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ACCESSION NBR: 8201070069 DOC. DATE: 81/12/07 NOTARIZED: NO DOCKET #  
 FACIL: STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Publi 05000528  
 STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Publi 05000529  
 STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530

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 KERRIGAN, J. Division of Licensing

SUBJECT: Comments on DES (NUREG-0777). Dose-design objectives of  
 10CFR50, App I, operating stds of EPA & 40CFR190, & applicants  
 radwaste mgt sys for facilities provide adequate assurance  
 that radiation doses meet current stds.

DISTRIBUTION CODE: C0028 COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 2  
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NOTES: Standardized Plant. 1 cy: C. Grimes 05000528  
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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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Food and Drug Administration  
Rockville MD 20857

DEC 7 1981

Ms. Janis Kerrigan  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Ms. Kerrigan:

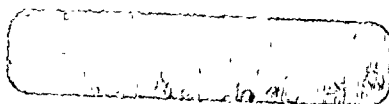
The Bureau of Radiological Health staff have reviewed the Draft Environmental Statement (DES) for the Palo Verde Nuclear Generating Station, Units 1, 2, and 3; NUREG-0777, dated October 1981.

In reviewing the DES, we note that (1) the application for a construction permit is dated July 1974, (2) the NRC staff evaluation was issued as a Final Environmental Statement - Construction Phase in September 1975, (3) DHHS comments were provided on the Draft DES - Construction Phase (Appendix A-110, page A-27) June 10, 1975, prior to issuance of the construction permit in May 1976, and (4) as of July 1981, the construction of Unit 1 was about 90 percent complete, Unit 2 was about 65 percent complete, and Unit 3 was about 24 percent complete. The Bureau of Radiological Health staff have reevaluated the public health and safety impacts associated with the proposed operation of the plant and have the following comments to offer:

1. It appears that the dose-design objectives of 10 CFR 50, Appendix I, the operating standards of EPA's 40 CFR 190, and the applicant's radioactive waste management system for the PVNGS units provide adequate assurance that the potential individual and population radiation doses meet current radiation protection standards. It is recognized that there are no liquid effluents, consequently the doses presented in the DES are from the radionuclides expected to be released annually to unrestricted areas in only the gaseous effluents from normal reactor operations.

2. The environmental pathways discussed in Section 5.9.1: and shown schematically in Figure 5.1 cover all emission air pathways that could impact on the population in the environs of the facility. The dose computational methodology and models (Appendix C and D) used in the estimation of radiation doses to individuals near the plant and populations within 80 km of the plant have provided the means to calculate a reasonable estimate of the doses resulting from normal operations and accident situations at the facility. Results of these calculations are shown in Appendix C, Tables C-4, C-5 and C-6, and confirm that the calculated doses meet the design objectives.

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3. The discussion in Section 5.9.2 on postulated accidents is considered to be an adequate assessment of the radiation dose pathways and dose and health impact (Table 5.12) of atmospheric releases. Under normal operation, there is no release of radioactivity to ground water. However, there is a potential for the accidental release of radioactive material into the hydrosphere through contact with ground water. This pathway could lead to population exposure from inhalation or ingestion of contaminated food or water. Even though this event is unlikely, the emergency plan should include provisions for expanding the ground water monitoring program to be prepared for such an accidental release. In particular, the sample collection points should be in the expected pathway and sample analyses should be specific for the radionuclides that are likely to be released.

Section 5.9.2.4(3) states that the emergency preparedness plan including protective action measures for the Palo Verde facility and environs is in an advanced, but not yet fully developed stage. We will forego further comments on emergency plans, realizing that the process of granting an operating license to the facility will include an adequate review of emergency preparedness (FEMA-NRC Memorandum of Understanding, Regional RAC's, criteria in NUREG-0654). We have representation on the RAC's whose evaluation of the emergency planning relevant to Palo Verde will speak for this agency.

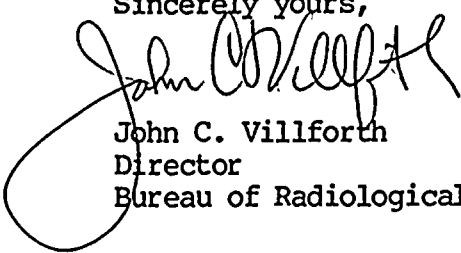
4. The radiological monitoring program, as presented in Section 5.9.1.4 and summarized in Table 5.8, appears to provide an adequate sampling frequency in the expected critical exposure pathways. The analyses for specific radionuclides are considered sufficiently inclusive to (1) measure the extent of emissions from the plant, and (2) verify that such emissions meet applicable radiation protection standards.

In view of some of the monitoring problems during the Three Mile Island-2 accident, we suggest the plan be modified to include a section that addresses the problems of monitoring radiohalogens (especially radioiodines) in the presence of radionoble gases. This could be accomplished by reference to FEMA-REP-2, a document on instrumentation systems prepared with considerable input from NRC.

5. Section 5.10 and Appendix G of this DES contains a description of the environmental impact of the Uranium Fuel Cycle. The environmental effects presented are a reasonable assessment of the population dose commitment and the health effects associated with releases of radon-222 from the uranium fuel cycle.

Thank you for the opportunity to review and comment on this draft document.

Sincerely yours,

  
John C. Villforth  
Director  
Bureau of Radiological Health

