the AERM and how the frequency of inspection will be established. If no program will be used, justify why loss of material, deposits, and surface contamination are not applicable for these polymeric material exposed to outdoor air.
3. Revise LRA Table 3.6.2, "Discussion" column to reflect the appropriate evaluation of the high-voltage insulation material that is not in GALL.

RAI B.1.2-1 (TRP 19 Bolting Integrity)

Background

The "detection of aging effects" program element of GALL Report AMP XI.M18, "Bolting Integrity," recommends periodic visual inspections (at least once per refueling cycle) of closure bolting for signs of leakage to ensure the detection of age-related degradation due to loss of material and loss of preload. Through periodic inspection of pressure boundary components for signs of leakage, the program will ensure that age-related degradation of closure bolting is detected and corrected before component leakage becomes excessive.

LRA Section B.2.1, "Bolting Integrity," states that the Bolting Integrity Program is an existing program, with exceptions and enhancements, which will be consistent with GALL Report AMP XI.M18. The LRA credits the Bolting Integrity Program to manage closure bolting on air/gas-filled systems (e.g., compressed air system; combustible gas control system; control building heating, ventilation, and air conditioning (HVAC) system; HVAC-containment cooling system; HVAC-diesel generator system; etc.). Enhancement 3 to the "detection of aging effects" program element states, in part, that the program will be revised to specify visual inspection of a representative sample of closure bolting (bolt heads, nuts, and threads) in air environments.

Issue

It is not clear if the "air environment" referenced in Enhancement 3 applies to closure bolting that is exposed to an external air environment or if it applies to closure bolting exposed to an internal air/gas environment (i.e., air/gas-filled systems). In addition, for air/gas-filled systems, it is not clear how visual inspections can detect signs of leakage of clear gaseous fluids. Therefore, it is not clear how signs of leakage from air/gas filled systems will be detected to ensure the detection of age-related degradation due to loss of material and loss of preload before there is a loss of intended function.

Request

State whether Enhancement 3 applies to systems with an air/gas internal environment (i.e., air/gas-filled systems). For each of the air/gas filled systems with closure bolting in-scope of license renewal, describe the proposed method(s) (including sample size, type, and frequency of inspections as applicable) to detect signs of air/gas leakage on closure bolted connections and provide the basis to demonstrate that such method(s) will ensure the detection of age-related degradation due to loss of material and loss of preload before there is a loss of intended function.

RAI B.1.2-2 (TRP 19 Bolting Integrity)

Background

LRA Section B.1.2, "Bolting Integrity," states that the Bolting Integrity Program is an existing program, with exceptions and enhancements, which will be consistent with GALL Report AMP XI.M18, "Bolting Integrity." The "detection of aging effects" program element of GALL Report AMP XI.M18, "Bolting Integrity," recommends periodic inspections (at least once per refueling cycle) of closure bolting for signs of leakage to ensure the detection of age-related degradation due to loss of material and loss of preload. The LRA states an enhancement (Enhancement 1) to the "scope of program" program element to include submerged closure bolting in its program procedures.

The LRA also states in Exception 2 to the "detection of aging effects" program element that "[s]ubmerged pressure retaining bolting will be inspected at least once every 10 years." This is an exception to the GALL Report recommendation that pressure-retaining bolting be inspected at least once every refueling cycle. In its bases for Exception 2 the applicant states in part the following:

- Accessible surfaces of the suppression pool suction strainer submerged stainless steel bolting will be subjected to visual inspection of the bolt heads, nuts, and threaded bolt shank beyond the nut.
- Other submerged pressure-retaining bolting is associated with pumps that are periodically removed and inspected during maintenance and will thus be subject to visual inspections at a sufficient frequency to detect aging effects prior to a loss of intended function.
- Submerged bolting periodically inspected by divers is subject to visual inspection of accessible surfaces of bolting to manage loss of material and divers will also verify that the bolting is hand tight to manage loss of preload.
- All normally submerged pressure-retaining bolting will be inspected at least once every 10 years.

