

REGULATOR INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8511210352 DOC. DATE: 85/11/15 NOTARIZED: NO DOCKET #  
 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  
 KNIGHTON, G. W. Office of Nuclear Reactor Regulation, Director

SUBJECT: Application for emergency amend to License NPF-41, allowing  
 return to power operation w/o performing extensive work on  
 RCS pipe whip restraints once exemption from GDC 4 granted.  
 Fee paid.

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NOTES: Standardized plant.  
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	NRR/DL/TSRG		1	1	NRR/DSI/METB		1 1
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	RGNS		1	1			
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	LPDR	03	1	1	NRC PDR	02	1 1
	NSIC	05	1	1			

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## Arizona Nuclear Power Project

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

November 15, 1985  
ANPP-34021-EEVB/WFQ/PGN

Director of Nuclear Reactor Regulation  
Attention: Mr. George W. Knighton, Project Director  
PWR Project Directorate #7  
Division of Pressurized Water Reactor Licensing-B  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

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

Reference: (1) Letter from E. E. Van Brunt, Jr., (APS) to  
H. Denton (NRC), dated November 13, 1985, (ANPP-33985),  
Subject: Request for Partial Scheduling Exemption to  
GDC 4  
(2) Letter from E. E. Van Brunt, Jr., (APS) to H. Denton (NRC),  
dated November 15, 1985, (ANPP-34020). Subject: Update to  
Request for Partial Scheduling Exemption to GDC 4

Dear Mr. Knighton:

On November 8, 1985, APS was notified by Bechtel of a deficiency in the Unit 1 Reactor Coolant System (RCS) pipe whip restraints. The staff was notified of this deficiency on November 9, 1985 and a conference call between the NRC and APS was held on November 11, 1985 to further discuss the extent and nature of the deficiency. References (1) and (2) transmitted our request for a partial scheduling exemption to GDC 4 from the requirement for protection of structures, systems, and components against certain dynamic effects associated with postulated RCS main loop pipe breaks.

This letter is a formal request for an emergency amendment pursuant to 10CFR50.91, to the PVNGS Unit 1 Operating License (NPF-41), License Condition 2.D, to allow PVNGS Unit 1 to return to power operation once the exemption is granted, without having to perform extensive work on the RCS pipe whip restraints. If the exemption is granted, the RCS pipe whip restraints will not be removed and PVNGS Unit 1 will return to 80% power to perform the remaining testing at the plateau. After this testing is completed, PVNGS Unit 1 will ascend to 100% power to complete the testing program. This is an emergency situation, since without the exemption and the Operating License Amendment, Unit 1 will not be able to return to power for an estimated period of two weeks. As noted above, APS has acted in an expeditious manner to remedy this situation.

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Mr. G. W. Knighton, Project Director  
Emergency Operating License Amendment  
Request for Partial Exemption to General  
Design Criterion (GDC) 4  
ANPP-24021  
Page Two

Work has already begun to correct the deficiency with the RCS pipe whip restraints. Once the exemption is granted this work will cease, immediate steps will be taken to insure that PVNGS Unit 1 is in a safe configuration, and the Unit will be restarted so that power ascension testing can continue. Leaving the RCS pipe whip restraints in place in their current configuration will not jeopardize the safe operation of the plant.

Enclosed with this emergency amendment request package are the following:

- A. Description of the Proposed Change
- B. Marked-up Operating License
- C. Safety Evaluation for the Proposed Change
- D. Significant Hazards Consideration Determination
- E. Proposed Compensatory Measures
- F. Environmental Impact Consideration Determination

In accordance with the requirements of 10 CFR 170.12(c), the license amendment application fee of \$150.00 is also enclosed.

If you have any questions or require additional information, please contact Mr. W. F. Quinn of my staff.

Very truly yours,



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

EEVB/WFQ/PGN/jle  
Attachments

cc: E. A. Licitra (all w/a)  
M. L. Ley  
R. P. Zimmerman  
A. C. Gehr  
C. F. Tedford



## Attachment

### Description of Proposed Change

Due to recently identified deficiencies in the Reactor Coolant System (RCS) pipe whip restraints, PVNGS does not meet the requirements of General Design Criterion (GDC) 4 "Environmental and Missile Design Bases," which requires protection of structures, systems, and components against certain dynamic effects associated with postulated RCS main loop pipe breaks. A request for partial schedular exemption to GDC 4 was submitted on November 13, 1985 based on the NRC conclusion 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 details of this evaluation and further justification were provided in the previous submittal of November 13, 1985 (ANPP-33985) and its references. Therefore, an emergency amendment to the Operating License is requested once the exemption is granted, to modify License Condition 2.D to reflect the exemption and allow PVNGS to return to power without having to perform extensive work on the RCS pipe whip restraints. The revised page of facility Operating License NPF-41 is attached for your review.

### Safety Evaluation for the Proposed Change

This proposed Operating License amendment will not increase the probability of occurrence or consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR, nor will the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR be created. An NRC safety evaluation, which is attached to a letter from C. O. Thomas, NRC, to A. E. Scherer, C-E, dated October 11, 1984, of the technical bases for eliminating large ruptures of the RCP as a design basis for C-E System-80 plants 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 the postulated pipe breaks in the CESSAR





primary coolant system need not be installed. The RCS pipe whip restraints will not be removed at this time; however, leaving them in place in their current configuration will not jeopardize the safe operation of the plant.

