



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

January 15, 2015

Mr. Randall K. Edington
Executive Vice President Nuclear/
Chief Nuclear Officer
Mail Station 7602
Arizona Public Service Company
P.O. Box 52034
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNIT 3 – REVIEW OF
RESULTS OF FALL 2013 STEAM GENERATOR TUBE INSERVICE
INSPECTIONS PERFORMED DURING REFUELING OUTAGE 17 (TAC NO.
MF4162)

Dear Mr. Edington:

By letter dated May 16, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14141A025), Arizona Public Service Company (the licensee) submitted information to the U.S. Nuclear Regulatory Commission (NRC) summarizing the results of the fall 2013 steam generator tube inspections performed during the 17th refueling outage at Palo Verde Nuclear Generating Station, Unit 3. In addition to this report, the NRC staff summarized a conference call held with the licensee concerning the 2013 steam generator tube inspections, in a letter dated December 5, 2013 (ADAMS Accession No. ML13333B574).

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

If you have any questions, please contact me at (301) 415-3016 or via e-mail at Balwant.Singal@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Balwant K. Singal".

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. STN 50-530

Enclosure:
As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
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OFFICE OF NUCLEAR REACTOR REGULATION

STAFF REVIEW OF RESULTS OF FALL 2013 STEAM GENERATOR TUBE
INSERVICE INSPECTIONS PERFORMED DURING REFUELING OUTAGE 17

ARIZONA PUBLIC SERVICE COMPANY

PALO VERDE NUCLEAR GENERATING STATION, UNIT 3

DOCKET NO. STN 50-530

By letter dated May 16, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14141A025), Arizona Public Service Company (the licensee) submitted information to the U.S. Nuclear Regulatory Commission (NRC) summarizing the results of the fall 2013 steam generator (SG) tube inspections performed during the 17th refueling outage (RFO) at Palo Verde Nuclear Generating Station (PVNGS), Unit 3. In addition to this report, the staff summarized a conference call held with the licensee concerning the 2013 SG tube inspections, in a letter dated December 5, 2013 (ADAMS Accession No. ML13333B574).

PVNGS, Unit 3 has two replacement SGs manufactured by Ansaldo. Each SG has 12,580 thermally treated Alloy 690 tubes with an outside diameter of 0.75 inches and a wall thickness of 0.042 inches. Ferritic stainless steel eggcrate tube supports, diagonal bars, and vertical straps support the tubes at various locations.

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

After reviewing the information provided by the licensee, the NRC staff has the following observation:

- No SG tube inspections were planned for RFO 17. Several loose parts were discovered in a high-pressure feedwater heater. The discovery of these loose parts led to a foreign object search and retrieval (FOSAR) performed in both SG 31 and SG 32. Visual evidence of foreign object wear was found in SG 31 during the FOSAR, which prompted the SG tube inspections in SG 31. The scope of the SG activities included FOSAR in SG 31 and SG 32 and a limited number of SG tube inspections in SG 31.

No additional tubes were plugged in SG 31 during RFO 17.

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by the PVNGS, Unit 3 Technical Specifications. In addition, the staff concludes that 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 inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

January 15, 2015

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SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNIT 3 – REVIEW OF RESULTS OF FALL 2013 STEAM GENERATOR TUBE INSERVICE INSPECTIONS PERFORMED DURING REFUELING OUTAGE 17 (TAC NO. MF4162)

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Sincerely,

/RA/

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. STN 50-530

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As stated

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ADAMS Accession No. ML15005A068

*by memo dated 12/17/14

**by email dated 1/12/15

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