

## **NRR-PMDAPEm Resource**

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**From:** Lingam, Siva  
**Sent:** Wednesday, April 13, 2016 2:59 PM  
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**Subject:** Palo Verde Nuclear Generating Station, Unit 3 - Requests for Additional Information for Relief Request 54, Alternative to Flaw Removal (CAC No. MF6806)

By letter dated October 22, 2015 (Agencywide Documents Access and Management System Accession Package No. ML15300A218), Arizona Public Service Company (the licensee) requested the U.S. Nuclear Regulatory Commission (NRC) to authorize relief from Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components, of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for the specific repair/replacement activity identified in Relief Request (RR) 54 for Palo Verde Nuclear Generating Station (Palo Verde), Unit 3. Relief Request 54, provides an alternative repair method for the reactor coolant pump (RCP) 2A instrument nozzle repair requirements for flaw removal and successive examinations required by ASME Code, Section XI.

To complete its review, the NRC staff requests the following official additional information within 45 days from the date of this e-mail (as agreed during the clarification call on April 12, 2016). Your timely responses will allow the NRC staff to complete its review on schedule.

1. The enclosure to the licensee's submittal dated October 22, 2015 included WCAP-18051-NP, Revision 0, "Palo Verde Nuclear Generation station Unit 3 Reactor Coolant Pump 2A Suction Safe End Instrument Nozzle Half-Nozzle Repair Evaluation" to support its proposed alternative. Page 1-1 of WCAP-18051-NP states that the purpose of this report is to demonstrate the acceptability of the half-nozzle repair for the flawed reactor coolant pump suction safe end instrument nozzle at Palo Verde, Unit 3 based on assessments detailed in the report. One of the assessments listed is a stress corrosion cracking assessment. However, the report does not address stress corrosion cracking of the carbon steel safe end. Please provide a stress corrosion cracking assessment including a discussion on past plant reactor coolant chemistry and future expected plant chemistry.
2. Section 5 of WCAP-18051-NP describes the Loose Parts Evaluation that was performed to support RR 54. While Section 5 describes the evaluation and the results of the evaluation, it does not provide a reference to the document that contains the actual loose parts evaluation. In support of RR 53, the licensee submitted TR-FSE-15-2, Revision 1, "Palo Verde Nuclear Generation Station Unit 3 Evaluation of Potential Loose Part – Reactor Coolant Pump Instrument Nozzle Weld Fragment." The NRC staff notes that this document has not been referenced as part of RR 54. In addition, the evaluation in TR-FSE-15-2, Revision 1 only addresses the current 18 month operating cycle. Please provide the loose parts evaluation described in Section 5 of WCAP-18051.

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