

AFFIDAVIT OF  
NRC STAFF  
SUPPLEMENTAL TO  
THE FINAL  
ENVIRONMENTAL STATEMENT  
FOR WASHINGTON PUBLIC POWER  
SUPPLY SYSTEM NUCLEAR PROJECT

(Docket No. 50-513)

by

JAN A. NORRIS

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
WASHINGTON PUBLIC POWER	)	Docket No. 50-513
SUPPLY SYSTEM	)	
(WPPSS Nuclear Project No. 4)	)	

AFFIDAVIT OF JAN A. NORRIS

I, Jan A. Norris, having been duly sworn do depose and state that:

I am the Environmental Project Manager on the Technical Staff of Environmental Projects Branch No. 3 of the Division of Site Safety and Environmental Analysis, United States Nuclear Regulatory Commission. As a member of the NRC Staff, I am responsible for managing and coordinating the review of the Applicant's Environmental Report and the overall preparation of the NRC Environmental Statement to meet the requirements of the National Environmental Policy Act ("NEPA") and the requirements of 10 CFR Part 51 in connection with the application to the Commission for a construction permit for the WNP-4 nuclear reactor. A copy of my professional qualifications is inserted into the transcript as if read following Tr. page 454. The purpose of my testimony is to provide an update of the environmental impact statement to ensure that the decision of the Licensing Board is based on the most current information available.

I. BACKGROUND

The evidentiary hearings on Environmental and Site Suitability issues for WPPSS Nuclear Projects No. 1 ("WNP-1") and No. 4 ("WNP-4") were conducted on May 13-15, 1975 at which time certain exhibits were received into evidence by the Atomic Safety and Licensing Board ("Board"). As part of its Partial Initial Decision on NEPA and Site Suitability issues, In the Matter of Washington Public Power Supply System (WPPSS Nuclear Projects 1 & 4), LBP-75-41, NRCI-75/7, 131 the Board concluded that the environmental review conducted by the Staff pursuant to NEPA was adequate and that "the requirements of Section 102(2)(C) and (D) of NEPA and 10 CFR Part 51 have been complied with in this proceeding." The Board also concluded that "upon an independent consideration of the final balancing among conflicting factors contained in the record of the proceeding and after weighing the environmental, economic, technical and other benefits against environmental costs and considering available alternatives, the appropriate action to be taken is the issuance of construction permits for the facility, with appropriate conditions as set forth herein for protection of the environment." NRCI-75/7, 157. The Board indicated in a footnote, however, that the "determination should not be construed as authorizing the issuance of construction permits at this time." "The issuance of construction permits is contingent upon the outcome of the evidentiary hearing on health and safety issues." The Board's findings and conclusions with respect to environmental and site suitability consideration were based in part on the finding of fact that the Pacific Northwest is an area where

there is a high degree of coordination and cooperation between utilities involved in the generation and transmission of electric power. NRCI-75/7, 140-141. The Board determined that WNP-1 and WNP-4 will be constructed and operated (Tr. 170-171, 498-513), to meet the anticipated annual energy load (as opposed to peak demand) of the West Group. The Board evaluated the need for the facility in the context of this anticipated load. NRCI-75/7, 131, 141. The Board found that "planning for resources to meet regional loads is based upon studies prepared by the Pacific Northwest Utilities Conference Committee (PNUCC), which prepares an annual 11-year forecast of loads and resources for the region, known as the West Group Forecast (Forecast). (Applicant's Exhibit 4)." NRCI-75/7, 130, 141. The Board noted that "PNUCC also expands the forecast into a 20-year planning document entitled "Long Range Projection of Power Loads and Resources of Thermal Planning - West Group Area." And that

"[T]hese documents form the basis for utility planning for future resources in the regions. Since it is the function of the Applicant to serve the power requirements of public bodies in the Pacific Northwest, the demand characteristics of the region are viewed as the demand characteristics of the Applicant. (ER Section 1.1; FES Section 8.1)." NRCI-75/7, 141.

The Board found:

"Each utility in the West Group Area reviews its forecast of loads made in the previous year to determine if its forecasts are valid based upon the actual experience in the previous year. Changed conditions are noted and a revised forecast of loads is made, if appropriate. Energy availability is then estimated, and adjustments are made as necessary to reflect current

construction schedules and planning dates. These revised forecasts of loads and estimates of energy availability are transmitted to the PNJCC where they are compiled on a yearly basis. The totals then become the data used in the West Group Forecast. (ER Section 1.1; Gallop Testimony, following Tr. 164)." NRCI-75/7, 142.

