



Callaway Plant

August 12, 2015

ULNRC-06236

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

10 CFR 50.90

Ladies and Gentlemen:

**DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
UNION ELECTRIC CO.
RENEWED FACILITY OPERATING LICENSE NPF-30
ADDITIONAL SUPPLEMENT TO
LICENSING DOCUMENT CHANGE NOTICE (LDCN) 14-0014
APPLICATION TO REVISE TECHNICAL SPECIFICATIONS TO ADOPT
TSTF-510, "REVISION TO STEAM GENERATOR PROGRAM INSPECTION
FREQUENCIES AND TUBE SAMPLE SELECTION," USING THE
CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS (CLIIP)**

- Reference: 1) Ameren Missouri Letter ULNRC-06174, "Licensing Document Change Notice (LDCN) 14-0014 Application to Revise Technical Specifications to Adopt TSTF-510, 'Revision to Steam Generator Program Inspection Frequencies and Tube Sample Selection,' Using the Consolidated Line Item Improvement Process (CLIIP)," dated March 9, 2015 (Accession No. ML15068A422)
- 2) Ameren Missouri Letter ULNRC-06200, "Supplement to Licensing Document Change Notice (LDCN) 14-0014 Application to Revise Technical Specifications to Adopt TSTF-510, 'Revision to Steam Generator Program Inspection Frequencies and Tube Sample Selection,' Using the Consolidated Line Item Improvement Process (CLIIP)," dated April 8, 2015 (Accession No. ML15098A575)

3) Technical Specifications Task Force Letter TSTF-12-09
"Correction to TSTF-510-A, Revision 2, 'Revision to Steam
Generator Program Inspection Frequencies and Tube Sample
Selection'" dated March 28, 2012 (Accession No.
ML12088A082)

On March 9, 2015, pursuant to 10 CFR 50.90, Union Electric Company (Ameren Missouri) transmitted a request (Reference 1) for revising the Technical Specifications in order to adopt TSTF-510, "Revision to Steam Generator Program Inspection Frequencies and Tube Sample Selection," using the Consolidated Line Item Improvement Process (CLIIP). Subsequent to submittal of the license amendment request, it was identified that some wording was inadvertently omitted from the text of the proposed revision of Technical Specification (TS) 5.5.9, "Steam Generator (SG) Program." This omission, as well as some additional minor inconsistencies with TSTF-510 and other minor errors of a typographical or editorial nature were corrected and re-submitted in Reference 2.

Subsequent to the Reference 2 submittal, an additional administrative inconsistency was identified in the text of the proposed revision of Technical Specification (TS) 5.5.9, "Steam Generator (SG) Program." Specifically, in TS 5.5.9.d.2, the word "repair" in the sentence including the words "...and that may satisfy the applicable tube repair criteria..." should be replaced with the word "plugging," so that this sentence should properly read "...and that may satisfy the applicable tube plugging criteria..." This administrative inconsistency was previously identified by the Technical Specifications Task Force (Reference 3) but was overlooked in the Reference 1 and Reference 2 submittals. Accordingly, the affected pages of Attachment 1, "Technical Specification Page Markups," and Attachment 2, "Retyped Technical Specification Pages," as provided in the Reference 2 submittal, are hereby revised and re-submitted as Attachments 1 and 2 to this letter, respectively.

Correcting this error requires a change to be made to what was proposed to be changed in the Technical Specifications, as presented in Attachments 1 and 2 of the Reference 2 submittal. The Callaway Onsite Review Committee has therefore reviewed and approved the change proposed in this supplement to the amendment request (i.e., the word change within proposed insert for TS 5.5.9.d.2) and has approved the submittal thereof. In addition, in accordance with 10 CFR 50.91 "Notice for public comment: State consultation, " Section (b)(1), a copy of this supplement to the amendment application is being provided to the designated Missouri State official.

This supplement to the amendment request involves no changes to the 10 CFR 50.92 (Basis for No Significant Hazards) evaluation or the environmental evaluation provided in Reference 1, nor does it contain new commitments. If there are any questions regarding this submittal, please contact Mr. Tom Elwood at 314-225-1905.

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

Very truly yours,

Executed on: 8/12/2015



Scott Maglio
Manager, Regulatory Affairs

DRB/nls

Attachments:

- 1 – Technical Specification Page Markups
- 2 – Retyped Technical Specification Pages

cc: Mr. Marc L. Dapas
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
1600 East Lamar Boulevard
Arlington, TX 76011-4511

Senior Resident Inspector
Callaway Resident Office
U.S. Nuclear Regulatory Commission
8201 NRC Road
Steedman, MO 65077

Mr. L. John Klos
Project Manager, Callaway Plant
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop O-8B1
Washington, DC 20555-2738

Index and send hardcopy to QA File A160.0761

Hardcopy:

Certrec Corporation
4150 International Plaza Suite 820
Fort Worth, TX 76109
(Certrec receives ALL attachments as long as they are non-safeguards and may be publicly disclosed.)

