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 FACIL: STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Public 05000528
 AUTH. NAME: AUTHOR AFFILIATION
 VAN BRUNT, E.E. Arizona Nuclear Power Project (formerly Arizona Public Serv
 RECIP. NAME: RECIPIENT AFFILIATION
 DENTON, H. Office of Nuclear Reactor Regulation, Director (pre-851125)

SUBJECT: Provides updated & addl info re 851113 request for partial
 scheduler exemption to GDC 4. Partial exemption requested for
 period ending w/completion of second refueling outage or
 adoption of proposed rulemaking for mod of GDC4.

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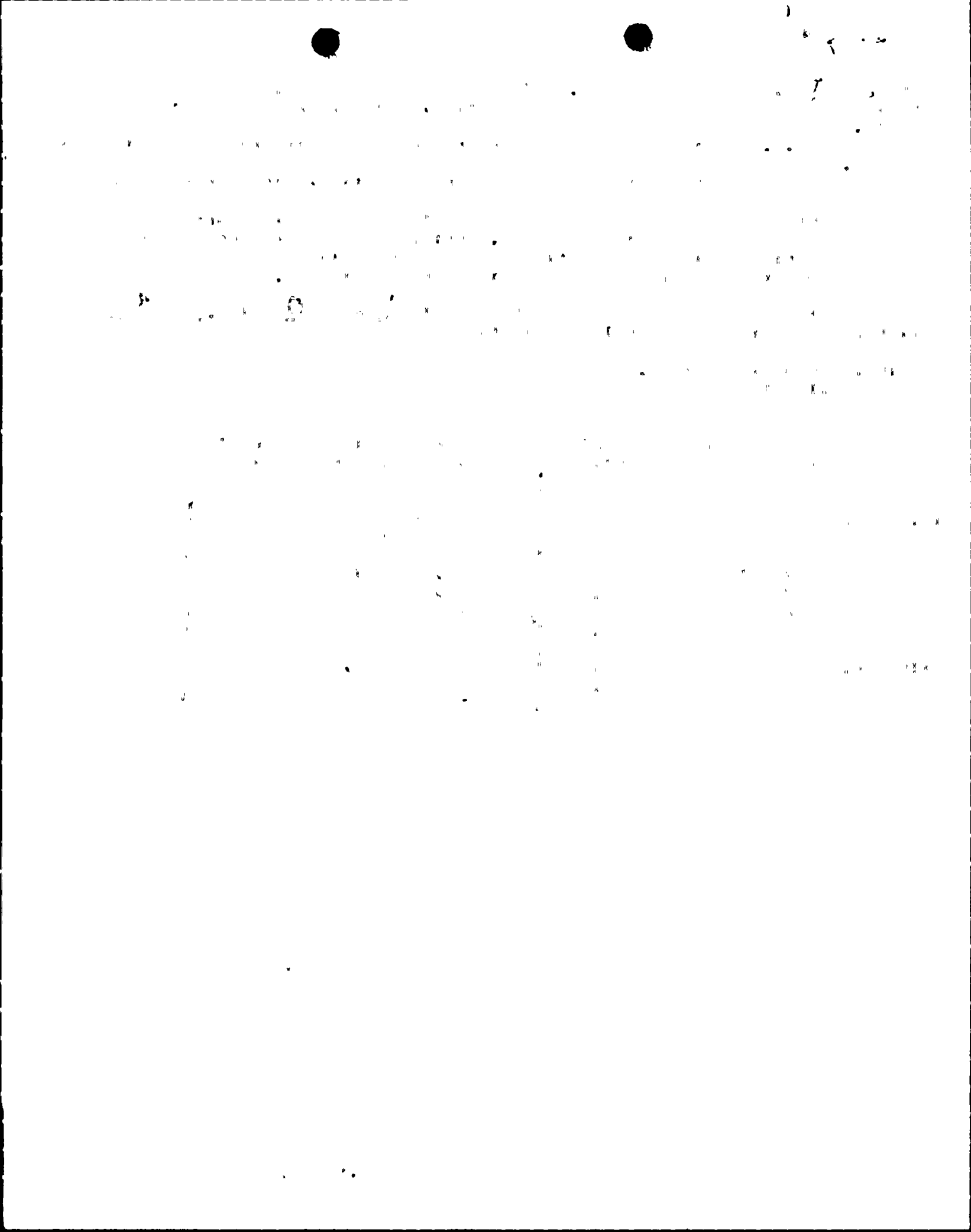
NOTES: Standardized plant,
 OL: 12/31/84

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	NRR/ORAS	1	0	REG FILE 04	1	1	
	RGN5	1	1				
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APP 2

