



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

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Mr. William H. Regan, Jr., Chief
Environmental Projects Branch 2
Division of Site Safety and
Environmental Analysis
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Regan:

The Department of the Interior has completed its review of the draft environmental statement for the Palo Verde Nuclear Generating Station, Units 4 and 5, Maricopa County, Arizona. We have the following general comments and additional comments in areas in which we have jurisdiction and special expertise.

General

The draft statement could be improved in Chapter 2 by referencing previously published statements and/or reports rather than rewriting this material. We suggest that Chapter 2 could be handled similar to the text under paragraph 3.8.3.

While the draft statement does address most of the project caused environmental impacts, we find that it did not discuss the cumulative aggregation of impacts which would result when all five units are operating. We feel that this omission should be reconsidered in the final.

The statement does not identify residual impacts remaining after mitigative measures are applied. We find that mitigative constraints are scattered throughout the document, and that those measures which are required by various legal constraints are not specified (see the Palo Verde to Devers document for an example of how those measures could be presented).

The statement should have discussed, in Chapter 3, the proposed intertie to the 500 kV transmission line, Palo Verde to Yuma to Miguel Substation. We are also concerned that the language used to describe the location of the transmission line from the Generating Station to Devers Substation makes it appear as if the line

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were approved and in place. The final statement on this line has only just been filed, and no segment has been approved.

The statement does not indicate, with any specificity, how spent fuel assemblies would be handled. The discussion of "burial of radwastes in Federal repositories" is premature since no decision has been made as to whether such burial would be safe or even accomplished.

We disagree with the justification given for not modifying the staff's conclusions on accident consequences as a result of NRC's acceptance of the findings of the Lewis Report (p. 7-4, last par.). The Lewis Report reviewed WASH-1400, which evaluated probabilities and consequences of core-melt (class 9) accidents. It is argued that the staff's conclusions need not be modified because the staff did not use WASH-1400 in arriving at its conclusions, which were based on procedures in the Proposed Annex to Appendix D, 10 CFR Part 50, the results of which are shown on tables 7.1 and 7.2 (p. 7-4, last par.). However, these analyses and procedures specifically exclude the evaluation of class 9 or core-melt accidents. Thus, if it is asserted that WASH-1400 was not used by the staff, it becomes clear that core-melt accidents were never considered in this environmental analysis. The conclusion "that the risks due to postulated radiological accidents are exceedingly small and need not be considered further" (p. 7-4, par. 2) simply has ignored the probabilities and consequences of core-melt accidents. It may well be that the staff never used WASH-1400 to arrive at this conclusion, which has appeared unchanged in every nuclear power reactor environmental statement issued since July 1973.

It is surprising, however, that the staff would not have used this report, resulting from the Reactor Safety Study, the primary purpose of which was to answer questions on the probabilities and consequences of core-melt accidents. For our part, we had carefully considered WASH-1400 in our reviews of environmental statements ever since it was first circulated in draft form, for two reasons. First, the NRC staff had briefed DOI staff on the Reactor Safety Study at its inception, giving particular assurance that this study would be responsive to DOI's concerns over the lack of evaluations of the consequences of class 9 accidents in the environmental analysis of nuclear power reactor sites. Second, every environmental statement on power reactors since the publication of this report has referred to WASH-1400 as an assessment of probabilities and consequences of class 9 accidents that were not evaluated elsewhere in these statements. Clearly the staff had put WASH-1400 forward, to reviewers of power--reactor environmental statements and to the public, as the basis and justification for not further evaluating the consequences of class 9 accidents. To repeat, it is surprising to find now that the staff itself did not use this report.

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In our review of WASH-1400 we found the evaluation of consequences on water resources to be inadequate and misleading, and the report therefore not adequate for evaluating the suitability of power reactor sites. On the other hand, probabilities for core-melt accidents estimated in WASH-1400 were much larger than had previously been estimated and significant enough to warrant consideration of the consequences in the site-selection process.

