**Washington Public Power Supply System** 

P.O. Eox 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

DOCKET NOS. 50-460 AND 50-508

May 22, 1985 G01-85-0118 G03-85-0270

Mr. W. J. Dircks Executive Director for Operations U. S. Nuclear Regulatory Commission Washington, D.C. 20555

Subject: SUPPLY SYSTEM NUCLEAR PROJECT NOS. 1 AND 3 READINESS REVIEW

Reference: 1) Letter GO1-85-0027/GO3-85-0057 to J.B. Martin, dated January 31, 1985

 Letter G01-85-0055/G03-85-0153 to J.B. Martin, dated March 20, 1985

Our January 31, 1985 letter (attached) to Jack Martin of Region V outlined a proposal for a series of Readiness Reviews at our WNP-3 and WNP-1 projects. We have met with members of the staff of Region V, the Office of Inspection and Enforcement and most recently with members of both the NRR and I&E offices. The topics of discussion included the future of our delayed projects, our preservation plans and how we plan to implement the Readiness Review concept during the construction delays and after construction resumes.

In our March 20, 1985, letter (attached), we provided Region V and members of the staffs of NRR and I&E with a commitment to complete the delayed projects and to complete the Readiness Reviews, along with an outline of the schedule for Phase I of the Readiness Review.

Phase I, for WNP-3, will begin approximately July 1, 1985, and be complete prior to resumption of construction. This phase of the reviews would focus on the design and construction completed to date. It would assess the design and construction processes and sample the products of both processes so that conclusions can be drawn about the adequacy of the completed work. Phase I of the Readiness Review process for WNP-1 will begin after the Supply System has gained experience from the performance of reviews at WNP-3.

Phase II of the Readiness Reviews will begin following resumption of construction and will include all aspects of new or changed design and construction, and readiness for operations. The goal of Phase II will be to give additional assurance that the projects are ready to operate by conducting a series of reviews that address the adequacy of the design and the design construction processes used to complete the projects.

Mr. W. J. Dircks Executive Director for Operations U.S. Nuclear Regulatory Commission Readiness Reviews Page 2

Closely related to the Readiness Review, which affirms adequacy of design and construction, is the program used to control preservation of equipment and structures at the delayed projects. In mid-April, 1985, the Supply System submitted a working copy of the Preservation Program in effect at WNP-3 to Region V for review prior to meetings with Region V and other concerned NRC offices. Following these meetings the Supply System will formally submit our Preservation Program for NRC review and approval.

Since March, 1985, regional power planning has progressed with indications that both WNP-3 and WNP-1 are still being considered a potential future power source, and both projects remain a cost effective source of power. All indications are that the projects will be completed.

As discussed above, the Supply System has been implementing a Preservation Program and is totally committed to perform a series of Readiness Reviews at our delayed projects. The results of these programs will enable us to finish construction and bring both projects to successful operation status. We are requesting that the Nuclear Regulatory Commission agree to review the program descriptions of the Readiness Reviews at WNP-3 and WNP-1 for approval, agree to participate in the Readiness Review at WNP-3 and WNP-1 and review our Preservation Program Description for approval.

D. W. Mazur Managing Director

cc: Mr. J. A. Adams, NESCO

Mr. G. T. Ankrum, Nuclear Regulatory Commission

Mr. W. L. Bryan, Washington Water Power Company

Mr. H. R. Denton, Nuclear Regulatory Commission

Mr. R. T. Dodds, Nuclear Regulatory Commission Mr. T. Kenyon, Nuclear Regulatory Commission

Mr. G. W. Knighton, Nuclear Regulatory Commission

Mr. J. R. Lewis, Bonneville Power Administration

Mr. J. B. Martin, Nuclear Regulatory Commission
Mr. R. V. Myers, Pudget Sound Power & Light Compa

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Mr. B. K. Singh, Nuclear Regulatory Commission Mr. J. M. Taylor, Nuclear Regulatory Commission

Mr. W. L. Weislogel, Pacific Power & Light Company

Mr. B. D. Withers, Portland General Electric Company

Mr. N. S. Reynolds - Bishop, Liberman, Cook, Purcell and Reynolds

# Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

January 31, 1985 G03-85-0027 G03-85-0057

Mr. J. B. Martin Regional Administrator U. S. NRC - Region V 1450 Maria Lane, Suite 210 Walnut Creek, CA 94596

Subject: SUPPLY SYSTEM NUCLEAR PROJECT NOS. 1 AND 3 READINESS REVIEW PROGRAM

### PURPOSE

The purpose of this letter is to propose a program for the systematic and disciplined review of the Supply System's implementation of design and construction processes to increase the level of assurance that WNP-1 and 3 quality programs have been and will be accomplished in accordance with regulatory requirements.

