

## NRR-PMDAPEm Resource

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**From:** Gibson, Lauren  
**Sent:** Friday, March 18, 2011 1:28 PM  
**To:** Russell.Stroud@aps.com  
**Cc:** Hall, Randy; Lent, Susan; Burkhardt, Janet  
**Subject:** Draft Request for Additional Information - Palo Verde Nuclear Generating Station, Unit 1, Steam Generator Tube Inspection Report (TAC No. ME5009)  
**Attachments:** DRAFT REQUEST FOR ADDITIONAL INFORMATION ME50009.pdf

March 18, 2011

Mr. Russell A. (Rusty) Stroud  
Licensing Section Leader  
Regulatory Affairs  
Palo Verde Nuclear Generating Station  
Arizona Public Service Company

Rusty,

By letter dated November 08, 2010 (Agencywide Documents Access and Management Systems (ADAMS) Accession No. ML103210208), Arizona Public Service Company (APS, the licensee), submitted information summarizing the results of the 2010 steam generator (SG) tube inspections at Palo Verde Nuclear Generating Plant Unit 1.

The NRC staff has reviewed the information provided by APS and determined that the additional information requested in the attachment to this e-mail message is needed to complete its review of the SG tube inspections. In order to complete our review of the LAR in a timely manner, please submit your response to the attached RAI by April 19, 2011. Please contact me if APS would like to have a conference call to discuss this request for additional information.

Sincerely,

Lauren Gibson, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation  
USNRC  
(301) 415-1056  
[Randy.Hall@nrc.gov](mailto:Randy.Hall@nrc.gov)

**Hearing Identifier:** NRR\_PMDA  
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**Mail Envelope Properties** (Lauren.Gibson@nrc.gov20110318132800)

**Subject:** Draft Request for Additional Information - Palo Verde Nuclear Generating Station, Unit 1, Steam Generator Tube Inspection Report (TAC No. ME5009)  
**Sent Date:** 3/18/2011 1:28:21 PM  
**Received Date:** 3/18/2011 1:28:00 PM  
**From:** Gibson, Lauren

**Created By:** Lauren.Gibson@nrc.gov

**Recipients:**

"Hall, Randy" <Randy.Hall@nrc.gov>  
Tracking Status: None  
"Lent, Susan" <Susan.Lent@nrc.gov>  
Tracking Status: None  
"Burkhardt, Janet" <Janet.Burkhardt@nrc.gov>  
Tracking Status: None  
"Russell.Stroud@aps.com" <Russell.Stroud@aps.com>  
Tracking Status: None

**Post Office:**

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>	
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**Options**

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**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

DRAFT REQUEST FOR ADDITIONAL INFORMATION

2010 STEAM GENERATOR TUBE INSPECTIONS

PALO VERDE NUCLEAR GENERATING STATION UNIT 1

DOCKET NUMBER 50-528

By letter dated November 08, 2010 (Agencywide Documents Access and Management Systems (ADAMS) Accession No. ML103210208), Arizona Public Service Company (APS, the licensee), submitted information summarizing the results of the 2010 steam generator (SG) tube inspections at Palo Verde Nuclear Generating Plant Unit 1.

In order to complete the review, the staff requests the following information:

1. APS indicated that the scope of the foreign objects search and retrieval (FOSAR) effort included an inspection of the blowdown patch plate welds and that the inspections confirmed that all four patch plates (two per SG) were cracked similar to what was found in the Unit 2 SGs. Additionally, APS stated that the patch plate to lug weld was completely compromised and the patch plate to divider plate welds were completely intact. Please provide a description of the blowdown plate assembly, as well as a more complete description of the cracking found in the blowdown patch plate welds. Please summarize the basis of the conclusion that the cracking will not affect the functionality of the blowdown patch plates and that the probability of loose parts being formed is remote. Please describe any long term follow up actions planned to confirm the conclusions.
2. FOSAR identified two small indications on tubes above the hot leg top of tubesheet. Rotating probe examination identified a third tube with an indication. Please discuss the cause of these three indications (presumably the three tubes identified in Table 2 as volumetric indications). If attributed to a loose part, discuss whether the part was identified and removed. If not identified, please discuss the extent of the rotating probe examinations near these tubes.
3. You indicated that this examination was considered a 100% full length tubing inspection. In reviewing Table 1, it does not appear that the bend region (or horizontal run region) of approximately 900 tubes in each steam generator were inspected. Please clarify.
4. Besides the FOSAR, please discuss whether any other secondary side inspections were performed. If inspections were performed, please discuss the scope and results.
5. In reviewing the list of tubes that were plugged, the most severe indications do not always appear to have been plugged. Please briefly describe the basis for choosing the tubes that were plugged (e.g., high growth rates, etc.).