Electronic distribution for the following can be made via Tech Spec ULNRC Distribution:

F. M. Diya
D. W. Neterer
L. H. Graessle
T. E. Herrmann
B. L. Cox
L. H. Kanuckel
S. A. Maglio
T. B. Elwood
T. A. Witt
Corporate Communications
NSRB Secretary
STARS Regulatory Affairs
Mr. John O'Neill (Pillsbury Winthrop Shaw Pittman LLP)
Missouri Public Service Commission
Mr. Robert D. Stout (DNR)
Ms. Leanne Tippet-Mosby (DNR)

ATTACHMENT 1
TECHNICAL SPECIFICATION PAGE MARKUPS

5.5 Programs and Manuals

5.5.9 Steam Generator (SG) Program (continued)

- c. Provisions for SG tube ~~repair~~ criteria. Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged.

- d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube ~~repair~~ criteria. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, and d.3 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An ~~assessment of degradation~~ *assessment* shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG ~~replacement~~ *installation*.
2. ~~Inspect 100% of the tubes at sequential periods of 144, 108, 72, and, thereafter, 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. In addition, inspect 50% of the tubes by the refueling outage nearest the midpoint of the period and the remaining 50% by the refueling outage nearest the end of the period. No SG shall operate for more than 72 effective full power months or three refueling outages (whichever is less) without being inspected.~~
3. If crack indications are found in any SG tube, then the next inspection for each SG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.

- e. Provisions for monitoring operational primary to secondary LEAKAGE.

(continued)

This marked-up page is provided for reference only.

There are no changes to this marked-up page except as shown in the attached insert.

*INSERT
5.5.9.d.2*

affected and potentially affected

INSERT 5.5.9.d.2

2. After the first refueling outage following SG installation, inspect each SG at least every 72 effective full power months or at least every third refueling outage (whichever results in more frequent inspections). In addition, the minimum number of tubes inspected at each scheduled inspection shall be the number of tubes in all SGs divided by the number of SG inspection outages scheduled in each inspection period as defined in a, b, c and d below. If a degradation assessment indicates the potential for a type of degradation to occur at a location not previously inspected with a technique capable of detecting this type of degradation at this location, the minimum number of locations inspected with such a capable inspection technique during the remainder of the inspection period may be prorated. The fraction of locations to be inspected for this potential type of degradation at this location at the end of the inspection period shall be no less than the ratio of the number of times the SG is scheduled to be inspected in the inspection period after the determination that a new form of degradation could potentially be occurring at this location divided by the total number of times the SG is scheduled to be inspected in the inspection period. Each inspection period defined below may be extended up to 3 effective full power months to include a SG inspection outage in an inspection period and the subsequent inspection period begins at the conclusion of the included SG inspection outage.

and that
may satisfy
the applicable
tube repair
criteria
↓
plugging

- a) After the first refueling outage following SG installation, inspect 100% of the tubes during the next 144 effective full power months. This constitutes the first inspection period;
- b) During the next 120 effective full power months, inspect 100% of the tubes. This constitutes the second inspection period;
- c) During the next 96 effective full power months, inspect 100% of the tubes. This constitutes the third inspection period; and
- d) During the remaining life of the SGs, inspect 100% of the tubes every 72 effective full power months. This constitutes the fourth and subsequent inspection periods.

ATTACHMENT 2
RETYPE TECHNICAL SPECIFICATION PAGES

5.5 Programs and Manuals

5.5.9 Steam Generator (SG) Program (continued)

- c. Provisions for SG tube plugging criteria. Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged.
- d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube plugging criteria. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, and d.3 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. A degradation assessment shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.
 - 1. Inspect 100% of the tubes in each SG during the first refueling outage following SG installation.
 - 2. After the first refueling outage following SG installation, inspect each SG at least every 72 effective full power months or at least every third refueling outage (whichever results in more frequent inspections). In addition, the minimum number of tubes inspected at each scheduled inspection shall be the number of tubes in all SGs divided by the number of SG inspection outages scheduled in each inspection period as defined in a, b, c and d below. If a degradation assessment indicates the potential for a type of degradation to occur at a location not previously inspected with a technique capable of detecting this type of degradation at this location and that may satisfy the applicable tube plugging criteria, the minimum number of locations inspected with such a capable inspection technique during the remainder of the inspection period may be prorated. The fraction of locations to be inspected for this potential type of degradation at this location at the end of the inspection period shall be no less than the ratio of the number of times the SG is scheduled to be inspected in the inspection period after the determination that a new form of degradation could potentially be occurring at this location divided by the total number of times the SG is scheduled to be inspected in the inspection

(continued)