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 FACIL: STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Public 05000528  
 STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Public 05000529  
 STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Public 05000530  
 AUTH. NAME: AUTHOR AFFILIATION  
 VAN BRUNT, E. E. Arizona Public Service Co.  
 RECIP. NAME: RECIPIENT AFFILIATION  
 TEDESCO, R. L. Assistant Director for Licensing

SUBJECT: Advises that encl Questions 450.16 & 450.17 re. radiological consequence analysis transmitted w/810714 & 31 ltrs, respectively, are more appropriately addressed in CESSAR docket.

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August 26, 1981

ANPP-18761 - JMA/TFQ

Mr. R. L. Tedesco  
Assistant Director for Licensing  
Division of Licensing  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Palo Verde Nuclear Generating Station  
(PVNGS) Units 1, 2 and 3  
Docket Nos. STN-50-528/529/530  
File: 81-056-026; G.1.10



Ref.: (A) Letter from R. L. Tedesco, NRC, to E. E. Van Brunt, Jr.  
dated July 14, 1981, subject: Request for Additional  
Information - PVNGS - (AEB)  
(B) Letter from R. L. Tedesco, NRC, to E. E. Van Brunt, Jr.  
dated July 31, 1981, subject: Request for Additional  
Information - PVNGS - (AEB)

Dear Mr. Tedesco:

From our review of the referenced letters, we have determined that attached questions 450.16 and 450.17, transmitted through References (A) and (B), respectively, are more appropriately addressed on the CESSAR Docket (No. STN-50-470).

Please contact me if you have any questions, or if you do not agree with our above assessment.

Very truly yours,

E. E. Van Brunt, Jr.  
APS Vice President,  
Nuclear Projects  
ANPP Project Director

EEVBJr/TFQ/av  
Attachment

cc: J. Kerrigan (w/a)  
C. Grimes (w/a)  
P. Hourihan (w/a)  
A. C. Gehr (w/a)

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450.16  
50.16  
(15.6.3)

The radiological consequence evaluation provided in CESSAR Section 15.6.2 are based upon assumptions which vary greatly from previous staff practice in the following areas:

- 1) The evaluations were performed using values which are less than the proposed technical specification limits for normal operation.

This is not acceptable to the staff because the technical specifications define the operating envelope under which the plant can operate without restriction. Analyses using values less than the technical specifications do not verify that at the technical specification limits the plant would operate safely and that the radiological consequences would not exceed the staff acceptance criteria on radiological exposures.

- 2) The radiological consequence analysis of a steam generator tube rupture makes no mention of iodine spiking in the CESSAR document, and the Palo Verde docket uses a spiking factor of only 100.

The staff position on an acceptable spiking factor is provided in SRP Section 15.6.3. This section states that a spiking factor of 500 times the normal release rate of iodine from the fuel should be used.

- 3) The iodine transport in the steam generator is determined using CENPD-180 and its supplement.

The staff position on iodine transport in the steam generator is defined in SRP Section 15.6.3 and is that the iodine transport should be determined using the methods and models described in NUREG-0409. The CESSAR and Palo Verde dockets do not discuss the differences in the methods used to those proposed in NUREG-0409.

Based upon the above discussion, the staff position is that the applicant provide an analysis of the radiological consequences of the steam generator tube rupture which assumes operation at the proposed technical specification values and describes the differences between the models used and those presented in the staff Standard Review Plan.



450.0

ACCIDENT EVALUATION BRANCH

17  
50.16  
(SRP 15.6.2)

In the evaluation of the double-ended break of the letdown line outside containment-upstream of the letdown line control valve (CESSAR Section 15.6.5.2), the staff has calculated the dose in accordance with SRP 15.6.2. The result shows the EAB, 0-2 hr, thyroid dose to be 85 rems. This value is more than twice the acceptable limit of 30 rems as defined in SRP 15.6.2. The staff position is that the maximum equilibrium fission product concentration given in the technical specification be reduced from 4.7  $\mu\text{ci/cc}$  to the standard 1  $\mu\text{ci/cc}$ . This measure will correspondingly reduce the dose to within acceptable levels. State your intent regarding compliance with our position.

