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 MIRAGLIA, F.A. Licensing Branch 3

SUBJECT: Forwards response to 820112 comments on NUREG-0841, DES for facilities.

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February 10, 1982  
ANPP-20126 - JMA/JRM

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PDR ADDCK 05000528  
D PDR

Mr. Frank A. Miraglia, Chief  
Licensing Branch No. 3  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Review of Comments on Draft Environmental  
Statement, Palo Verde Nuclear Generating  
Station, (PVNGS) Units 1, 2 and 3  
File: 82-056-026; G.1.10

Reference: Letter, Frank Miraglia to E. E. Van Brunt, Jr.  
dated January 12, 1982

Dear Mr. Miraglia:

Our responses to the comments forwarded to us in the referenced letter are attached. We also received copies of additional comments on February 4, 1982 and we understand still more comments are expected from three state agencies.

We will forward our responses to these additional comments as soon as possible. Thank you for the opportunity to respond.

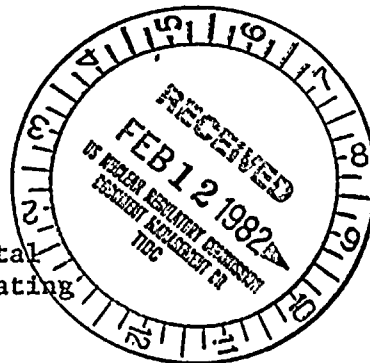
Very truly yours,

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

EEVBJr/JRM/av  
Attachment

cc: M. Licitra  
P. L. Hourihan  
R. L. Greenfield  
A. C. Gehr

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1/1





STATE OF ARIZONA     )  
                              ) ss.  
COUNTY OF MARICOPA)

I, Edwin E. Van Brunt, Jr., represent that I am Vice President Nuclear Projects of Arizona Public Service Company, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority so to do, that I have read such document and know its contents, and that to the best of my knowledge and belief, the statements made therein are true.

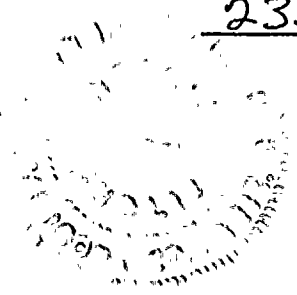
Edwin E. Van Brunt, Jr.  
Edwin E. Van Brunt, Jr.

Sworn to before me this 10 day of February, 1982.

John M. Allen  
Notary Public

My Commission expires:

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We have no responses respecting the comments submitted by the Bureau of Radiological Health of the U.S. Department of Health and Human Services, Region Nine of the Federal Highway Administration of the U.S. Department of Transportation and Ms. Janet D. Mitchell to the Draft Environmental Statement related to the Operation of Palo Verde Nuclear Generating Station Units 1, 2 and 3 (NUREG-0841) (hereinafter "DES").

Respecting the comment of the Arizona Game and Fish Department that it has not abandoned any wildlife project and is continuing to use its commitment of 7,300 acre-feet of sewage effluent, we consider that a modification of the DES is appropriate. Confusion in this area is not surprising since Buckeye Irrigation Company and the Buckeye Water Conservation and Drainage District claim a prior right to all water, including effluent, in the Salt and Gila River channels (see FES-CP, pages A-62 to A-64) and the Arizona Game and Fish Department is not currently pursuing its application to appropriate 7,300 acre-feet of water in the Salt River.

The Department also commented that "any significant reduction in the riparian communities along this stretch (meaning Segment B on Figure 4-4 of the DES or 91st Avenue to Buckeye Heading) of the Gila River will create substantial adverse impacts to the wildlife that depend on this habitat." The statement that a reduction in riparian communities will impact wildlife is perhaps incontestable, but it avoids the real facts that show the diversion of effluent for Palo Verde Nuclear Generating Station (PVNGS) will not result in a significant reduction in riparian communities. The facts are that using the conservative





(i.e., low) COE-EPA projections, flows from the 91st Avenue Plant in 1986 (the "worst" year) will be 118,000 acre-feet (see Table 5.1 of the DES). Assuming that during such year 64,100 acre-feet of such flows are diverted for PVNGS use (an unlikely assumption since commercial operation of Unit 3 is not scheduled until May, 1986) and 30,000 acre-feet are diverted for delivery to the Buckeye Irrigation Company canal via the effluent pipeline, effluent discharges from the 91st Avenue Plant into the Salt River would amount to 24,000 acre-feet. In addition, there would be 17,000 acre-feet of inflow from upstream sources, i.e., principally from the 23rd Avenue Plant (see Table 3.6-3 of U.S. Department of Interior, Fish and Wildlife Service Final Environmental Impact Statement on Clearing of Phreatophytic Vegetation from the Salt and Gila Rivers, Ninety-First Avenue to Gillespie Dam, dated December, 1981). In summation, under the most conservative projections, there would be a total flow of 41,000 acre-feet in the Salt River in 1986 to support downstream riparian communities.

The referenced table adopted by U.S. Fish and Wildlife Services (and not challenged in any way by comments of the Arizona Game and Fish Department) shows that the evapotranspiration of the total phreatophytic growth in the entire segment of the Salt and Gila Rivers from the 91st Avenue to the Buckeye Heading (i.e., Segment B) was only 11,900 acre-feet and groundwater recharge only 3,300 acre-feet in 1976). The conclusion is inescapable, therefore, that the flows in this segment of the rivers will be two to three times more than that required to support the vegetation needed for the riparian communities



that have become established there. Consequently, it is improper to conclude or imply that wildlife dependent upon such habitat will be adversely affected.

