



January 3, 2017

10 CFR 54
SBK-L-16207
Docket No. 50-443

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Seabrook Station
Supplement 51 - Clarification of Supplement 50 – Changes to Buried and Underground Piping
and Tank Recommendations

References:

1. NextEra Energy Seabrook LLC, letter SBK-L-10077, "Seabrook Station Application for Renewed Operating License," May 25, 2010 (Accession Number ML101590099).
2. License Renewal Interim Staff Guidance, LR-ISG-2015-01 "Changes to Buried and Underground Piping and Tank Recommendations."
3. NextEra Energy Seabrook, LLC letter SBK-L-16156, "Response to Issuance of LR-ISG-2015-01, Changes to Buried and Underground Piping and Tank Recommendations," October 07, 2016 (Accession Number ML16286A631).
4. NRC, "Requests for Additional Information for the Review of the Seabrook Station License Renewal Application (CAC NO. ME4028)," November 14, 2016 (Accession Number ML16301A428).
5. NextEra Energy Seabrook, LLC letter SBK-L-16186, "Supplement 50 – Response to Requests for Additional Information for the Review of the Seabrook Station License Renewal Application (CAC NO. ME4028) – Changes to Buried and Underground Piping and Tank Recommendations," November 23, 2016 (Accession Number ML16333A407).

In Reference 1, NextEra Energy Seabrook, LLC (NextEra Energy Seabrook) submitted an application for a renewed facility operating license for Seabrook Station Unit 1 in accordance with the Code of Federal Regulations, Title 10, Parts 50, 51, and 54.

In Reference 2, the NRC issued License Renewal Interim Staff Guidance, LR-ISG-2015-01 – Changes to Buried and Underground Piping and Tank Recommendations. The guidance

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provided within this ISG was utilized to develop NextEra Energy Seabrook's Buried Piping and Tanks Inspection Aging Management Program.

In Reference 3, NextEra Energy Seabrook provided the Staff with letter SBK-L-16156, "Response to Issuance of LR-ISG-2015-01, Changes to Buried and Underground Piping and Tank Recommendations."

In Reference 4, the NRC requested additional information related to the Buried and Underground Piping and Tank Aging Management Program submittal (Reference 3).

In Reference 5, NextEra Energy Seabrook provided the Staff with letter SBK-16186, "Supplement 50 – Response to Requests for Additional Information for the Review of the Seabrook Station License Renewal Application (CAC.NO. ME4028) – Changes to Buried and Underground Piping and Tank Recommendations."

On December 6, 2016, the NRC staff and Seabrook Station License Renewal team conducted a conference call to clarify portions of the previous request for additional information response (Reference 5) from Seabrook Station.

The Enclosure includes changes to the LRA. To facilitate understanding, the changes are explained, and where appropriate, portions of the LRA are repeated with the change highlighted by strikethroughs for deleted text and bolded italics for inserted text.

There are no new or revised regulatory commitments contained in this letter.

If there are any questions or additional information is needed, please contact Mr. Edward J. Carley, Engineering Supervisor - License Renewal, at (603) 773-7957.

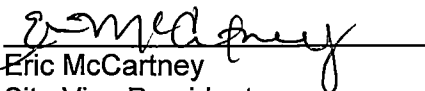
If you have any questions regarding this correspondence, please contact Mr. Kenneth Browne, Licensing Manager, at (603) 773-7932.

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

Executed on January 3, 2017.

Sincerely,

NextEra Energy Seabrook, LLC


Eric McCartney
Site Vice President

Enclosure: Supplement 51 - Clarification of Supplement 50 – Changes to Buried and Underground Piping and Tank Recommendations.

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Enclosure to SBK-L-16207

**Supplement 51 - Clarification of Supplement 50 -
Changes to Buried and Underground Piping and Tank Recommendations.**

On 12/06/2016, the NRC staff and NextEra Energy Seabrook license renewal team members conducted a discussion of components that are copper alloy >15% zinc, and the dependence of cathodic protection and inspection frequency on these components that are within scope of the Buried Piping and Tanks Inspection Aging Management Program. The following changes within the LRA, section B.2.1.22, are shown below. Table 2 has been formatted to ensure clear understanding between buried, underground, and inaccessible submerged piping inspections.

