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 RECIP. NAME: BUTLER, W.R. RECIPIENT AFFILIATION: Licensing Branch 2

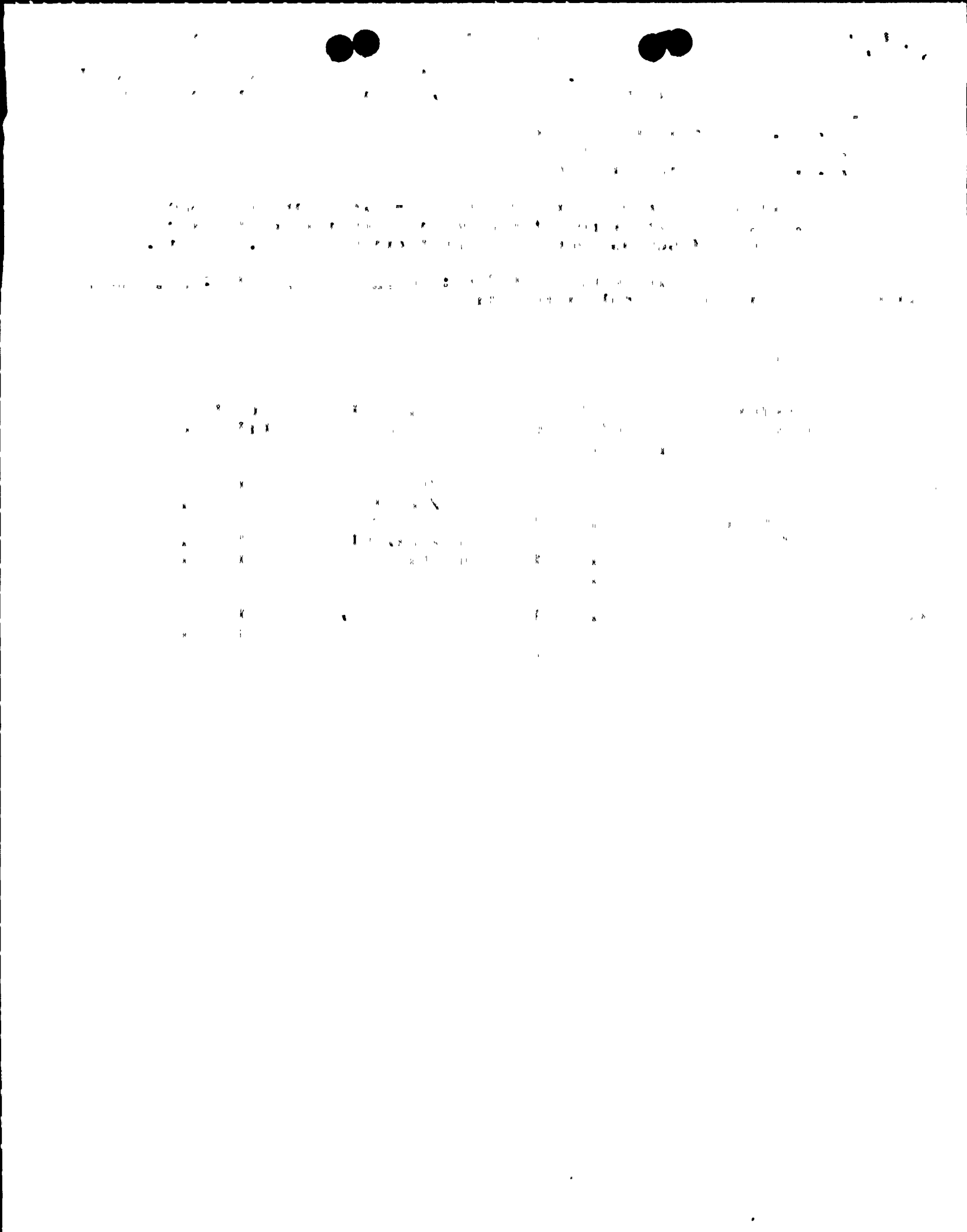
SUBJECT: Application for amend to License NPF-21, changing Tech Spec 3.8.4.2 to reflect recent changes in surveillance testing re. use of fuses as overcurrent protection devices. Fee paid.

