

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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In the Matter of )

ARIZONA PUBLIC SERVICE COMPANY, )  
et al. )

(Palo Verde Nuclear Generating )  
Station, Units 1, 2 and 3) )

Docket Nos. STN 50-528  
STN 50-529  
STN 50-530

SUPPLEMENTAL RESPONSE OF INTERVENOR PATRICIA  
LEE HOURIHAN TO JOINT APPLICANTS' AND NRC STAFF'S MOTIONS  
TO STRIKE INTERVENOR'S MOTION FOR LEAVE TO FILE RESPONSE

Intervenor Patricia Lee Hourihan submits the following supplemental response to Joint Applicants' and Nuclear Regulatory Commission ("NRC") Staff's Motions to Strike her Motion for Leave to File Response, filed on February 23, 1983. As represented in her response filed on March 20, 1983, she is submitting a supplemental affidavit of Dr. Robert F. Turner and additional documentation about Joint Applicants' application for a license for the evaporation ponds.

One must conclude from Dr. Turner's supplemental affidavit and documentation obtained from the Arizona Department of Water Resources, that contrary to joint applicants' representations, they did not forward all information and analysis they had on the environmental effects of the evaporation ponds to the NRC. Further, it is clear that the NRC Staff did not have accurate and complete information when it completed its environmental impact statement.

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I. DR. TURNER'S SUPPLEMENTAL AFFIDAVIT ESTABLISHES THAT JOINT APPLICANTS OBTAINED INFORMATION ABOUT THE POTENTIAL ENVIRONMENTAL EFFECTS OF THE EVAPORATION PONDS WHICH WAS NEVER FORWARDED TO THE NRC.

Joint applicants argued in their response to Ms. Hourihan's original submission of February 23, 1983, that Dr. Turner's work was only part of a preliminary study which reached no results important to the applicants' environmental report or the Staff's environmental assessments. Joint applicants also contended that the current rubberized asphalt-hypalon liner will solve any of the problems raised by Dr. Turner in his affidavit.

However, contrary to the statements made in Dr. Goldman's and Mr. Bingham's affidavits, the study which Dr. Turner headed did compile important results on the possible environmental damage caused by the evaporation ponds. As stated in his supplemental affidavit the objective of his project was to establish and assess the environmental consequences of salt water infiltration of the aquifer which would occur if the liner of the ponds failed. His team determined that "there existed the potential for massive environmental damage." The NUS Corporation also found that neither a soil nor a concrete liner was a viable option because of the severe environmental damage which would occur if, as was likely, the liner failed. Joint applicants stated in their Environmental Report Construction Permit Stage, Section 3.6.3.2 that the evaporation pond would be lined with a "suitable material to limit seepage to the groundwater." However, this statement omits the finding that both concrete and soil liners were clearly not suitable.

In fact, as explained later, Part II infra, the Arizona Public Service Company ("APS"), as late as 1980, had not determined the

type of lining it would use for the evaporation ponds. It appears that only when pressed by the Department of Water Resources did APS decide to install a rubberized liner.

Therefore, it is clear that APS had a great deal of information from the NUS Corporation studies about the environmental effects of the evaporation ponds which was never submitted to the NRC, and which was deliberately omitted from the Environmental Report-CP.<sup>1/</sup>

II. ACCORDING TO DOCUMENTS OBTAINED FROM THE ARIZONA DEPARTMENT OF WATER RESOURCES THE LINER CHOSEN AND INSTALLED BY APS MAY STILL NOT PREVENT CONTAMINATION PROBLEMS FROM THE EVAPORATION PONDS.

The NRC Staff stated in its response to Ms. Hourihan's original submission that the evaporation pond liner permeability was no problem at this time because it was 10,000 times less permeable than the original design. It cited the FES-OL, Section 5.3.2.1: "[T]he evaporation pond will require approval permits from the Arizona Department of Health Services, Bureau of Waste Control." NRC Staff Response, at 6.

Joint applicants represented to this Licensing Board on February 24, 1983, that it had received state approval for the evaporation ponds.

However, intervenor has learned that it is the Arizona Department of Water Resources ("DWR") and not the Department of Health Services which considered APS's application for a license for the

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<sup>1/</sup>Dr. Turner, in his supplemental affidavit, corrects a number of other misleading statements made in Dr. Goldman's affidavit.

evaporation ponds. Therefore, it appears that the NRC Staff is not cognizant of the relevant state agency charged to license the ponds. In addition, DWR has since 1980 exchanged a number of letters with APS regarding the showing APS would be required to make to obtain a license for the ponds. Correspondence obtained from the Department suggests APS may not have answered all DWR's questions.

