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 RECIPIENT AFFILIATION  
 RECIP. NAME      Document Control Branch (Document Control Desk)

SUBJECT: Application for amend to License NPF-21, revising Tech Spec Table 3.8.4.2-1.

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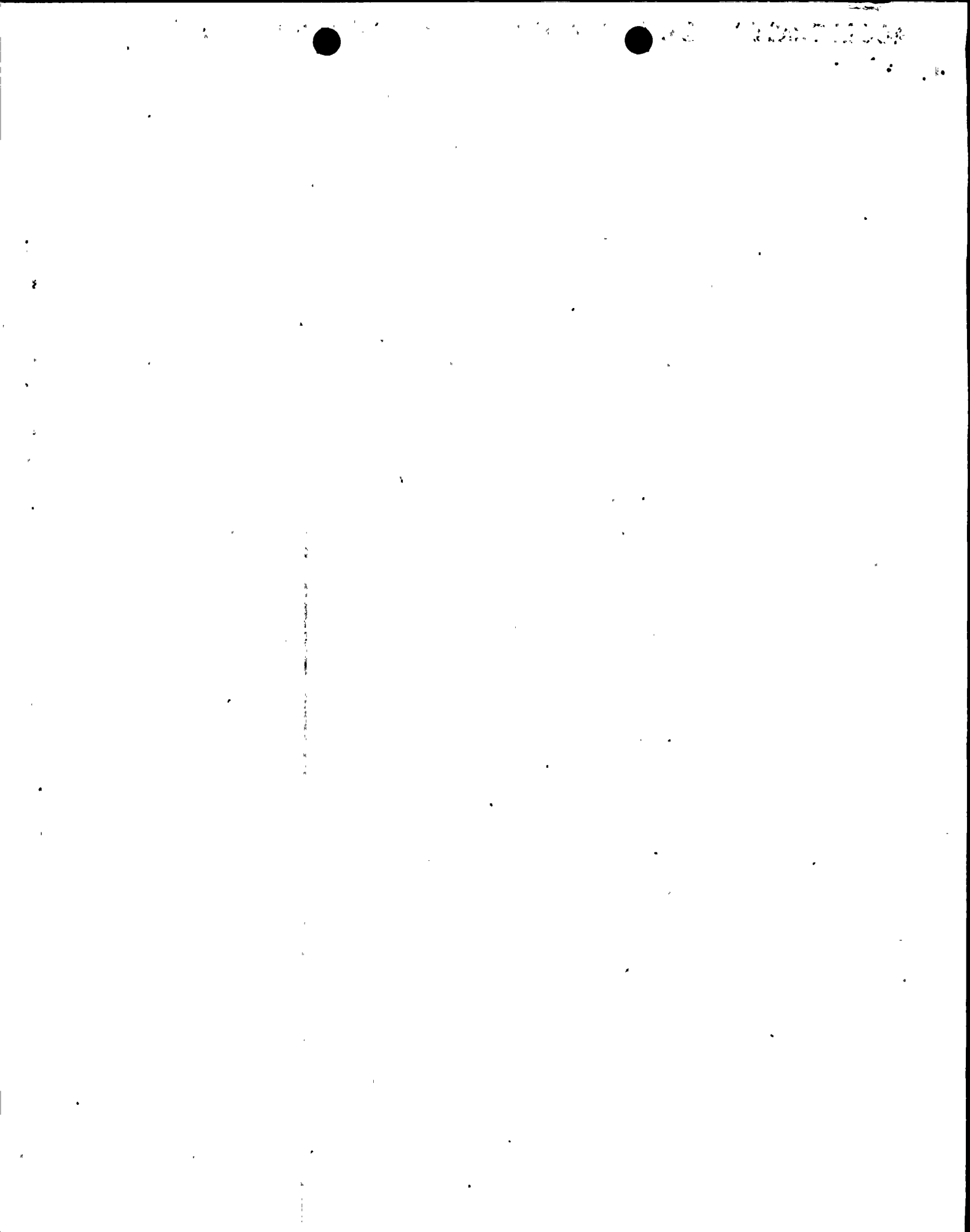
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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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August 13, 1989  
G02-89-136

Docket No. 50-397

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
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Washington, D.C. 20555

Gentlemen:

Subject: NUCLEAR PLANT NO. 2  
LICENSE NO. NPF-21, REQUEST FOR AMENDMENT TO TECHNICAL  
SPECIFICATION TABLE 3.8.4.2-1 PRIMARY CONTAINMENT  
PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE RELAY DEVICES

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90, 2.101, and 50.91(a)(5), the Supply System hereby submits a request for amendment to the WNP-2 Technical Specifications on an emergency basis as provided for in the regulations. Specifically, the Supply System is requesting that Table 3.8.4.2-1 be revised as attached to modify the backup containment penetration overcurrent protection provided the listed components.