The Board found:

"A comparison between loads and resources is made in the Forecast to detect any deficiencies in planning of resources to meet load. When deficiencies are detected, the utilities revise their plans on a coordinated basis to meet the deficiencies. Conversely, when surpluses are detected the utilities revise their plans on a coordinated basis to defer surplus resources.

The Forecast of February 1, 1975 indicates a reduction in estimated loads from the levels predicted in the 1974 forecast, i.e., a reduced rate of increase in demand, but also indicates that, on a regional basis there will be a need for the energy to be produced by the proposed facility (Gallop Testimony, following Tr. 164)." NRCI-75/7, 142.

The Board found that:

"upon consideration of the entire record, that there will be a need for the base-load energy which can be reproduced from WNP-1 and WNP-4 in the time-frame in which those plants are anticipated to operate." NRCI-75/7, 142.

The evidentiary hearings on radiological health and safety issues were conducted on November 11-13, 1975, at which time the Applicant requested that consideration of its financial qualifications to construct WPPSS



Nuclear Project No. 4 ("WNP-4") and issuance of a construction permit for WNP-4 be deferred. (Applicant's Exhibit 17).

The Applicant indicated that the Washington State public utilities could not sign participation agreements for WNP-4 until certain secondary environmental impact statements required by State law were completed. The Staff reviewed the Final Environmental Statement and the Board's findings in the Partial Initial Decision in light of the Applicant's request to delay both consideration of the financial qualifications for WNP-4 and the issuance of a construction permit for WNP-4. The Staff addressed the effect of the requested delay by assuming, conservatively, an indefinite postponement of WNP-4. That assumption bounded an evaluation of any effects a limited delay (e.g., for six months) might have on the environmental effects evaluated in the FES and the findings by the Board in the Partial Initial Decision. The Staff also conservatively assumed that the majority of the impacts resulting from construction and operation of the project are assigned to WNP-1. The environmental effects due to construction and operation of WNP-1 alone are set out in Supplemental Table A to the FES (Sharma and Conner, Tr. following p. 734). The Staff concluded, and the Board found, that in view of the generally small environmental costs from construction and operation for either WNP-1 and WNP-4 together, or WNP-1 alone, the cost-benefit balance is favorable for both cases. NRCI-75/12, 938.

The Staff also concluded, and the Board found, that the environmental analysis for WNP-1 and WNP-4 reflected in the FES, as supplemented by the further assessment with respect to the environmental impacts and the cost-benefit analysis for WNP-1, complied with the requirements of the National Environmental Policy Act of 1969 ("NEPA") and 10 CFR Part 51. Accordingly, the Board, after balancing the environmental economic, technical and other benefits against environmental and other costs, and considering available alternatives, confirmed its NEPA and site suitability findings made in the Partial Initial Decision. The Board found that the review conducted by the Staff was adequate and that the action called for under NEPA and 10 CFR Part 51 was the issuance of a construction permit for WNP-1, subject to the limitations for the protection of the environment listed in Paragraph 7 of the Summary and Conclusions on page ii of the FES. (Norris, Tr. following p. 732; Sharma and Connor, Tr. following p. 734). NRCI-75/12, 939.

Accordingly, on December 22, 1975, the Board issued an Initial Decision authorizing the issuance of a construction permit for WNP-1 (NRCI-75/12, 922). On December 23, 1975, the Commission issued CPPR-134, the construction permit for WNP-1.

Although the findings of fact and conclusions of law made by the Board in its Initial Decision (NRCI-75/12, 922 (December 22, 1975)), related to both WPPSS and Nuclear Project No. 1 ("WNP-1") and WNP-4,

the findings and conclusions relating to financial qualifications related only to WNP-1. See n. 28, NRCI-75/12, 943. The Board noted in its Initial Decision (NRCI-75/12, 928) that it would receive additional evidence from the parties with a view toward supplementing its Initial Decision at a suitable time with appropriate findings relating to the Applicant's financial qualifications to construct WNP-4.