Issue

In its review of Exception 2 related to the "detection of aging effects" program element, the staff noted that the applicant classified its submerged bolting in three categories: (1) suppression pool suction strainer bolting; (2) bolting associated with pumps that are periodically removed and inspected for maintenance; and (3) bolting periodically inspected by divers. The staff has the following concerns associated with Exception 2:

- It is not clear whether all submerged closure bolts related to the pumps removed for maintenance and those inspected by divers will be subject to the periodic inspections

described in categories 2 and 3 above, or if a representative sample of the population will be inspected.

- It is not clear what the frequency of the inspections would be for the submerged closure bolts related to the pumps removed for maintenance, and that periodically inspected by divers (categories 2 and 3 above, respectively). For the bolts related to the pumps removed for maintenance, it is not clear whether the program is solely crediting the maintenance activities, or if there will be periodic focused inspections in addition to the visual examination when the pumps are removed for maintenance. For the bolting related to the pumps and that periodically inspected by divers, adequate justification for using a frequency other than the GALL Report recommendation of once per refueling outage was not provided.
- For the submerged closure bolts related to the suppression pool suction strainer it is not clear how the program will detect loss of preload in a submerged environment through a visual inspection or if additional inspection methods will be available to verify bolt tightness.
- For the pumps removed for maintenance it is not clear if all surfaces of the related bolts (head, nuts, and threads) will be inspected during the maintenance activity.
- The applicant has not provided an enhancement to the program describing the methods and frequency of inspections for the submerged closure bolting.

Based on the concerns listed above it is not clear how the submerged closure bolting will be inspected such that loss of material and loss of preload can be detected prior to a loss of intended function.

Request

1. For the submerged closure bolts related to the pumps periodically removed for maintenance, and that are periodically inspected by divers, state whether periodic inspections will include all submerged bolting or if a sample of the population will be inspected. If the periodic inspections are based on a sample describe and justify the proposed sample.
2. For the submerged closure bolts related to the pumps removed for maintenance, and those periodically inspected by divers, state the frequency of inspection and provide justification.
3. For the submerged closure bolts related to the suppression pool suction strainer state whether the loss of preload aging effect will be detected through a visual inspection or state whether additional inspection methods will be used to verify bolt tightness.
4. For the submerged closure bolts related to the pumps being removed for maintenance, clarify if all surfaces of the closure bolt (head, nuts, and threads) will be inspected during their removal.
5. State and justify whether an enhancement to the program is needed to discuss the aging management of submerged closure bolting.

RAI B.1.28-1 (TRP 51 Inaccessible Power Cables Not Subject to 10 CFR 50.49 EQ Requirements)

LRA AMP B.1.28, Non-EQ Inaccessible Power Cables (>400V)

Background

In the LRA, the applicant states that B.1.28, “Non-EQ Inaccessible Power Cables (>400V),” is a new condition monitoring program that will be consistent with the program elements in GALL

Report AMP XI.E3, “Inaccessible Power Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements.”

The preventive actions element of the GALL Report AMP XI.E3 includes inspection and operational verification of dewatering devices prior to any known or predicted heavy rain or flooding event.

The corrective actions element of the GALL Report AMP XI.E3 includes a statement for evaluation to consider the significance of the test or inspection results, the operability of the component, the reportability of the event, the extent of concern, the potential root causes for not meeting the test or inspection acceptance criteria, the corrective actions required, and the likelihood of occurrence.

Issue

- The applicant’s proposed preventive actions element as described in RBS-EP-15-00009 “Aging Management Program Evaluation Results – Electrical” does not include the provisions in GALL Report AMP XI.E3 which calls for inspection and operational verification of dewatering devices prior to known or predicted heavy rain or storms.

- The applicant’s proposed corrective actions element as described in RBS-EP-15-00009 “Aging Management Program Evaluation Results – Electrical” does not include the provisions in GALL Report AMP XI.E3 which entails a statement for evaluation to consider the significance of the test or inspection results, the operability of the component, the reportability of the event, the extent of concern, the potential root causes for not meeting the test or inspection acceptance criteria, the corrective actions required, and the likelihood of occurrence.

- Inspection and operational verification of dewatering devices prior to any known or predicted heavy rain or flooding event is not mentioned in the LRA USAR supplement A.1.28 as described in SRP-LR Table 3.0-1, “FSAR Supplement for Aging Management of Applicable Systems.”