### BACKGROUND

The Supply System currently has two projects in extended construction delay. We are studying methods that would allow the construction of these projects to be effectively restarted with the projects brought to fuel load with a minimum of problems and delays.

As input to our study we have used our experiences at WNP-2, now operational, which had questions related to the quality of the plant's construction. A major reverification program was instituted to reconfirm the quality of construction. Late in construction the project was also exposed to an assessment by the NRC "CAT" Team. In addition to reviewing these major efforts at WNP-2, we also evaluated the efforts and current experiences of other utilities that have near term or recent licensed plants, along with the recommendations that were part of the NUREG-1055 Report to Congress (Improving Quality and the Assurance of Quality in Design and Construction of Nuclear Power Plants). We have concluded that a structured approach to the detection of possible quality problems needs to be instituted for our currently delayed construction projects.

The structured approach would be similar to the Readiness Reviews that were discussed in NUREG-1055 and would have distinct benefits. A series of formal assessments by the Supply System of the readiness to proceed, at critical stages of a project, would focus the necessary technical and management attention to assure that quality related problems would be detected. These Readiness Reviews would include involvement by the Nuclear Regulatory Commission staff.

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## DISCUSSION

The Supply System has been in contact with Georgia Power Company and has reviewed their plans for performance of a series of Readiness Reviews. Our plans are not fundamentally different, however, our review program will necessitate a two phase approach. The first phase of the review program will deal with "Readiness to Resume Construction." This review will focus on the end products of both design and construction and will produce the initial incremental acceptance of work for the projects at their present stage of construction. The first phase of our review program will include the preservation programs in place, since the delays began, that assures continued integrity of quality. The preservation programs will also be included in the initial incremental acceptance of work.

When construction is resumed, the second phase of our review program will focus on the new control systems being used by our Construction Manager, Architect Engineer and Contractors, along with the output of these control systems. A series of reviews will be conducted to incrementally accept the project work as it progresses toward licensing and fuel load.

The proposed Readiness Review Program does not eliminate or diminish any authorities or regulatory responsibilities now assigned to, or exercised by the Nuclear Regulatory Commission or the Supply System. And the proposed Readiness Review Program does not fundamentally change the techniques of inspections or assurance of quality program activities. Rather, the Readiness Review Program is a management system which provides for the orderly planning and predictable execution of existing authorities and responsibilities.

The Readiness to Resume Construction phase of the review program, which includes the review of the preservation programs, is expected to begin in July 1985, at our WNP-3 project and continue for approximately three years. A separate similar program of reviews will begin at our WNP-1 project in 1986, and conclude approximately three years later.

#### CONCLUSION

The Supply System considers that the proposed Readiness Review Program, including the Nuclear Regulatory Commission's agreement to participate in the program, will result in significant benefits. These benefits will include: enhanced assurance of the overall program acceptability resulting from the Supply System's self-assessment, combined with the phased independent Nuclear Regulatory Commission reviews; and improved stability by minimizing the potential for last minute identification of major programmatic problems. Other benefits resulting from this program are improved planning which will enhance the effective use of critical Nuclear Regulatory Commission and Supply System resources and improved predictability resulting from the early Nuclear Regulatory Commission determination of design and construction adequacy.

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The experience gained through the Supply System's performance of the Readiness Reviews at our delayed projects will provide a significant benefit to other delayed projects, since our program could then be used as a guide. The inclusion of a review of preservation programs will provide a basis for Nuclear Regulatory Commission and industry evaluation of the effect of extended construction delays.

# PROPOSED ACTION

We would like to meet with your staff to present details of our review program and discuss the steps necessary to gain Nulcear Regulatory Commission approval and agreement to participate in the Readiness Review Program.

D. W. Mazur

Managing Director

cc: Mr. J. M. Taylor, NRC

Mr. H. R. Denton, NRC

Mr. G. T. Ankrum, NRC

# **Washington Public Power Supply System**

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000 March 20, 1985 G01-85-0055 G03-85-0153

DOCKET NOS. 50-460 and 50-508

Mr. J. B. Martin Regional Administrator U. S. NRC - Region V 1450 Maria Lane, Suite 210 Walnut Creek, CA 94596

Subject: SUPPLY SYSTEM NUCLEAR PROJECT NOS. 1 AND 3

READINESS REVIEWS

References: 1) Letter GO1-85-0027/GO3-85-0057, dated January 31, 1985,

same subject.

During the February 15, 1985, meeting at the NRC Region V offices we were requested to submit a tentative schedule of activities and milestones that would encompass the initial phase of the Readiness Reviews at WNP-1 and WNP-3. We were also asked to make a firm commitment to the completion of the Readiness Reviews. The commitment and the schedule were needed by the NRC in order to budget appropriate personnel to accomplish the reviews necessary for the acceptance of the work accomplished to date, at both projects.