Findings in the Lewis Report on the uncertainty of accident probabilities, and its recommendation against using WASH-1400 in the licensing process because of inadequacies in its consequence models, strongly suggest that the staff needs to reconsider its conclusions on environmental risks of accidents.

In regard to the discussion of decommissioning procedures (p. 10-3 through 10-5), we recommend inclusion of plans for abandonment of the evaporation ponds to avoid the possibility of delayed impacts.

Fish and Wildlife Resources

The extent of riparian vegetation loss in the Gila River below the 91st Avenue treatment plant should be enhanced with more specific information on how much will be lost or degraded and for how long. Does the projected increase in sewage effluent from the 91st Avenue plant rely on present plant capacity or is expansion foreseen? If the figures rely on expansion, this should be mentioned.

The increase in salt loads in the soil surrounding the project should be carefully monitored to detect any adverse impacts. As is stated in the draft statement, many plants and animals could be adversely affected by the increase in salts. These impacts should be known and minimized to the extent possible.

The extent of utilization of project facilities by wildlife should be monitored.

Revegetation of disturbed lands should begin as soon as possible after construction. In very sensitive areas, revegetation could be beneficial in holding adverse impacts to a minimum. In Fish and Wildlife Service comments on the Palo Verde-Devers Transmission Line to the Bureau of Land Management in December 1978, it was suggested that the use of helicopters for construction and maintenance of the line be considered instead of building roads in sensitive areas.

We feel that all environmental impacts are worthy of note and should be minimized to the extent possible. Even if a small part of the available habitat would be impacted, those adverse impacts should be minimized and recovery measures instituted. Any environmental decisions should be coordinated with the Arizona Game and Fish Department, U.S. Fish and Wildlife Service and the Bureau of Land Management.

Recreation Resources

Our initial review of the environmental statement for PVNGS units 1, 2 and 3 in 1975 indicated that the recreation aspects had been adequately discussed for the site area and that there were no conflicts with any Land and Water Conservation Fund projects. This assessment still holds true and we, therefore, have no additional comments to add on recreation in the plant site area.

Mineral Resources

Conclusions of previous mineral resource reviews were that, although some potential exists for clay and sand and gravel production in the area, withdrawal of the site from mineral development would not significantly alter the availability of such minerals in the area. Moreover, the document recognizes the existence of clays and sand and gravel in the area and states (p. 2-15) that subsurface studies and construction activities at the site have not disclosed the presence of other mineral resources.

A new transmission line will be necessary to deliver power from the plantsite to southern California. According to the document (p. i), final transmission corridors are not yet known. Therefore, it is not possible to determine the extent of possible conflict between mineral resources and industry and the transmission lines as described on pages 3-19 through 3-22.

Cultural Resources

Due to the lack of clarity and limited scale of Figure 3.8, it is difficult to determine the exact location of the proposed transmission corridor. Although it does not appear that the proposed route from the Devers substation to Mira Loma would cross the potential Mt. San Jacinto Wilderness-Mt. San Jacinto Fault Scarp National Natural Landmark, (see attachments) we wish to call your attention to the presence and status of this area. This potential landmark area is scheduled to be evaluated by the Department's Heritage Conservation and Recreation Service in the next few months in order to determine whether or not the area should be added to the National Registry of Natural Landmarks. A final decision will be made later this year following completion of the studies and recommendations to the Secretary of the Interior. The final statement should address any possible aesthetic impacts that the construction and presence of the transmission lines would have on the area.

Other cultural resource concerns appear to be adequately discussed. The applicant has indicated that historic, archeological, and other cultural resource survey work will be conducted as soon as

final transmission corridor alignments are known (p. 4-22). However, we wish to stress the importance of allowing flexibility in these transmission alignments so that it remains possible to avoid any identified resources by slight alignment shifts. We urge completion of as much of this field investigation as possible prior to issuance of the final statement.

Water Resources

There is insufficient identification of the evaporating pools' leachates, and the impact of such leachates on ground water. Of special concern would be the impacts of heavy metals and, possibly, radionuclides.

We hope these comments will be of assistance in preparing the final statement.

Sincerely,



Larry E. Meierotto

Assistant

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