

May 14, 1998

Mr. J. V. Parrish  
Chief Executive Officer  
Washington Public Power Supply System  
P.O. Box 968 (Mail Drop 1023)  
Richland, Washington 99352-0968

SUBJECT: ENVIRONMENTAL ASSESSMENT RELATED TO AMENDMENT REVISING THE  
SPECIFIED YIELD STRENGTH FOR MATERIAL IN THE EMERGENCY CORE  
COOLING SYSTEM (ECCS) FOR NUCLEAR PROJECT NUMBER 2 (WNP-2) -  
(TAC NO. MA1562)

Dear Mr. Parrish:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for amendment dated April 16, 1998, as supplemented by letters dated April 28, 1998, and May 8, 1998. The proposed amendment would change the maximum yield strength for ECCS suction strainer materials listed in the WNP-2 Final Safety Analysis Report. This change was identified as an unreviewed safety question.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,  
Original Signed By  
Chester Poslusny, Senior Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosure: Environmental Assessment

cc w/encl: See next page

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Mr. J. V. Parrish

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May 14, 1998

cc:

Mr. Greg O. Smith (Mail Drop 927M)  
WNP-2 Plant General Manager  
Washington Public Power Supply System  
P. O. Box 968  
Richland, Washington 99352-0968

Mr. Rodney L. Webring (Mail Drop PE08)  
Vice President, Operations Support/PIO  
Washington Public Power Supply System  
P. O. Box 968  
Richland, Washington 99352

Mr. Albert E. Mouncer (Mail Drop 1396)  
Chief Counsel  
Washington Public Power Supply System  
P.O. Box 968  
Richland, Washington 99352-0968

Ms. Jacqueline Wyland (5)  
Environmental Review Coordinator  
Environmental Protection Agency  
75 Hawthorne Street  
San Francisco, California 94105

Ms. Deborah J. Ross, Chairman  
Energy Facility Site Evaluation Council  
P. O. Box 43172  
Olympia, Washington 98504-3172

Mr. D. W. Coleman (Mail Drop PE20)  
Acting Manager, Regulatory Affairs  
Washington Public Power Supply System  
P.O. Box 968  
Richland, Washington 99352-0968

Mr. Paul Inserra (Mail Drop PE20)  
Manager, Licensing  
Washington Public Power Supply System  
P.O. Box 968  
Richland, Washington 99352

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
Harris Tower & Pavilion  
611 Ryan Plaza Drive, Suite 400  
Arlington, Texas 76011-8064

Chairman  
Benton County Board of Commissioners  
P.O. Box 69  
Prosser, Washington 99350-0190

Mr. Scott Boynton, Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
P.O. Box 69  
Richland, Washington 99352-0968

Mr. Perry D. Robinson, Esq  
Winston & Strawn  
1400 L Street, N.W.  
Washington, DC 20005-3502

UNITED STATES NUCLEAR REGULATORY COMMISSIONWASHINGTON PUBLIC POWER SUPPLY SYSTEMNUCLEAR PROJECT NO. 2 (WNP-2)DOCKET NO. 50-397ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-21 issued to Washington Public Power Supply System (the licensee), for operation of WNP-2 located in Benton County, Washington.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

The proposed action would revise the maximum yield strength for emergency core cooling system suction strainer materials listed in the WNP-2 Final Safety Analysis Report (FSAR).

The proposed action is in accordance with the licensee's application for amendment dated April 16, 1998, as supplemented by letters dated April 28 and May 8, 1998.

The Need for the Proposed Action:

The proposed action is needed to support the progression to startup for WNP-2, which is currently in a refueling outage. During this outage newly designed suction strainers have been installed in the suppression pool. They are designed to protect ECCS pumps from fibrous or other material that could be transported to the suppression pool after a design basis accident such as a loss of coolant accident. The licensee determined after fabrication of these strainers that the stainless steel material had measured yield strength which exceeded the limit which

was specified in the FSAR. Excessive yield strength can make the stainless steel susceptible to stress corrosion cracking (SCC) under certain environmental conditions. The licensee identified this as an unreviewed safety issue and submitted an amendment request which would change the yield strength for the installed strainers. Approval of this amendment will enable the licensee to change reactor mode and declare the strainers operable while progressing to startup and full power operation.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed action and, based on the testing and analytical information provided by the licensee, concludes that the increase in yield strength for the specific material used in the suction strainers is acceptable. The licensee has an effective cleanup system for the suppression pool, which maintains a desired level of water cleanliness sufficient to avoid conditions that would support SCC. Further, the licensee has conducted a fracture mechanics analysis and has determined that cracking in the surface martensitic structure of the strainers will not propagate to a critical size and, thus, not jeopardize the strainers' safety related function of protecting the ECCS pumps and spray nozzles. Also, the licensee's analysis has demonstrated that the strainers have adequate structural integrity to preclude failure when the forces of design basis hydrodynamic loads are applied. Lastly, a Strauss test using actual strainer material samples demonstrated acceptable stress corrosion cracking resistance.

The staff has concluded that this change will not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable offsite or occupational

radiation exposure. Accordingly, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action does not affect nonradiological plant effluents and has no other environmental impact.

Accordingly, the Commission concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission has concluded there is no significant environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. As an alternative to the proposed action, the staff considered denial of the proposed action. Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for WNP-2 .

Agencies and Persons Consulted:

In accordance with its stated policy, on May 13, 1998, the staff consulted with the Washington State official, Mr. R. Cowley of the Department of Health, State of Washington Energy Facility Site Evaluation Council, regarding the environmental impact of the proposed action. The State official had no comments.

**FINDING OF NO SIGNIFICANT IMPACT**

Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated April 16, 1998, as supplemented by letters dated April 28, 1998, and May 8, 1998, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Richmond Public Library, 955 Northgate Street, Richland, Washington 99352.

Dated at Rockville, Maryland, this 14th day of May 1998.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "Chester Poslusny".

Chester Poslusny, Senior Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation