



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

May 25, 2018

Mr. William F. Maguire  
Site Vice President  
River Bend Station, Unit 1  
Entergy Operations, Inc.  
5485 U.S. Highway 61 N  
St. Francisville, LA 70775

SUBJECT: SUMMARY OF A TELEPHONE CONFERENCE CALL HELD ON  
APRIL 25, 2018, BETWEEN THE U.S. NUCLEAR REGULATORY  
COMMISSION AND ENTERGY REGARDING THE NEED FOR ADDITIONAL  
INFORMATION TO SUPPORT THE RIVER BEND STATION, UNIT 1 LICENSE  
RENEWAL APPLICATION REVIEW (CAC NO. MF9757)

Dear Mr. Maguire:

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of Entergy Operations, Inc. (the applicant) held a telephone conference call on April 25, 2018, to discuss the applicant's response to a previously issued Request for Additional Information (RAI). The telephone conference call was held at the request of NRC to clarify the applicant's response on this RAI.

Enclosure 1 lists the call participants. Enclosure 2 includes the chronology of the original RAI and the applicant's response, and Enclosure 3 includes a summary of the conference call. Mr. Dave Lach of your staff agreed to provide supplemental information to the April 4, 2018 response within 30 days from the date of the telephone conference call. The applicant had an opportunity to comment on this summary.

If you have any questions, please contact me by telephone at 301-415-4084 or via e-mail at [Emmanuel.Sayoc@nrc.gov](mailto:Emmanuel.Sayoc@nrc.gov).

Sincerely,

***/RA Albert Wong for/***

Emmanuel Sayoc, Project Manager  
License Renewal Project Branch  
Division of Materials and License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-458

Enclosures:

1. List of Participants
2. Chronology of the RAI Discussed
3. Summary of the Conference Call

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DATE	05/24/2018	05/24/2018	05/25/2018	05/25/2018

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LIST OF PARTICIPANTS FOR THE APRIL 25, 2018  
TELEPHONE CONFERENCE CALL

PARTICIPANTS

AFFILIATIONS

Bill Holston	U.S. Nuclear Regulatory Commission (NRC)
Brian Allik	NRC
Emmanuel Sayoc	NRC
Albert Wong	NRC
Garry Young	Entergy Nuclear Operations Inc. (Entergy)
Alan Cox	Entergy
Dave Lach	Entergy
Herbert Rideout	Entergy
Ted Ivy	Entergy
Steve McKissack	Entergy
Mark Spinelli	Entergy
Jim Morgan	Entergy
Randy Gauthreaux	Entergy
Reggie Jackson	Entergy
Lisa Borel	Entergy
Mark Sandusky	Entergy
Mike Cooper	Entergy

CHRONOLOGY OF THE RAIs DISCUSSED DURING THE APRIL 25, 2018  
TELEPHONE CONFERENCE CALL

ORIGINAL RAI#	TRP#	RAI Set No.	Date of the Original RAI Issued	Date of Applicant's Response
B.1.4-1 Buried Pipe	035	5	December 13, 2017 (ML17347B432)	January 24, 2018 (ML18025B750)
Summary of Public Telephone Call on RAI B.1.4-1 Held on March 6, 2018	035	5	March 28, 2018 (ML18078A755)	April 4, 2018 (ML18094A137)

## SUMMARY OF THE APRIL 25, 2018 TELEPHONE CONFERENCE CALL

The following issue was discussed with the applicant during the call. The applicant stated they understood the staff's concerns and would supplement their previous response, dated April 4, 2018, within 30 days from the date of the telephone conference call.

### **Issue RAI B.1.4-1b Buried Pipe**

**Background.** The response to RAI B.1.4-1, dated April 4, 2018, provided updated design information regarding the type of coatings applied to buried stainless steel piping. The RAI response states that in addition to coal tar epoxy, buried stainless steel piping is specified to be coated with silicone-based heat-resistant coatings, specifically Thurmalox® 70 or Carboline 4674.

The staff reviewed the technical product data sheets for Thurmalox® 70 and Carboline 4674 and noted that these coatings are not recommended for immersion service. The *Encyclopedia of Chemical Processing and Design: Volume-50*, John J. McKetta Jr, 1994, page 250, states “[a]lthough typical silicone-based heat-resistant coatings work well, they do have some limitations. They are not intended for immersion service” and “[e]ven when properly cured, these coatings are softer than most organic finishes.”

**Issue.** Although appropriate for high temperature applications, silicone-based heat-resistant coatings are not consistent with the “preventive actions” program element of GALL Report AMP XI.M41, as modified by LR-ISG-2015-01, “Changes to Buried and Underground Piping and Tanks Recommendations.” GALL Report AMP XI.M41, “Buried and Underground Piping and Tanks Inspection,” as modified by LR-ISG-2015-01, states that a broader range of coatings may be used if justification is provided in the LRA; however, it is unclear to the staff how silicone-based heat-resistant coatings can be capable of restricting moisture penetration and electrically isolating the base metal given that they are not recommended for aqueous environments (e.g., groundwater) and may be more susceptible to damage and wear due to ground movement of deleterious material in backfill.

**Request.** State the basis for why silicone-based heat-resistant coatings, specifically Thurmalox® 70 or Carboline 4674, meet the intent of the “preventive actions” program element of GALL Report AMP XI.M41, as modified by LR-ISG-2015-01 in regard to the unsuitability for immersion service and potential issues with durability of the coating.

Absent an adequate basis associated with the above two limitations, state how many inspections will be conducted per 10-year period and the basis for why the number of inspections will be adequate to manage associated aging effects.