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Washington Public Power Supply System

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

June 13, 1985

602-85-312

Docket No. 50-397

Director of Nuclear Reactor Regulation
Attention: Mr. W. R. Butler, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Butler:

Subject: NUCLEAR PLANT NO. 2
REQUEST FOR EMERGENCY TECHNICAL SPECIFICATION CHANGE TO
TECHNICAL SPECIFICATION 3.8.4.2, PRIMARY CONTAINMENT
PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, the Supply System hereby requests an emergency change to the WNP-2 Technical Specifications. Specifically, the Supply System is requesting a change to Technical Specification 3.8.4.2 to reflect recent changes in surveillance testing with regard to the use of fuses as overcurrent protection devices.

Testing for the first eighteen (18) month surveillances required by the WNP-2 Technical Specifications is now in progress. As a result, Surveillance Requirement 4.8.4.2.a.3 has prompted a review of the fuses listed in Table 3.8.4.2-1 (revised in Amendment 6 dated October 12, 1984 due to a change request from March 9, 1984). This review disclosed that as a result of certain plant modifications the fuses listed in the Table were replaced with larger fuses. Supply System design change procedures have ensured in all such cases that the new fuse sizing is within the design bases. A safety analysis has been performed on each change to confirm that the design change remains within the design margin of the plant.

The Supply System first became aware of the possible need for the requested technical specification change on June 6, 1985 and immediately commenced the internal review procedure which resulted in this request. As a result, the opportunity to submit a change request through the normal process contemplated by Section 50.91 is not available. The present outage will end on June 21. Consequently, a revision is required to the subject technical specification on an emergency basis in order to resume operation. The Supply System hereby

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W. R. Butler

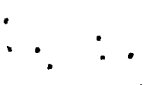
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requests an emergency change be granted in accordance with 10 CFR Parts 50.91(a)(5) and 2.106 to support WNP-2 starting up on June 21, 1985. This request is being sought promptly after the need for the technical specification modification was identified and the Supply System has not created this emergency to take advantage of Section 50.91(a)(5). It appears in the judgment of the Supply System that startup will be delayed unless the requested amendment is granted by June 21, 1985.

The physical nature of fuses brings into question the necessity of performance testing as presently required by the technical specifications. Surveillance testing is appropriate for active overcurrent protective devices (such as circuit breakers) as degradation due to corrosion or deformation of components or "sticking" of electrical components is a legitimate concern. Surveillance testing provides a reasonable assurance that these active components will respond appropriately. In contrast, a "calibrated" fuse is a passive component with known properties, built to prescribed physical dimensions in a sealed container. The basic design, simple construction, and passive operation make the fuse inherently reliable. With respect to containment penetration overcurrent protection, fuse failure is a conservative event. Wash-1400, October 1975 substantiates this position by determining the conservative probability of a single fuse failure to open to be 1×10^{-5} /demand. It should be noted that a single fuse in series with a mechanical breaker (probability to open of 4×10^{-4} /demand, reference: IEEE 500-1977) has a combined probability of failure to open of 4×10^{-9} /demand. Two fuses protecting a circuit provide a probability of failure to open of 1×10^{-10} /demand. Given the total number of circuits involved and the frequency of demands, the combined probability of occurrence for a failure to protect a containment penetration is so low as to preclude a necessity for routine fuse surveillance. Furthermore, the Supply System has not been able to identify an effective surveillance test that could be applied to fuses to verify the reliability of the fuse to protect primary containment penetrations from an overcurrent condition. Resistance measurement of fuses is not practical. Typical resistance readings of a 200 amp fuse is 370 - 400 micro-ohms. Small changes in the micro-ohm range are not reliably determined by field testing equipment and would not be indicative of a truly degraded condition. Additionally, any surveillance testing could involve removing and replacing fuses as would a replacement requirement. This could increase the risk of procedural errors. This situation, in the opinion of the Supply System, is more credible than a surveillance test identifying a fuse that could fail in a nonconservative manner. In summary, the Supply System considers that surveillance testing of fuses does not provide any added assurance of safe plant operation; performance of such unnecessary testing actually degrades plant operation and poses an additional burden on plant operations for no apparent increase in safety.



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With regard to the listing of fuse sizes in the technical specifications, it appears that the listing is not required by 10 CFR 50.36. Specifically, paragraph (4) Design Features:

"Design features to be included are those features of the facility such as materials of construction and geometric arrangements, which, if altered or modified, would have a significant effect on safety . . .".

