



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

March 24, 2015
NOC-AE-15003236
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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Reference Correction to Request for Additional Information Set 27 - South Texas Project
License Renewal Application (TAC NOS. ME4936 and ME4937)

Reference: STPNOC Letter from G. T. Powell to NRC Document Control Desk, "License Renewal Application", dated June 3, 2014 (NOC-AE-14003141) (ML14163A020)

By the referenced letter, STP Nuclear Operating Company (STPNOC) submitted a response to Request for Additional Information (RAI) for the review of the South Texas Project, Units 1 and 2, License Renewal Application – Set 27 (TAC Nos. ME4936 and ME4937).

STP Nuclear Operating Company provided its responses to RAI 3.0.3-1, "Guidance from LR-ISG-2012-02", Part E, "Corrosion Under Insulation", related to STPNOC's Aging Management Program, (AMP). This RAI response provided the basis for managing corrosion under insulation in external surfaces of indoor insulated components that are exposed to indoor air environment and operate below the dew point, and in the external surfaces of insulated outdoor piping and tanks that are exposed to an outdoor air environment.

An error on page 12 of 18 was identified that stated that STP uses AMP XI.M38 (B2.1.22), Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components program to manage the aging effect of loss of material for indoor stainless steel tanks. The appropriate program is AMP XI.M36 (B2.1.20), External Surfaces Monitoring of Mechanical Components program.

This correspondence also includes additional editorial markups that do not change the intent of the previous submittal.

The enclosure in this correspondence provides a Line-in Line-out correction to the respective section in the Set 27 RAI response, and identifies the appropriate AMP program.

STI: 34074597

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NRC

Should you have any questions regarding this letter, please contact Arden Aldridge, STP License Renewal Project Lead, at (361) 972-8243, or Rafael Gonzales, STP License Renewal Project regulatory point-of-contact, at (361) 972-4779.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 24, 2015
Date



G. T. Powell
Site Vice President

rjg

Enclosure: STPNOC License Renewal Application (LRA) Line-in/Line-out Annotation
Changes to RAI Set 27

cc:
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Enclosure

**STPNOC License Renewal Application (LRA) Line-
in/Line-out Annotation Changes to RAI Set 27**

GALL AMP XI.M29, Aboveground Metallic Tanks, is not credited to manage the external surfaces aging effects of tanks. STP uses AMP XI.M38 (B2.1.22), Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components XI.M36 (B2.1.20), External Surfaces Monitoring of Mechanical Components program to manage the external surfaces aging effect of loss of material for indoor stainless steel tanks. There are no insulated outdoor tanks at STP.

Insulated Components Operating Below the Dew Point or Installed Outdoors

System Id	Component Type	Material	External Environment	LRA Table	AMP
AF	Piping, piping components, and piping elements	Carbon Steel, Stainless Steel	Atmosphere/ Weather	3.4.2-6 (Revised)	External Surfaces Monitoring Program (B2.1.20)
BA IA	Piping, piping components, and piping elements	Carbon Steel	Plant Indoor Air	3.3.2-7	External Surfaces Monitoring Program (B2.1.20)
CC	Piping, piping components, and piping elements	Carbon Steel	Plant Indoor Air	3.3.2-6	External Surfaces Monitoring Program (B2.1.20)
CH	Piping, piping components, and piping elements	Carbon Steel	Plant Indoor Air	3.3.2-9	External Surfaces Monitoring Program (B2.1.20)
CV	Piping, piping components, and piping elements	Carbon Steel, Stainless Steel	Plant Indoor Air	3.3.2-19 (Revised)	External Surfaces Monitoring Program (B2.1.20)
CV	Tanks	Carbon Steel, Stainless Steel	Plant Indoor Air	3.3.2-19 (Revised)	External Surfaces Monitoring Program (B2.1.20)
DR	Piping, piping components, and piping elements	Carbon Steel	Plant Indoor Air	3.3.2-24	External Surfaces Monitoring Program (B2.1.20)
DW	Piping, piping components, and piping elements	Carbon Steel, Stainless Steel	Plant Indoor Air	3.4.2-4 (Revised)	External Surfaces Monitoring Program (B2.1.20)
EP	Piping, piping components, and piping elements	Carbon Steel	Plant Indoor Air	3.3.2-27	External Surfaces Monitoring Program (B2.1.20)
FP	Piping, piping components, and piping elements	Carbon Steel	Plant Indoor Air	3.3.2-17	External Surfaces Monitoring Program (B2.1.20)