With respect to the comments submitted by Ms. Sharon Harrington, we offer the following responses:

1. The second and third paragraphs of Ms. Harrington's letter are of such a general nature that no specific answer can be made. The DES in its entirety does indeed address the social and economic costs involved with the operation of PVNGS. The effects of disposal of all radioactive wastes, including plutonium-230, are addressed in Section 5.10 and Appendix G of the DES, and the likeliness and consequences of accidents are discussed at great length in Section 5.9.2 (pages 5-30 to 5-60) and Appendices E and F of the DES. In the absence of a clear statement of specific objections to the analyses and evaluations in the DES, no responses are possible.
2. The statements and innuendos in the third paragraph of Ms. Harrington's letter are incorrect and misleading. First, the source of condenser cooling water for PVNGS is wastewater effluent from the regional 91st Avenue Sewage Treatment Plant, as the DES makes abundantly clear (see Sections 4.2.3, 4.2.8, 4.3.2.7, 5.3.1.1 and 5.5.1.2). Second, the reuse of wastewater effluent for electric generation conserves potable surface water and groundwater. Third, APS has effectively pursued water conservation measures with significant effort and cost and has



reduced its cooling water requirements by 20-25% (see Section 4.2.3 of the DES). Fourth, APS' requests for water from the Central Arizona Project (CAP), which have been pending for a number of years, have no relation to the operation of PVNGS. In fact, the allocations of CAP water recommended by the Arizona Department of Water Resources contemplate that no CAP water will be made available for electric generation until 2005.

3. Ms. Harrington's fifth paragraph implies that PVNGS is situated on 4,000 acres "of the National Palo Verde Forest." Nothing could be more fanciful. As the DES makes clear, PVNGS is situated on land formerly under agricultural cultivation. (See DES, Section 4.3.1.2 and Appendix A, pages A-37 and A-47). If there is a "National Palo Verde Forest," it certainly is not in the vicinity of PVNGS (see DES, Section 4.2 and FES-CP, Sections 2.1, 4.1 and 5.1).
4. Ms. Harrington's sixth paragraph lists seven concerns which, Ms. Harrington states, "the NRC needs to address." The simple answer is that APS and NRC have addressed these concerns. With respect to tornadic winds, see FES-CP, Section 2.6.3 and NRC Safety Evaluation Report - CP Stage (SER-CP and SER-OL), Sections 2.3 and 3.3 and by the NRC regulations, 10 CFR Part 50, Appendix A, Criterion 4. With respect to the crossing of the Hassayampa by the effluent pipeline, see DES, Section 4.2.8. With respect to the intense summer heat, the concern



apparently is safety-related, rather than environmental-related and has been addressed in the applicants' PSAR, Sections 2.3.1 and the SER-CP and SER-OL Section 2.3, and by the NRC regulations, 10 CFR Part 50, Appendix A, Criterion 2. The concern respecting emergency communication facilities has been addressed in the applicants' on-site emergency plan and in the State of Arizona radiological emergency plan which will be reviewed by both FEMA and NRC (see DES, Sections 5.9.2.4 (3)). The statement respecting 3-1/2 hours of primary cooling water is inaccurate; and the subject is dealt with in the NRC Staff's (CESSAR and PVNGS) Safety Evaluation Report Operating License Stage (SER-OL), Section 6.3 (ECCS). The record of Bechtel Power Corporation is excellent as demonstrated by the number of successful nuclear plants with which it has been engaged as engineer and/or constructor. The qualifications of Bechtel were reviewed by the AEC at the construction permit stage (see SER-CP, Section 17.3 (QA). The environmental impacts of the uranium fuel cycle, including uranium mining and milling, are addressed in the DES, Section 5.10 and Appendix G. The rights of specific Indian tribes respecting the development of specific uranium resources are properly the subject of environmental statements that are required in connection with any such proposed development. They are not matters for appropriate discussion in the PVNGS DES since the uranium sources for PVNGS are not restricted to Indian lands, let alone any particular reservation.





5. The final comment of Ms. Harrington relates to restrictions imposed upon her participation in a meeting held by a subcommittee of the Advisory Committee on Reactor Safeguards (ACRS) in Phoenix on November 23 and 24, 1981. It is correct that the ACRS subcommittee chairman did state that such meeting was not the proper forum for general public comments, but, nonetheless, Ms. Harrington was permitted to make a public statement to the subcommittee.

In response to Ms. Harrington's last comment and inquiry, it must be acknowledged that the licensing process is both very complex and perplexing. At the same time it must also be stated that the entire process is open and public. All meetings and hearings are preceded by published notices. Local public document rooms are maintained as depositories of all submittals by applicants and the NRC staff. NRC proceedings are conducted in accordance with published rules and regulations in much the same manner as judicial proceedings. The entire licensing process has received the repeated and continuing oversight of Congress and its several committees.

The short of it seems to be that the preservation of constitutional rights of "due process," with all of the complex, legal procedures which such preservation entails, sometimes seems to get in the way of simple, straight-forward solutions. The same also can be said of other guaranteed constitutional rights, such as the freedom of religion and speech. If there is a way to simplify the NRC licensing process and make it more direct, meaningful and expeditious, APS will support it.



The foregoing responses to Ms. Harrington's comments are applicable also to the nearly similar comments of Myron L. Scott, and no further responses appear warranted.

In response to the comments of John F. Doherty relating to the effects of releases of radon-222, primarily resulting from the mining and milling of uranium, the matter has been the subject of prolonged and exhaustive investigations and studies in several other licensing proceedings as indicated in Appendix G to the DES. The upshot of such investigations and studies is that the health effects of radon-222 released from uranium mining and milling constitute only a very small fraction (about one-tenth thousandths to one-fifty thousandths) of the health effects from natural-background radon-222 emissions. Under such circumstances, further research and studies would not be productive.

