



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

May 30, 2018

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT – REVIEW OF SPRING 2017  
STEAM GENERATOR TUBE INSPECTION REPORT FOR REFUELING  
OUTAGE 39 (EPID L-2017-LRO-0029)

Dear Mr. Hanson:

By letter dated September 26, 2017 (Agencywide Documents Access and Management System Accession No. ML17276A348), Exelon Generation Company, LLC (the licensee) submitted information to the U.S. Nuclear Regulatory Commission (NRC) summarizing the results of the steam generator inspections performed at R. E. Ginna Nuclear Power Plant (Ginna). These inspections were performed during spring 2017 for refueling outage 39.

The NRC staff has completed its review of the submittal and concludes that the licensee provided the information required by Ginna's technical specifications. No additional follow-up is required at this time. The results of the NRC staff's review and observations are enclosed.

If you have any questions, please contact me at 301-415-2597 or via e-mail at [v.sreenivas@nrc.gov](mailto:v.sreenivas@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "V. Sreenivas", with a long horizontal flourish extending to the right.

V. Sreenivas, Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosure:  
Review of the Steam Generator  
Tube Inspection Report

cc: ListServ

REVIEW OF SPRING 2017 STEAM GENERATOR TUBE INSPECTION REPORT

EXELON GENERATION COMPANY, LLC

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

By letter dated September 26, 2017 (Agencywide Documents Access and Management System Accession No. ML17276A348), Exelon Generation Company, LLC (the licensee) submitted information to the U.S. Nuclear Regulatory Commission (NRC) summarizing the results of the steam generator (SG) tube inspections performed at R. E. Ginna Nuclear Power Plant (Ginna). These inspections were performed during spring 2017 for refueling outage 39.

Ginna has two SGs designed and fabricated by Babcock and Wilcox International (BWXT). Each SG contains 4,765 thermally treated Alloy 690 tubes. Each tube has a nominal outside diameter of 0.750 inches and a nominal wall thickness of 0.043 inches. The tubes were hydraulically expanded at both ends for the full length of the tubesheet and are supported by a number of Type 410 stainless steel lattice grid supports.

The licensee provided the scope, extent, methods, and results of its SG tube inspections in the document referenced above. In addition, the licensee described corrective actions (e.g., tube plugging) taken in response to the inspection findings.

Based on its review of the report submitted, the NRC staff has the following observations and comments:

- Denting of tubes at the top of the tubesheet (on the cold-leg side of both SGs) was first identified in 2008. After reporting additional denting in 2011, the licensee reported in 2014 that progression of the denting phenomenon appeared to have stopped. A comparison of the 2014 and 2017 inspection results indicates that there continues to be no active denting.
- The licensee reported that both visual and laser profilometry inspections were performed on all 85 secondary separator base plates in both SGs, to assess degradation caused by flow-accelerated corrosion that was reported during the 2014 inspections. The majority of the plates showed minor (less than 30 percent through-wall) or moderate (from 30-50 percent through-wall) degradation. The most significant degradation was 51 percent through-wall, and was in only one plate. The licensee reported that these results are consistent with the results from other utilities with BWXT SGs.

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by its technical specifications. In addition, the staff concludes there are no technical issues that warrant follow-up action at this time, since the inspections appear to be consistent with the objective of detecting potential tube degradation, and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

Enclosure

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT – REVIEW OF SPRING 2017  
STEAM GENERATOR TUBE INSPECTION REPORT FOR REFUELING  
OUTAGE 39 (EPID L-2017-LRO-0029) DATED MAY 30, 2018

**DISTRIBUTION:**

PUBLIC

RidsACRS\_MailCTR Resource

RidsNrrDmlrMccb Resource

RidsNrrDorlLpl1 Resource

RidsNrrLAJBurkhardt Resource

RidsNrrLALRonewicz Resource

RidsNrrPMGinna Resource

RidsRgn1MailCenter Resource

PKlein, NRR

AJohnson, NRR

AHuynh, NRR

**ADAMS Accession No.: ML18137A115**

\*by memorandum dated

OFFICE	NRR/DORL/LPL1/PM	NRR/DORL/LPL1/LA	NRR/DMLR/MCCB*	NRR/DORL/LPL1/BC	NRR/DORL/LPL1/PM
NAME	VSreenivas	LRonewicz (JBurkhardt for)	SBloom	JDanna	VSreenivas
DATE	5/16/18	5/22/18	5/2/18	5/29/18	5/30/18

**OFFICIAL RECORD COPY**