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Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

Mr. Harold Denton
Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington D.C. 20555

November 15, 1985
ANPP-34020-EEVB/WFQ/PGN

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 1
Docket No. STN-50-528 (License NPF-41)
Update to Request for Partial Scheduling
Exemption to GDC 4
File: 85-056-026; G.1.01.10

- References:
- (A) Letter from E. E. Van Brunt, Jr. (APS), to H. Denton (NRC) dated November 13, 1985 (ANPP-33985)
 - (B) Letter from E. E. Van Brunt, Jr. (APS), to G. W. Knighton (NRC) dated June 7, 1984 (ANPP-29684)
 - (C) Letter from E. E. Van Brunt, Jr. (APS), to G. W. Knighton (NRC) dated December 10, 1984 (ANPP-31417)
 - (D) NRR Report "Safety Evaluation Report on the Elimination of Large Primary Loop Responses as a Design Basis", dated October 11, 1984, Docket No. STN-50-470

Dear Mr. Denton:

Reference (A) requested and provided justification for a partial scheduling exemption to General Design Criterion (GDC) 4. This letter provides updated and additional information relative to the request.

On November 8, 1985, APS was notified by Bechtel of a deficiency in the Unit 1 Reactor Coolant System (RCS) pipe whip restraints. Corrective action was initiated immediately. As currently installed, the bolts in some of the restraints were not properly tensioned, or of the correct material, such that some of the pipe whip restraints may not be able to perform their intended function in the event of a pipe break. Under those circumstances, PVNGS Unit 1 does not meet the requirement of GDC 4 for protection of structures, systems, and components against certain dynamic effects associated with postulated RCS main loop pipe breaks. As a result, PVNGS Unit 1 cannot return to power until bolts of suitable material in the pipe whip restraints are properly tensioned.

As provided by 10CFR50.12(a), Arizona Public Service Company requests for PVNGS Unit 1 a partial exemption from the provisions of GDC 4, as requested and justified for PVNGS Units 2 and 3 in Reference (B), for a period ending with the completion of the second refueling outage, or the adoption of the proposed rulemaking for modification of GDC 4, whichever occurs first.

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The justification for this partial scheduler exemption that was presented in Reference (B) included a radiation exposure reduction to plant maintenance personnel of 560 man-rem per unit. This assumes that each restraint is removed once for Inservice Inspection (ISI). The personnel radiation exposure estimates for the current work that needs to be performed is 3 man-rem/day. This estimate is higher than the estimate of 10 man-rem over an 18 day period which was previously reported in Reference (A). This is due to increased dose rates once the insulation is removed from the stops, and a crew size increase from 2 to 5 people for the D stops, which are located inside the primary shield wall. The estimate is based on actual dosimetry readings from the personnel working on the stops.

The cost benefit of this exemption is \$30,000/day for labor and engineering. Assuming the exemption is granted on November 22, 1985, a cost savings of \$240,000 and a radiation exposure reduction to personnel of 24 man-rem would be realized.

In addition, each day of delay in resuming power operation, if the requested scheduler exemption is not granted, represents a significant loss of power generation and increase in generating costs.

The incurrence of such costs and effects is not justified in light of the studies which show that pipe whip restraints are not necessary for safe operation. Reference (D) is the NRR staff evaluation of the C-E report entitled, "Basis for Design of Plant Without Pipe Whip Restraints", which provided the technical basis for eliminating large ruptures of the RCP as a design basis for C-E System-80 plants. To re-emphasize, the NRR report states:

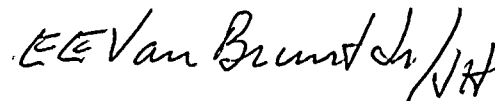
"The staff concludes that the probability or likelihood of large pipe breaks occurring in the primary coolant system loop of a CESSAR facility is sufficiently low such that protective devices associated with postulated pipe breaks in the CESSAR primary coolant system need not be installed."

The C-E analysis was performed using the PVNGS design, which assures that the as-built design for PVNGS Unit 1 agrees with the design described in the C-E analysis. This analysis is discussed in detail in Reference (C).

Mr. Harold Denton
Director of Reactor Regulation
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Schedular Exemption to GDC 4
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If you have any questions or require additional information, please contact
Mr. W. F. Quinn of my staff.

Very truly yours,

A handwritten signature in dark ink, appearing to read "EE Van Brunt Jr." followed by a stylized flourish or initials.

E. E. Van Brunt, Jr.
Executive Vice President
Project Director

EEVB/WFQ/PGN/dlm

cc: G. W. Knighton
E. A. Licitra
R. P. Zimmerman
A. C. Gehr

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