The changing of a particular fuse utilized for containment overcurrent protection does not have a significant effect on plant safety. Design practices in effect at WNP-2, reviewed by the NRC and continually available for review, ensure that such changes remain within the design margin of the plant. This is precisely the situation presently being related. Fuse size changes were made and safety analyses performed to ensure that the fuses were sized large enough to supply the associated load, small enough to fail in the event of a fault in the load and small enough to ensure containment penetration protection. The changes were within design margin and did not constitute a change having a significant safety effect. These types of changes, changes within design margin not having significant safety relevance, are within the purview of the licensee and should not be governed by technical specifications. The listing of fuse sizes in the technical specifications requires the reporting of such non-safety significant events and involves the regulator into an area of plant activity not originally intended.

With these considerations, the Supply System requests the attached proposed technical specification removing fuse sizing and fuse surveillance testing be granted on an emergency basis to support startup on June 21, 1985 and commercial operation on July 1, 1985.

The Supply System has reviewed this change per 10 CFR 50.59 and determined that no unreviewed safety questions will result from this amendment. This technical specification change has been reviewed and approved by the WNP-2 Plant Operations Committee and the Supply System Corporate Nuclear Safety Review Board.

The Supply System has reviewed this change per 10 CFR 50.92 and determined that it does not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated because any change in overload current protection characteristics will be in the conservative direction. Previously evaluated events will remain bounding. Therefore no increases in probability or consequence is conceivable. Design change processes and audits of such processes will continue to ensure changes remain within design margins.
- 2) Create the possibility of a new or different kind of accident than previously evaluated because no new accident scenarios are credible. All changes remain within design margin and installed equipment remains the same.



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EMERGENCY RECH. SPEC. CHANGE TO TECH. SPEC. 3.8.4.2, PRIMARY CONTAINMENT
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- 3) Involve a significant reduction in a margin of safety because the sizing of fuses within the design margin does not encroach on the overall margin of safety and the deletion of fuse surveillance testing in all likelihood, will improve plant performance while removing an administrative burden of no benefit to safety.

This change does not involve a significant hazards consideration. Example (i) P 14870 of the Federal Register, April 6, 1983, is cited as justification. This change is administrative in that it changes the technical specification to achieve consistency within the intent of the technical specifications. This change more clearly defines the responsibility of the licensee and improves plant operation while removing an unnecessary requirement from the technical specifications.

The Supply System has evaluated this request in accordance with the criteria contained in 10 CFR 170.21 and has included a warrant for one hundred fifty dollars (\$150.00) as initial payment for this application for amendment under Facility Category A (Power Reactors). In accordance with 10 CFR 50.91, the State of Washington has been provided a copy of this letter.

Should you have any questions, please contact Mr. P. L. Powell, Manager, WNP-2 Licensing.

Very truly yours,



G. C. Sorensen, Manager
Regulatory Programs

PLP/tmh
Attachments

cc: JO Bradfute - NRC
WS Chin - BPA
C Eschels - EFSEC
JB Martin - NRC RV
E Revell - BPA
NS Reynolds - BLCP&R
AD Toth - NRC Site



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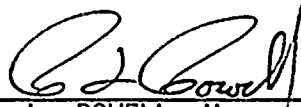
REQUEST FOR EMERGENCY TECHNICAL
SPECIFICATION CHANGE TO TECHNICAL
SPECIFICATION 3.8.4.2, PRIMARY
CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

STATE OF WASHINGTON)
COUNTY OF BENTON)

Subject: _____

I, P. L. POWELL, being duly sworn, subscribe to and say that I am acting for the Manager, Regulatory Programs, for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have full authority to execute this oath; that I have reviewed the foregoing; and that to the best of my knowledge, information and belief the statements made in it are true.

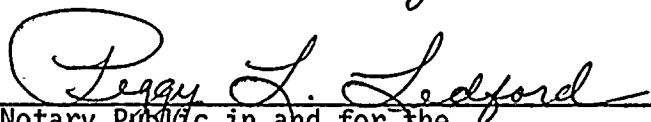
DATE June 13, 1985



P. L. POWELL, Manager
WNP-2 Licensing

On this day personally appeared before me P. L. POWELL to me known to be the individual who executed the foregoing instrument and acknowledged that he signed the same as his free act and deed for the uses and purposes therein mentioned.

GIVEN under my hand and seal this 13 day of June, 1985.



Notary Public in and for the
State of Washington

Residing at Richland, wa
Benton Co.



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