## II. STAFF'S SUPPLEMENTAL ENVIRONMENTAL ANALYSIS

By a letter of July 9, 1976 from N.S. Reynolds to the Atomic Safety and Licensing Board and also by letter of July 19, 1976 (as supplemented by a letter of July 23, 1976) from D. L. Renberger to the NRC Staff the Applicant indicated that the Participants' Agreements for the output of WPPSS Nuclear Project No. 4 (WNP-4) have been executed and that the Applicant is ready to demonstrate that there is reasonable assurance that it is financially qualified to design and construct WNP-4.<sup>1/</sup>

The Staff has reviewed (a) the Final Environmental Statement (FES) for WNP-1 and WNP-4, as supplemented by the hearing record; (b) the Board's findings of fact made in its Partial Initial Decision (NEPA and Site Suitability Issues), NRCI-75/7, 131 (July 30, 1975) and

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<sup>1/</sup> The Staff's analysis of Applicant's financial qualifications is being submitted by Affidavit of Jim C. Petersen concurrently with this affidavit.



(c) the Board's findings of fact made in its Initial Decision (NRCI-75/12, 922 (December 22, 1975)). The NRC Staff's supplemental review was initiated based on Applicant's request that a construction permit be issued for WNP-4 and the Applicant's information demonstrating that it has reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs for WNP-4.

Since the issuance of the Construction Permit CPPR-134 for WNP-1, estimates of load and resource availability of the utilities in the Pacific Northwest have changed. This is reflected in the West Group Forecast for 1976 prepared by the Loads and Resources Subcommittee of the Pacific Northwest Utilities Conference Committee and published on March 1, 1976. The changes reflected in the most current load and resources forecast of the West Group 1976 Forecast were reviewed and analyzed by the NRC Staff in June 1976 as part of the licensing proceeding for WNP-3 and 5 (Docket Nos. STN 50-508 and STN 50-509) for the same Applicant. This analysis is contained in the Affidavit of Donald W. Connor which is enclosed with this affidavit as Enclosure A, and may be relied on for purposes of updating, as necessary, the need for power conclusions with respect to WNP-4. This Board has previously concluded that the West Group Forecast (Forecast) and the "Long Range Projection of Power Loads and Resources for Thermal Planning - West Group Area" form the basis for utility planning for future resources in the region.

Thus "[s]ince it is the function of the Applicant to serve the power requirements of public bodies in the Pacific Northwest, the demand characteristics of the region are viewed as the demand characteristics of the Applicant. (ER §1.1; FES §8.1)" NRCI-75/7, 131, 141.

And, in pertinent part, that:

"\*\*\* The Pacific Northwest is an area where there is a high degree of coordination and cooperation between utilities involved in the generation and transmission of electric power, ...".

\* \* \* \*

It is to meet the anticipated annual energy load (as opposed to peak demand) of the West Group Area that WNP-1 and WNP-4 will be constructed (Tr. 170-171, 498-513), and the Board has evaluated the need for the facility in the context of this anticipated load." NRCI-75/7, 131, 140-141.

A comparison of the table attached to Enclosure A, entitled "West Group Forecast - Estimated Loads and Resources, July 1976 - June 1987", with a similar table included in Appendix E to the FES indicates that for the years 1983-1984 (the year of anticipated availability of WNP-4) the reduction in the forecasted loads for the West Group Area is exceeded by the reduction in the estimated availability of power generating facilities to meet these loads. Therefore, the projected need for WNP-4 appears even greater today than it did a year ago.

III. CONCLUSION

Accordingly, based on our review of the:

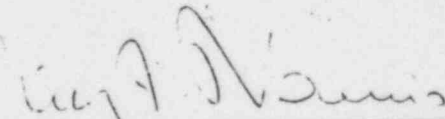
(a) Final Environmental Statement (FES) for WNP-1 and WNP-4, as supplemented and updated;

(b) Board's findings of fact in the Partial Initial Decision;


(c) Board's findings of fact in the Initial Decision of December 22, 1975 (NRCI-75/12, 922);

(d) Changes in the West Group Forecast issued in March 1976;

the NRC Staff concludes that (1) the environmental analysis for both WNP-1 and WNP-4, as reflected in the FES, as modified by the record, including the projected need for power for WNP-4, is current and complies with the requirements of the National Environmental Policy Act of 1969 and 10 CFR Part 51; (2) the current overall cost-benefit balance for the WNP-1, 4 facility favors issuance of a construction permit for WNP-4; and (3) the overall conclusion stated in paragraph 7 of Summary and Conclusions on page ii of the FES "...that the action called... for is the issuance of the construction permits for the facilities...", appropriately conditioned for the protection of the environment, remains unchanged.

  
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Jan A. Norris

Subscribed and sworn before me  
this 6th day of August, 1976.

  
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Notary Public

My Commission expires: July 1, 1978