

April 27, 2001

Mr. Gregg R. Overbeck  
Senior Vice President, Nuclear  
Arizona Public Service Company  
P. O. Box 52034  
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 -  
REGARDING REACTOR VESSEL MATERIAL SURVEILLANCE CAPSULE  
REPORTS (TAC NO. MB0396)

Dear Mr. Overbeck:

By letters dated October 20, 2000, April 15, 1994, and April 26, 1995, the reactor vessel material capsule reports were submitted to the Nuclear Regulatory Commission (NRC) for Palo Verde Nuclear Generating Station, Units 1, 2, and 3, respectively. This is a reporting requirement of Appendix H to 10 CFR Part 50. Each of these letters submitted a report on the results of the analysis of the surveillance capsule removed from the reactor vessel in accordance with the reactor vessel material surveillance program, which monitors the effects of neutron irradiation on the reactor vessel materials. The surveillance program is also a requirement of Appendix H.

The letters submitted WCAP-15589, "Analysis of Capsule 38° From the ... Unit 1 Reactor Vessel Radiation Surveillance Program," dated October 2000; WCAP-13935, "Analysis of Capsule 137° From the ... Unit No. 2 Reactor Vessel Radiation Surveillance Program," dated February 1994; and WCAP-14208, "Analysis of Capsule No. 4 From the ... Unit No. 3 Reactor Vessel Radiation Surveillance Program," dated January 1995.

Based on the NRC staff's review of the three WCAPs listed above, it appears that the FERRET Code was used to adjust the measured neutron fluence from the analysis of the material surveillance capsules. Because the NRC staff has not reviewed and approved the FERRET Code for this use, the NRC staff believes that the reported fluence values for the units could be underestimated and the reported fluence value for Unit 1 could be underestimated by as much as 17 percent. The information in the WCAPs for Units 2 and 3 was not enough for the NRC staff to provide an estimate for these units; however, the staff assumes that the 17 percent underestimation also applies to Units 2 and 3. Because of this uncertainty in the adjusted measured neutron fluence values, you are requested to provide (1) neutron fluence values for the three units based on the capsule reports using an adjustment code that has been approved for this use by the NRC staff, (2) a justification of the use of the FERRET Code for adjusting the measured neutron fluence from the material surveillance capsules without underestimating the neutron fluence, or (3) update the pressure/temperature (P/T) limits for the three units to account for the 17 percent underestimation of the neutron fluence values.

G. Overbeck

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Because the current P/T limits for the three units are 32 effective full power years (EFPY) and the 17 percent underestimation would not reduce the EFPY to within the next operating cycle of Unit 1, you are requested to submit your response to our request within one year of the receipt of this letter.

If there is any questions concerning this letter, please contact me at 301-415-1307, or through the Internet at [jnd@nrc.gov](mailto:jnd@nrc.gov).

Sincerely,

*/RA/*

Jack N. Donohew, Senior Project Manager, Section 2  
Project Directorate IV & Decommissioning  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529,  
and STN 50-530

cc: See next page

Unit 1, you are requested to submit your response to our request within one year of the receipt of this letter.

If there is any questions concerning this letter, please contact me at 301-415-1307, or through the Internet at [jnd@nrc.gov](mailto:jnd@nrc.gov).

Sincerely,

*/RA/*

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