System Id	Component Type	Material	External Environment	LRA Table	AMP
MS	Piping, piping components, and piping elements	Carbon Steel	Plant Indoor Air	3.4.2-1	External Surfaces Monitoring Program (B2.1.20)
SS	Piping, piping components, and piping elements	Stainless Steel	Plant Indoor Air	3.3.2-27 (Revised)	External Surfaces Monitoring Program (B2.1.20)
HE	Ductwork Dampers Air Handlers	Carbon Steel, Carbon Steel	Plant Indoor Air Ventilation Atmosphere	3.3.2-10	External Surfaces Monitoring Program (B2.1.20)
HF	Ductwork Dampers Air Handlers	Carbon Steel, Carbon Steel (Galvanized) Stainless Steel	Plant Indoor Air Ventilation Atmosphere	3.3.2-11	External Surfaces Monitoring Program (B2.1.20)
HM	Ductwork Dampers Air Handlers	Carbon Steel, Carbon Steel Stainless Steel	Plant Indoor Air	3.3.2-12	External Surfaces Monitoring Program (B2.1.20)

Notes for Table 3.1.2-2:

Standard Notes:

- A Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- B Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- C Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- D Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- E Consistent with NUREG-1801 for material, environment, and aging effect, but a different aging management program is credited or NUREG-1801 identifies a plant-specific aging management program.
- F Material not in NUREG-1801 for this component.
- H Aging effect not in NUREG-1801 for this component, material and environment combination.

Plant Specific Notes:

- 1 Water Chemistry (B2.1.2) and ASME Section XI, Inservice Inspection, Subsections IWB, IWC, and IWD (B2.1.1) are used to manage this aging effect for Cast Austenitic Stainless Steel (CASS) components.
- 2 The Water Chemistry program (B2.1.2) and the One-Time Inspection program (B2.1.16) manage loss of material due to pitting and crevice corrosion and cracking due to stress corrosion cracking. The One-Time Inspection program (B2.1.16) includes selected components at susceptible locations.
- 3 Component is part of RCP oil collection system.
- 4 This non NUREG-1801 line item was created because there is no line item for a component made of nickel alloy with borated water leakage (Ext) with an aging effect of cracking/ stress corrosion cracking.
- 5 Loss of Preload is conservatively considered to be applicable for all closure bolting.
- 6 The aging effect of reduced thermal insulation resistance due to moisture intrusion is managed by AMP B2.1.20, External Surfaces Monitoring Program. Reference LR-ISG-2012-02 Appendix C Item VII.I.S-403.

Notes for Table 3.3.2-19:

Standard Notes:

- A Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- B Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- C Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- D Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- E Consistent with NUREG-1801 for material, environment, and aging effect, but a different aging management program is credited or NUREG-1801 identifies a plant-specific aging management program.
- F Material not in NUREG-1801 for this component.
- G Environment not in NUREG-1801 for this component and material.
- H Aging effect not in NUREG-1801 for this component, material, and environment combination.
- J Neither the component nor the material and environment combination is evaluated in NUREG-1801.

