

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9410270092 DOC. DATE: 94/10/12 NOTARIZED: NO DOCKET #
 FACIL: STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
 AUTH. NAME AUTHOR AFFILIATION
 LEVINE, J.M. Arizona Public Service Co. (formerly Arizona Nuclear Power
 RECIP. NAME RECIPIENT AFFILIATION
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SUBJECT: Informs that during recent Unit 3 Cycle 5 reload, new fuel assemblies installed under provisions of 10CFR50.59.

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 TITLE: Startup Report/Refueling Report (per Tech Specs)

NOTES: Standardized plant.

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JAMES M. LEVINE
VICE PRESIDENT
NUCLEAR PRODUCTION

102-03153-JML/AKK/RKR

October 12, 1994

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-37
Washington DC 20555

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 3
Docket No. STN 50-530
Unit 3 Cycle 5 Startup Report
File: 94-160-419**

During the recent Unit 3 Cycle 5 reload, new fuel assemblies were installed under the provisions of 10 CFR 50.59. Several changes were made to the fuel design for the new fuel assemblies. Unit 3 Cycle 5 startup test results show that the nuclear, thermal, and hydraulic performance of the plant has not been altered by the use of the new fuel assemblies. The following changes were made to the Unit 3 Cycle 5 new fuel assemblies:

- Erbium is used as a burnable absorber, which is integral to the fuel pellets. The previous burnable absorber was B4C which was in discrete pins.
- The fuel pellet was changed as follows:
 - Increased outside diameter (from 0.3250" to 0.3255")
 - Reduced chamfer height (from 0.0065" to 0.0043")
 - Reduced the dish volume by about 60%
 - Increased the pellet stack density from 10.11 gms/cc to 10.31 gms/cc
- The GUARDIAN™ lower spacer grid replaced the standard Inconel lower spacer grid assembly to minimize potential debris-related damage to the rods.
- A laser welded Zircaloy spacer grid assembly, HID-1L, replaced the HID-1B TIG welded spacer grid assembly. A smaller, more uniform weld nugget reduced the grid pressure drop coefficients.

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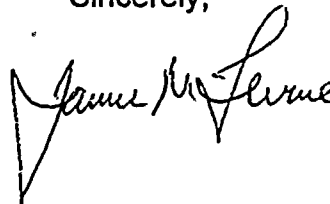
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Unit 3 Cycle 5 Startup Report
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- The flange of the outer guide tube assembly was modified to have four 0.188 inch diameter holes instead of two 0.25 inch diameter holes.
- The plenum length was reduced from 9.527 to 8.188 inches due to the longer lower end caps. Because of this, the plenum spring was shortened and contains less material volume, increasing internal fuel rod volume.
- The upper alumina spacer disk was eliminated to increase internal fuel rod volume.

PVNGS Unit 3 Technical Specification 6.9.1.1 requires that a startup report be submitted to the Regional Administrator following installation of fuel that has a different design. In accordance with this Technical Specification, the Unit 3 Cycle 5 startup report is enclosed.

Should you have any questions, please contact Scott A. Bauer at (602) 393-5978.

Sincerely,



JML/AKK/RKR/rv
Enclosure

cc: B. E. Holian
L. J. Callan
K. E. Perkins
K. E. Johnston

