



Palo Verde Nuclear  
Generating Station

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**10 CFR 50.12**  
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102-04617-CDM/SAB/TNW  
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U.S. Nuclear Regulatory Commission  
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Washington, DC 20555-0001

- Reference:
- 1) Letter 102-04540-CDM/SAB/JAP, dated March 2, 2001, "Lead Fuel Assembly – Exemption Request Extension," from D. Mauldin, APS to USNRC
  - 2) Letter 102-04600-CDM/TNW/JAP, dated August 28, 2001, "Additional Information for Lead Fuel Assembly – Exemption Request Extension," from D. Mauldin, APS to USNRC
  - 3) Letter 102-04611-CDM/TNW/JAP, dated September 25, 2001, "Lead Fuel Assembly – Inspection Results," from D. Mauldin, APS to USNRC
  - 4) NRC Letter dated October 16, 2001, "Exemption from the Requirements of 10 CFR 50.44, 50.46 and Part 50, Appendix K – Palo Verde Nuclear Generating Station, Unit 3" from L. Raynard Wharton, USNRC, to G. R. Overbeck, APS

**Subject: Palo Verde Nuclear Generating Station (PVNGS)  
Unit 3  
Docket No. STN 50-530  
Lead Fuel Assembly Exemption Request Clarification**

In Reference 1, Arizona Public Service Company (APS) requested an exemption from the requirements of 10 CFR 50.44, 10 CFR 50.46 and 10 CFR 50, Appendix K, for PVNGS Unit 3. This exemption would allow continued testing of a Lead Fuel Assembly (LFA) containing fuel rods fabricated with an advanced zirconium based cladding material.

In References 2 and 3, APS provided responses to NRC questions and additional information regarding the exemption. The approval of the exemption was provided by the NRC in Reference 4.

Reference 1 stated that poolside examinations would be performed on the LFA during the PVNGS Unit 3 ninth refueling outage (U3R9). It stated that "the rods are typically examined for oxide thickness, axial fuel rod growth and/or shoulder gap, ovality, and cladding diameters over the length of the rods." It described the typical set of examinations that are in the test program for the LFA, but it was not intended to limit the type of examinations nor to specify the minimum examinations required.

ACD  
David  
01/14/02

Upon receipt of the approval of the exemption request on October 16, 2001, APS noted that the NRC described the examinations in a different manner. It stated that "The poolside examinations to be performed include: oxide thickness, axial fuel rod growth and/or shoulder gap, ovality, and cladding diameters over the length of the rods." This wording could be read to require this set of measurements to be taken during the poolside examinations when it was not our intent to specify a required set of measurements.

In a telephone call on Thursday, October 18, 2001, members of APS and Westinghouse contacted Mr. J. S. Wermiel, NRC, to discuss the poolside examinations. Mr. Wermiel provided the clarification that the approval of the exemption was not intended to limit the type of inspections nor to specify the minimum examinations required. It was intended to describe the typical examinations performed to verify the characteristics of the LFA and to determine if the LFA is acceptable to be re-inserted into the PVNGS core for cycle 10 (U3C10).

The inspections have now been completed by Westinghouse. The examinations performed were oxide thickness measurements and shoulder gap measurements. Visual inspections to evaluate the surface conditions and eddy current inspections to look for defects were also performed. The results of the examinations indicate that the LFA has demonstrated acceptable performance after three cycles of irradiation and the LFA is acceptable for re-insertion into the core and continued irradiation in PVNGS U3C10. The results of the poolside examinations will be sent to the NRC after completion of the test program as stated in Reference 4.

Your concurrence to the verbal clarification provided by Mr. Wermiel is requested.

No commitments are being made to the NRC by this letter.

Should you have any questions, please contact Thomas N. Weber at (623) 393- 5764.

Sincerely,

A handwritten signature in black ink, appearing to read "David Pauldin". The signature is fluid and cursive, with the first name "David" and last name "Pauldin" clearly distinguishable.

CDM/SAB/TNW/kg

cc: E. W. Merschoff  
L. R. Wharton  
J. H. Moorman  
J. S. Wermiel