DWR granted APS a license for the evaporation ponds on the day after Dr. Turner's affidavit was filed. In fact, intervenor would be surprised if joint applicants had been notified that the license had been granted at the time that representation was made to this Licensing Board.

The following correspondence between the Arizona Department of Water Resources, Division of Safety of Dams, and APS shows that the Arizona agency which granted APS a license for the evaporation ponds has pushed joint applicants to provide information and assurances on the evaporation ponds since 1980:

(1) On September 17, 1980, Mr. E. E. Van Brunt of APS wrote to Mr. Benson Scott, Chief Supervisor of Dam Safety, that APS had not yet selected the liner type for the evaporation ponds. In addition, he attempted to convince Mr. Scott that the selection of a liner should not affect Mr. Scott's review since the evaporation ponds were protected without a liner. See Van Brunt Letter, attached and incorporated herein as Exhibit 2.

(2) A November 18, 1980 Memorandum from Mr. Jerry Cox of the Department of Water Resources to Mr. Saunders, APS, states that DWR is interested in the lining since it is being used to protect



against piping and should be properly constructed. See Memorandum of November 18, 1980, attached and incorporated herein as Exhibit 3.

(3) In a December 1, 1980 Memorandum to the File, M. L. Arbaugh of DWR states that it is "particularly important that the impervious liner function correctly." See December 1, 1980 Memorandum, attached and incorporated herein as Exhibit 4.

(4) A series of inspection reports completed from September 1, 1981 to June 4, 1982, indicate that the Division of Dam Safety found a number of problems with the evaporation ponds as built, including shrinkage cracks; construction of the evaporation ponds not in accordance with the manufacturer's recommended specifications; and lack of supervision of APS over Bechtel's periodic monitoring. See Inspection Reports, attached and incorporated herein as Exhibits 5A-5E.

In addition, although the questions raised in these inspection reports have not been answered (at least not in public submissions to the Department of Water Resources), DWR granted APS a license for the evaporation ponds on February 24, 1983.<sup>2/</sup> See February 24, 1983 Letter and License, attached and incorporated herein as Exhibit 6.

It is clear that the NRC Staff has no knowledge of the state monitoring of the environmental effects of the evaporation ponds as it was mistaken about the state agency which had authority to grant APS's application for a license. The NRC Staff states in the FES that it was the Arizona Department of Health Services, when it

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<sup>2/</sup>DWR granted a license to APS one day after Dr. Turner's affidavit was filed.

is the Department of Water Resources which has considered the potential environmental harm from the ponds.

Moreover, it is clear that APS as late as 1980 had not determined what kind of liner it would install for the evaporation ponds. See Exhibit 2. Therefore, it is obvious that as late as 1980 APS was not acknowledging the results of Dr. Turner's studies which demonstrated that soil and concrete linings were clearly inadequate, and a rubberized lining was needed. It appears that only when DWR placed pressure on APS did APS decide to install a rubberized liner.

It is clear from the mistakes made by the NRC Staff in the FES that the FES is inaccurate at least as to the issue of possible environmental harm caused by the evaporation ponds. Joint applicants obviously did not inform the NRC Staff of the potential harm they knew, as early as 1973, could be caused by seepage of salt from the evaporation ponds into the aquifer.

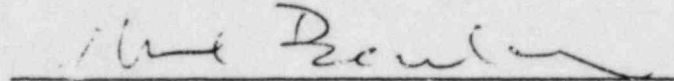
Both of Dr. Turner's affidavits and the documentation intervenor has obtained from the Department of Water Resources show the inadequacy of the NRC Staff's FES and the need for this Licensing Board to grant Intervenor West Valley's motion for a ruling that the NRC Staff's environmental impact statement is inadequate.

### III. CONCLUSION

For the foregoing reasons, intervenor Patricia Lee Hourihan respectfully requests that this Licensing Board grant her motion

for leave to file a response and grant Intervenor West Valley's motion for a declaration that the NRC Staff's NEPA Analysis is legally inadequate under the National Environmental Policy Act.

Respectfully submitted,



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