The schedule of our activities for the next several months is enclosed as well as an outline of the expected milestones for the Readiness Reviews.

As for our commitment to perform Readiness Reviews at WNP-1 and WNP-3, the Supply System fully intends to complete the initial phase of the Readiness Reviews prior to restart of construction. Our FY-1986 budget contains planning and engineering manpower and expenses for our WNP-3 project, and planning manpower is in the WNP-1 budget since its Readiness Review will not commence until mid-1986. The budget is based on current knowledge and an understanding of the need to revise the budget as more knowledge is gained, as to the extent of manpower and expenses needed to accomplish the reviews.

Two important events will occur in the next six to eight months that have a bearing upon the future of the WNP-1 and WNP-3 projects. One is the Northwest Power Planning Council's latest revision of the Regional Energy Plan. This plan is due for public comment in mid 1985. The 1983 Energy Plan showed the two plants as available future energy resources. The Bonneville Power Administration has recently recommended that restart of construction be delayed for at least two more years. The Council must now consider these plants to be potential resources and is in the process of determining if the projects remain a cost effective future source of power, if that recommendation is carried out. The Supply System is working with the Council

Mr. J. B. Martin Regional Administrator U. S. NRC - Region V Readiness Reviews Page 2

and is providing cost data and addressing the issues of preservation, regulatory changes and other inputs used in economic modeling. The Supply System believes that no concern raised to date will change the 1983 Energy Plan and that the Council will continue to find that the projects are required sources of future power.

The other event is the BPA Electric Load Forecast which is scheduled to be published in final form in September, 1985. The results of these two studies, we believe, will only result in a better definition of the timing of the restart of construction. Even if the projects are further delayed the need for Readiness Reviews is still valid, since the knowledge that the projects are acceptable enhances our preservation programs.

G. C. Sorensen, Manager Regulatory Programs

Enclosures: 1) Near Term Activities

2) Readiness Review Schedule

cc: Mr. J. A. Adams, NESCO

Mr. W. L. Bryan, Washington Water Power Company

Mr. T. Kenyon, NRC - Bethesda, MD

Mr. G. W. Knighton, NRC - Bethesda, MD

Mr. J. R. Lewis, BPA

Mr. R. V. Myers, Pudget Sound Power & Light Company

Mr. B. K. Singh, NRC - Bethesda, MD

Mr. W. L. Weislogel, Pacific Power & Light Company Mr. B. D. Withers, Portland General Electric Company

Mr. N. S. Reynolds - Bishop, Liberman, Cook, Purcell and Reynolds

# ENCLOSURE 1 NEAR TERM ACTIVITIES

April 1985		Meetings
		<ul> <li>Preservation Program</li> <li>Engineering and Design Review</li> <li>Program Discussion</li> </ul>
May 1985	-	Meeting - Walnut Creek
		Subjects:
		<ul> <li>Discussion of Draft Preservation Program</li> <li>Initial Draft Engineering and Design Review</li> </ul>
June 1985	-	Satsop Meeting
		Present Final Preservation Plan
June 1985	-	Final Draft - Engineering and Design Review Program Submitted to NRC for Comment
July 1985		Final Preservation Plan Accepted by NRC
July 1985		Meeting
		Subjects:
		<ul> <li>Engineering and Design Program Submitted</li> <li>Construction and Records Review Program Discussion</li> </ul>
July 1985	-	Final Engineering and Design Review Program Accepted by NRC

#### ENCLOSURE 2 READINESS REVIEW SCHEDULE

# Construction and Record Review

There will be approximately 13 review packages in construction and records covering such subjects as:

- Reinforced Concrete
- Containment Building
- Structural Steel
- Mechanical Equipment Installation
- Piping Systems
- Piping Supports
- HVAC
- Cable Installation
- Cable Tray/Conduit Supports
- Instrumentation Tubing/Supports and Instruments
- Electrical Equipment Installation
- Miscellanous NDE, Coatings, Soils and Fasteners
- NSSS

July 1985 - January 1986 Planning

- Develop Sample Selection Criteria
- Gather Inspection Criteria
- Select Samples

January 1986 - May 1986 Assembly of Inspectors Inspections of Samples Begin

May 1986 Results of first inspection

package submitted to NRC, Region

August 1986 Results of the second inspection

package submitted to NRC, Region ٧.

Remainder of 1986 & 1987 Submittal of review packages at

approximately 1-1/2 to 2 month

intervals.

# Engineering and Design

There will be a series of reviews conducted covering a cross-section of design work that has been accomplished to date.

July 1985 First sample selected for design

review.

Review Begins

January 1986 Results of first review submitted to NRC, Region V.

Each additional package to be submitted to NRC, Region V at three month intervals.