MAR 16 1986

Docket No. 50-530

Mr. E. E. Van Brunt, Jr.
Executive Vice President
Arizona Nuclear Power Project
Post Office Box 52034
Phoenix, Arizona 85072-2034

Dear Mr. Van Brunt:

SUBJECT: REVIEW OF PROPOSED CHANGES TO FINAL SAFETY ANALYSIS REPORT (FSAR) CHAPTERS 1, 8, AND 9

REFERENCE: ANPP Letter, J.G. Haynes to G.W. Knighton, ANPP 39456 - JGH/JKR/98.05, dated December 19, 1986

The staff has completed its review of your submittal of December 19, 1986, which proposed changes to Chapters 1, 8, and 9 of the Palo Verde FSAR. The proposed changes include (1) a modification which changes the source of cooling water to the diesel generator governor oil cooler from the spray pond water system to the diesel generator jacket cooling water system; (2) changes to the unit load rejection test to include a simultaneous test of the fast bus transfer; (3) taking an exception to Reg Guide 1.108; and (4) changes to the PVNGS transmission network. The details of the staff's evaluation are presented in Enclosure 1.

The results of our review indicate that the proposed changes will be acceptable upon receipt of documentation correcting the deficient items identified in Section 2, 4, and 5 of Enclosure 1.

If you have any questions regarding this letter please let me know.

Sincerely,

/S/

Michael J. Davis, Project Manager
PWR Project Directorate No. 7
Division of PWR Licensing-B

Enclosure:
As stated

cc: See next page

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ENCLOSURE 1

EVALUATION OF ACCEPTABILITY OF PROPOSED CHANGES TO PALO VERDE FSAR CHAPTER 1, 8 AND 9

1.0 INTRODUCTION AND SUMMARY

The applicant, Arizona Public Service Company, submitted several proposed changes to the Palo Verde Nuclear Generating Station (PVNGS), Unit 3 FSAR in a letter, ANPP-89456-JGH-JKR-98.05, dated December 19, 1986 (Reference 1). These changes involve (1) a modification which changes the source of cooling water to the diesel generator governor oil cooler from the spray pond water system to the diesel generator jacket cooling water system; (2) changes to the unit load rejection test to include a simultaneous test of the fast bus transfer; (3) taking an exception to Regulatory Guide (RG) 1.108; and (4) changes to the PVNGS transmission network. The results of our review of these changes are presented in the following sections.

2.0 FSAR CHANGE 1: DIESEL GENERATOR GOVERNOR OIL COOLER COOLING WATER SOURCE

Evaluation

Our review of the information contained in the applicant's submittal (Reference 1) against FSAR Sections 9.5.5.2, FSAR Figure 9.5-9 (Sheets 1, 3 and 4) FSAR Figure 9.5-10 and FSAR Section 1.8 indicated that while this

proposed change of cooling water source to the governor oil cooler from the ESPS to the jacket water cooling system may cause the governor oil temperature to be higher, this higher oil temperature will not adversely affect the operation of the governor.

However, our review did show that discrepancies in incorporation of this revised information into the FSAR exist. Specifically, FSAR Figure 9.5-9 (Sheet 4) does not show the same change that is described in the revised text of Section 9.5.5.2. Also the change has not been made on FSAR Figures 9.5.9 (Sheets 1 and 3), 9.5-10 or in the response to RG 1.108 (Cooling Water System) on Pages 1.8-63 and 1.8-64.

Conclusion

This proposed FSAR change is acceptable conditioned on the applicant's action to clarify and coordinate the change such that the FSAR text describes and the FSAR figures show the same configuration for the Diesel Generator Governor Oil Cooler Cooling Water Supply.

3.0 FSAR CHANGE 2: CHANGES TO UNIT LOAD REJECTION TEST

Evaluation

Our review of the information submitted by the applicant in Reference 1 proposing to add new PVNGS FSAR Section 1.9.2.4(-) against PVNGS FSAR Section 14.2.12, and CESSAR Section 14.2.12.5.7 indicated that the applicant's submittal was not sufficiently detailed for the staff to evaluate the acceptability of the proposed changes to the Unit Load Rejection Test for Unit 3. By telecon, the applicant was advised that the staff needed additional information that would identify the specific breakers tripped to initiate the test, plant systems and parameters monitored, and acceptable parameter ranges for the monitored parameters that were used as acceptance criteria. Also the applicant was asked to describe how the proposed alternate test method for Unit 3 would differ from the previous test, including how it would initiate and test the fast bus transfer.

The applicant responded by informally sending additional information including brief descriptions of the proposed alternate test, the fast bus transfer and a copy of the previous unit load rejection test procedure. On the basis of this additional information together with that contained in Reference 1, we completed our evaluation of the proposed changes.

Conclusion

The additional information provided by the applicant clarified the purpose and method of performing the test of the unit load rejection capability and the fast bus transfer. On this basis, we believe that the proposed change will not materially change the purpose or result of the test in such a way as to lessen confidence in the ability of the plant systems to perform their safety functions, does not constitute an unreviewed safety concern, and is acceptable.

4.0 FSAR CHANGE 3: EXCEPTION TO REGULATORY GUIDE 1.108

Evaluation

Our review of the information contained in the applicant's submittal (Reference 1) against PVNGS FSAR Section 1.8; RG 1.108, Revision 1; and Generic Letter 84-15 finds that the proposed change involves inserting a response to Position C.2.d of the guide which specifies changes to the diesel generator test schedule from that recommended by the regulatory guide. This proposed test schedule is the same as that given in Table 4.8-1 of the Generic Letter (GL) 84-15 recommendations. However, no information is presented regarding whether or not the applicant has set reliability goals for the diesel generators and has a program for maintaining

the reliability at those values as was recommended in Enclosure 3 to GL 84-15. An example of such goals and a program was given in the Attachment to Enclosure 3 of GL 84-15. Recommended sample additions to plant technical specifications are also included in Appendix A to the Attachment to Enclosure 3 of the generic letter.

Conclusion

The proposed exception to RG 1.108 is acceptable provided the applicant states that he has reliability goals for his diesel generators and has a program for maintaining the reliability of the diesel generators at those values similar to that outlined here.

5.0 FSAR CHANGE 4: CHANGES TO PVNGS TRANSMISSION NETWORK

Evaluation

Our review of the information submitted by the applicant in Reference 1 against the present version of FSAR Sections 8.1 and 8.2 indicated that these proposed changes update the FSAR with regard to changes in the EHV grid, PVNGS switchyard, onsite power distribution system and the offsite power system stability studies. This review raised these concerns: (a) Insert "A" of Reference 1 includes no description of interconnections with the systems of Pacific Gas and Electric Company and of Utah Power and

Light Company but FSAR Figure 8.1 (Sheets 1 and 2) show such interconnections. The FSAR text and drawings should be corrected to make both represent the actual configuration: (b) Page 8.2-1 of Reference 1 refers to four transmission lines in Sections 8.2.1 and 8.2.1.1, however, five such lines are shown in the drawings. The fifth line is shown as the PVNGS - North Gila line. The text or drawings should be corrected to show the actual configurations: (c) Page 8.2-8, Section 8.2.2 of Reference 1 discusses grid outage rates with regard to grid availability. The rates presented, however, are only those for faults. Grid availability is influenced by all outages including those due to causes other than faults. Your discussion should be modified to include the effect on grid availability of outages due to causes other than faults such as unscheduled outages for equipment or transmission line repair, and scheduled outages for routine maintenance and testing of transmission lines and equipment.

Revised FSAR Appendix 8B presents grid stability analyses for three cases of losses or faults on the changed EHV grid. Our review of these analytical results indicates that they support the applicant's statement that the 525KV EHV grid is stable for the conditions and configurations assumed in the analyses.

Conclusion

Our review of FSAR change 4 as evaluated above indicates this change package is acceptable with the exception of the items identified in

evaluations 5a, b and c above. These items should be resolved as suggested in the evaluations and the resolutions included as part of the FSAR amendment package which implements the changes.

6.0 REFERENCE

Letter, J.G. Haynes, Arizona Nuclear Power Project to G.W. Knighton, NRC, ANPP-39456-JGH/JKR/9805, dated December 19, 1986.