2nd Paragraph of ELEMENT 4 - Detection of Aging Effects

Pipe to soil potential and the cathodic protection current are monitored for steel piping in contact with soil to determine the effectiveness of cathodic protection systems and, thereby, the effectiveness of corrosion mitigation. ~~There is no cathodic protection for in scope copper alloy (>15% zinc) material as there are only in scope components, not piping.~~ The **A single** drain valves on the spools in **within** the Service Water vault and valve pit are **is** constructed of aluminum bronze (categorized as "copper alloy >15% zinc") with aluminum bronze body to bonnet bolting. These components will be inspected for loss of material **and any leakage caused by loss of pre-load with the body to bonnet bolting** when the associated pipe segment is inspected by this program **as shown in Table 2.**

Directed Inspections – Inaccessible Submerged Pipe

The number of inspections required during each 10 year interval is **are** shown in the **Tables 2** below. With the exception of backfill and soil resistivity criteria, inaccessible submerged piping will be inspected to the same extent as buried piping. The aluminum bronze drain valves attached to these **steel SW** piping segments will also be inspected for loss of material, **and any leakage caused by loss of pre-load with the body to bonnet bolting** when the associated pipe segment is inspected.

Table 2 - Inspections of Buried, Underground, Piping and Inaccessible Submerged Piping			
<i>Buried Piping Inspections</i>			
Material	Prevention Preventive Action Categories	Inspections ^{1,2}	Systems Currently in Category
Stainless Steel		1 Inspection	CO, DG
Polymeric	Backfill is in accordance with preventive actions program element ³	1 Inspection	FP ⁵
	Backfill is not in accordance with preventive actions program category ³	The smaller of 1% of the length of pipe or 2 inspections	
Steel	C	The smaller of 0.5% of the piping length or 1 inspection	CBA, IA, FP ⁵ , SW ⁶ , AB ⁴ , CO, DF, DG, FW, ASC, ASH
	D	N/A	

	E	The smaller of 5% of the piping length or 3 inspections	
	F	The smaller of 10% of the piping length or 6 inspections	
Copper Alloy >15% Zinc	C	The smaller of 0.5% of the piping length or 1 inspection	SW ⁷
	D	The smaller of 1% of the piping length or 2 inspections	
	E	The smaller of 5% of the piping length or 3 inspections	
	F	The smaller of 10% of the piping length or 6 inspections	

Underground Piping Inspections

<i>Material</i>	<i>Inspections</i>	<i>Systems Currently in Category</i>
Steel	The smaller of 2% of the piping length or 2 inspections	ASC, ASH

Inaccessible Submerged Piping Inspections

Steel	The smaller of 2% of the piping length or 2 inspections	SW⁶
Copper Alloy >15% Zinc	2 inspections	SW⁷

GENERAL NOTES:

- When the inspections are based on the number of inspections in lieu of percentage of piping length, 10 feet of piping is exposed for each inspection.
- When the percentage of inspections for a given material type results in an inspection quantity of less than 10 feet, then 10 feet of piping is inspected. If the entire run of piping of that material type is less than 10 feet in total length, then the entire run of piping is inspected.
- The adequacy of backfill will be determined by the condition of coatings and base materials noted during inspections. If damage to the coatings or base materials is determined to have been caused by the backfill, the backfill will be considered to be "inadequate" (for the purpose of this program).
- This line is not in use. It has been drained and flushed and is awaiting replacement. The inspection criteria for the replacement piping will be determined based material selection, coating, cathodic protection, and quality of backfill.
- If Fire Protection piping is inspected by excavation in lieu of by alternative testing (e.g., flow test, jockey pump monitoring), and the extent of examinations is not based on the percentage of piping in the material group, the Not-to-Exceed (NTE) value will be increased by 1 inspection, if normally less than 10, or 2 inspections, if normally 10 or greater.
- The Service Water vault located north of the cooling tower contains four 24" lines approximately 15' long. The valve pit located north of the cooling tower contains one 32" line less than 10' long.
- ~~The drain valves on the spools in~~ **within** the Service Water vault ~~and valve pit are~~ **is** constructed of aluminum bronze (categorized as "copper alloy >15% zinc") with aluminum bronze body to bonnet bolting. These components will be inspected for loss of material when the respective Service Water spool piping is inspected by this program. There is no copper alloy >15% zinc piping within scope of this program.