Plant Specific Notes:

- 1 NUREG-1801 does not address the aging effect of nickel-alloys in borated water leakage. Nickel-alloys subject to an air with borated water leakage environment are similar to stainless steel in a borated water leakage environment and do not experience aging effects due to borated water leakage.
- 2 The Water Chemistry program (B2.1.2) and the One-Time Inspection program (B2.1.16) manage loss of material due to pitting and crevice corrosion and cracking due to stress corrosion cracking. The One-Time Inspection program (B2.1.16) includes selected components at susceptible locations.
- 3 Non-inhibited copper alloy > 15% zinc SSCs with surfaces exposed to ventilation atmosphere (internal) or plant indoor air (internal) are subject to wetting due to condensation and thus are subject to loss of material due to selective leaching.
- 4 The reduction of heat transfer aging effect is not identified in NUREG-1801 for this component, material, and environment combination. Reduction of heat transfer is not expected in heat exchangers with reactor coolant or treated borated water environments as long as water chemistry is maintained. Reduction of heat transfer is managed with Water Chemistry (B2.1.2) and One Time Inspection (B2.1.16).
- 5 The aging effect of reduced thermal insulation resistance due to moisture intrusion is managed by AMP B2.1.20, External Surfaces Monitoring Program. Reference LR-ISG-2012-02 Appendix C Item VII.I.S-403.
- 6 The External Surfaces Monitoring program (B2.1.20) is used to monitor insulated stainless steel components exposed to plant indoor air for loss of material. Reference LR-ISG-2012-02 Appendix C Line VII.A2.A-405

Notes for Table 3.4.2-1:

Standard Notes:

- A Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- B Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- C Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- D Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- E Consistent with NUREG-1801 for material, environment, and aging effect, but a different aging management program is credited or NUREG-1801 identifies a plant-specific aging management program.
- G Environment not in NUREG-1801 for this component and material.
- H Aging effect not in NUREG-1801 for this component, material and environment combination.
- J Neither the component nor the material and environment combination is evaluated in NUREG-1801.

Plant Specific Notes:

- 1 The Water Chemistry program (B2.1.2) and the One-Time Inspection program (B2.1.16) manage loss of material due to pitting and crevice corrosion and cracking due to stress corrosion cracking. The One-Time Inspection program (B2.1.16) includes selected components at susceptible locations.
- 2 The aging effect of reduced thermal insulation resistance due to moisture intrusion is managed by AMP B2.1.20, External Surfaces Monitoring Program. Reference LR-ISG-2012-02 Appendix C Item VIII.I.S-403.

Notes for Table 3.4.2-3:

Standard Notes:

- A Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- B Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- C Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- D Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- H Aging effect not in NUREG-1801 for this component, material and environment combination.
- J Neither the component nor the material and environment combination is evaluated in NUREG-1801.

Plant Specific Notes:

- 1 Loss of preload is conservatively considered to be applicable for all closure bolting.
- 2 The aging effect of reduced thermal insulation resistance due to moisture intrusion is managed by AMP B2.1.20, External Surfaces Monitoring Program. Reference LR-ISG-2012-02 Appendix C Item VIII.I.S-403.

Notes for Table 3.4.2-5:

Standard Notes:

- A Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- B Consistent with NUREG-1801 item for component, material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP.
- C Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP is consistent with NUREG-1801 AMP.
- D Component is different, but consistent with NUREG-1801 item for material, environment, and aging effect. AMP takes some exceptions to NUREG-1801 AMP
- E Consistent with NUREG-1801 for material, environment, and aging effect, but a different aging management program is credited or NUREG-1801 identifies a plant-specific aging management program.
- H Aging effect not in NUREG-1801 for this component, material and environment combination.
- J Neither the component nor the material and environment combination is evaluated in NUREG-1801.

Plant Specific Notes:

- 1 Loss of preload is conservatively considered to be applicable for all closure bolting.
- 2 The Water Chemistry program (B2.1.2) and the One-Time Inspection program (B2.1.16) manages loss of material due to pitting and crevice corrosion and cracking due to stress corrosion cracking. The One-Time Inspection program (B2.1.16) includes selected components at susceptible locations.
- 3 The aging effect of reduced thermal insulation resistance due to moisture intrusion is managed by AMP B2.1.20, External Surfaces Monitoring Program. Reference LR-ISG-2012-02 Appendix C Item VIII.I.S-403.