The RCS pipe whip restraints are not discussed in the Technical Specifications. Therefore, the margin of safety as defined in the basis for the Technical Specifications is not reduced.

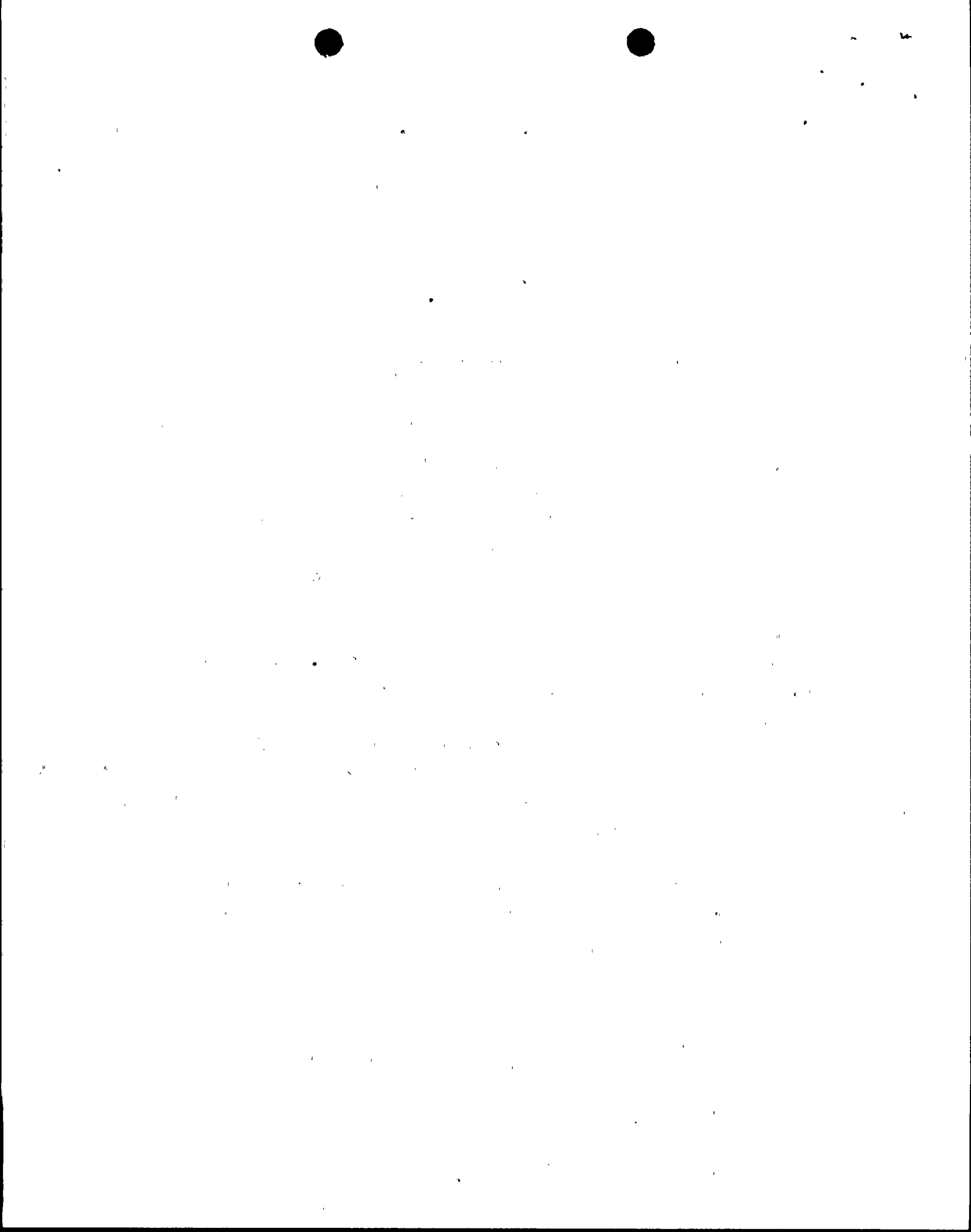
#### Significant Hazards Consideration Determination

The proposed amendment request does not involve a Significant Hazards Consideration because it does not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or
2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or
3. Involve a significant reduction in a margin of safety; and

These conclusions are based on the advanced fracture mechanics analysis which was provided to the NRC staff by letters from A. E. Scherer, CE, to D. G. Eisenhut, NRC, dated June 14, 1983 and December 23, 1983 (Docket No. STN 50-470), provides assurance that flaws in primary system piping will be detected before they reach a size that could lead to unstable crack growth. Based on this analysis, further protection provided by RCS pipe whip restraints against the dynamic effects associated with postulated pipe ruptures is not necessary.

These conclusions are also consistent with: (i) the conclusion of the NRC staff previously cited that "protective devices associated with postulated pipe ruptures need not be installed", and (ii) the granting of the schedular exemption for PVNGS Unit 1.



Proposed Compensatory Measures

It has been shown 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 the postulated pipe breaks in the CESSAR primary coolant system need not be installed. Therefore, no compensatory measures will be taken to correct the current deficiencies of the RCS pipe whip restraints.

Environmental Impact Consideration Determination

This proposed Operating License amendment does not result in a change of effluent types or total amounts and does not result in an increase in power level. Therefore, this change will not have any significant environmental impact.



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