Request

1. Explain how the proposed preventive actions element of AMP B.1.28, “Non-EQ Inaccessible Power Cables (>400V)” is consistent with GALL Report AMP XI.E3 while missing the provisions for operational verification of dewatering devices prior to known or predicted heavy rain or storms.

2. Explain how the proposed corrective actions element of AMP B.1.28, “Non-EQ Inaccessible Power Cables (>400V)” is consistent with GALL Report AMP XI.E3 while missing the provisions for evaluation to consider the significance of the test or inspection results, the operability of the component, the reportability of the event, the extent of concern, the potential root causes for not meeting the test or inspection acceptance criteria, the corrective actions required, and the likelihood of occurrence.

3. Revise LRA USAR supplement A.1.28 to include inspection and operational verification of dewatering devices prior to any known or predicted heavy rain or flooding event as described in SRP-LR, Table 3.0-1, or explain how the description of the program in LRA USAR supplement A.1.28 is adequate for managing the effects of aging.

RAI B.1.29-1 (TRP 49 Insulation Material for Electrical Cables – Connections Not Subject to 10 CFR 50.49 EQ Requirements)

LRA B.1.29 Non-EQ Insulated Cables and Connections

Background
Parameters monitored/inspected element of the GALL Report AMP XI.E1 recommends to inspect all accessible electrical cables and connections installed in adverse localized environments. The applicant's proposed corresponding program element as described in RBS-EP-15-00009 "Aging Management Program Evaluation Results – Electrical" states that samples of accessible cable will represent, with reasonable assurance, all cables and connections in adverse localized environments.

Corrective action element of the GALL Report AMP XI.E1 recommends that when an unacceptable condition or situation is identified, a determination is made as to whether the same condition or situation is applicable to inaccessible cables or connections. The applicant's proposed corresponding program element as described in RBS-EP-15-00009 "Aging Management Program Evaluation Results – Electrical" states that when an adverse localized environment is identified for the insulation material of a cable or connection, a determination will be made as to whether the same condition or situation is applicable to other accessible or inaccessible cables or connections.

In LRA A.1.29, the applicant states: "The program sample consists of all accessible cables and connections in adverse localized environment. This program sample of accessible cables will represent, with reasonable assurance, all cables and connections in adverse localized environments."

Issue

- The applicant's sample inspection of accessible cables and connections is inconsistent with GALL AMP XI.E1 which recommends to inspect all accessible cables and connections in adverse localized environment.

- The applicant's proposed corrective action program element as described in RBS-EP-15-00009 appears to inspect a sample of accessible cables and connections in adverse localized environment, and when an unacceptable condition or situation is identified, a determination is made to whether the same condition or situation is applicable to other accessible and inaccessible cables and connections in the adverse localized environment. The corresponding GALL Report XI.E1 recommends inspecting all accessible cables and connections in adverse localized environment. When an unacceptable condition or situation is identified for a cable or connection in the inspection, a determination is made as to whether the same condition or situation is applicable to inaccessible cables and connections. As such the applicant program appears not to be consistent with GALL program. Specifically, the applicant's sample inspection of accessible vs. inspection of all accessible cables and connections recommended by the GALL Report in adverse localized environment.

- It appears that sampling of accessible cables and connections in adverse localized environments as described in the applicant's LRA USAR supplement is not consistent

with the description of program in SRP-LR. Table 3.0-1 of SRP-LR states that the program consists of all accessible electrical cable and connections installed in adverse localized environments to be visually inspected.

Request

1. Explain how the sample inspection in parameters monitored/inspected element as described in RBS-EP-15-00009 is consistent with GALL, or provide justification of how the sample inspection of accessible cables and connections is adequate to manage the aging effects of all cables and connections in adverse localized environment.
2. Explain how the corrective actions element as described in RBS-EP-15-00009 is consistent with GALL, or provide justification of how the proposed corrective actions are adequate to manage the aging effects of all cables and connections in adverse localized environment.
3. Explain how the LRA USAR supplement A.1.29 description is consistent with Table 3.0-1 of the SRP-LR, or explain how the same inspection in LRA USAR supplement A.1.29 is adequate for managing the effects of aging as described in SRP-LR, Table 3.0-1.