The need for this change was identified on August 11, 1989 as a result of a review of the plant event that occurred on August 8, 1989. In that event, a feeder breaker to the non-safety related motor control center (MCC) MC-8A-2C tripped as a result of a fault on a hoist coincident with the clearing of the hoist fuse. This indicated a potential coordination problem between the hoist feeder (a fuse disconnect) and load motor control center (MCC) feeder (a molded case breaker). Subsequent review identified a general concern that a fault on loads or on associated cables routed in non-seismic raceways, supplied by some safety-related motor control centers could result in a loss of the entire 1E MCC. Some existing safety-related control center feeders have instantaneous short circuit protection that does not allow for coordination with downstream fuses for branch circuit faults.

Lacking evidence of proper coordination between all loads and lacking evidence of adequate electrical isolation between 1E and non-1E systems, the plant was shutdown on August 11, 1989 under the requirement of Technical Specification Section 3.0.3.

The immediate resolution of the identified concern to allow plant startup is to place jumpers around five breakers used to subfeed a MCC section from another MCC (i.e., MCC 7A-A, 7B-A, 7B-B, 8A-A and 8B-B). The primary design functions

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U.S. Nuclear Regulatory Commission

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REQUEST FOR AMENDMENT TO TECHNICAL SPECIFICATION TABLE 3.8.4.2-1  
PRIMARY CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE RELAY DEVICES

of providing bus and cable protection are provided by existing backup protection. Fault or short circuit protection will be provided by the primary motor control center feeder circuit breaker located on the unit substation. Overload protection will be ensured by the individual load fuses since the sum of the fuses do not exceed the ampacity of the cable or bus. Note that the safety function of these five breakers is passive in that they must not inadvertently clear. They have no safety function to open.

While this modification is technically adequate to ensure operability of the safety related MCC's, a design effort will continue for long term improvement relative to these issues.

A jumper may not be used for MCC 8B-A as it provides the backup containment penetration protection required by Regulatory Guide 1.63 for those components listed in Technical Specification Table 3.8.4.2-1 (Section b). For this situation, the breaker will be functionally replaced with a 100 Ampere fuse. The Technical Specification table indicates protection is provided by a 125 Ampere circuit breaker. With this modification, a change to the Technical Specification is required before the system can be declared operable.

As discussed in the attachment, the Supply System considers that this proposed amendment does not involve a significant hazards consideration, nor is there a potential for either a significant change in the types of effluents or significant increase in the amount of any effluents that may be released offsite, nor does it involve a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22(c)(9) and therefore, per 10CFR51.22(b), an environmental assessment of the change is not required.

In summary, based on the assertion that no significant hazard is created by the proposed amendment and that the proposed change in the backup protection provided the containment penetration provides reliable protection against failure of the penetration's containment function, approval of the proposed amendment does not represent an undue risk to the health and safety of the public. Additionally, absent this amendment, the WNP-2 Plant will be required to remain in a cold shutdown condition.

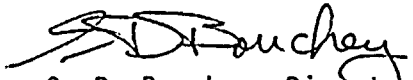
August 13, 1989

REQUEST FOR AMENDMENT TO TECHNICAL SPECIFICATION TABLE 3.8.4.2-1  
PRIMARY CONTAINMENT PENETRATION CONDUCTOR  
OVERCURRENT PROTECTIVE RELAY DEVICES

As the above discussed problem did not become apparent until the August 8, 1989 trip of MC-8A-2C, it was not possible for the Supply System to anticipate the need for the described modification that would have allowed for submittal of this request in a more timely manner.

This amendment request has been reviewed and approved by the WNP-2 Plant Operating Committee (POC). Confirmation of review and approval of the Supply System Corporate Nuclear Safety Review Board (CNSRB) will be provided by 11:00 a.m. EST August 14, 1989. In accordance with 10CFR50.91, the State of Washington has been provided a copy of this letter.

Very truly yours,

  
G. D. Bouchey, Director  
Licensing & Assurance

AGH/arg

Attachment: As stated.

cc: J. B. Martin - NRC RV  
N. S. Reynolds - BCP&R  
R. B. Samworth - NRC  
D. L. Williams - BPA/399  
C. Eschels - EFSEC  
NRC Site Inspector - 901A

STATE OF WASHINGTON )  
COUNTY OF BENTON )

Subject: REQUEST FOR AMENDMENT TO  
TECHNICAL SPECIFICATION TABLE  
3.8.4.2-1 PRIMARY CONTAINMENT  
PENETRATION CONDUCTOR OVERCURRENT  
PROTECTIVE RELAY DEVICES

I, G. D. Bouchey, being duly sworn, subscribe to and say that I am the Director, Licensing & Assurance, 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 August 13, 1989

G. D. Bouchey  
G. D. Bouchey, Director  
Licensing & Assurance

On this day personally appeared before me G. D. Bouchey, 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 herein mentioned.

GIVEN under my hand and seal this 13<sup>th</sup> day of August 1989.

Peresa Z. Robertson  
Notary Public in and for the  
STATE OF WASHINGTON

Residing at Richland, WA  
My commission expires 7/14/91







This attachment addresses the safety and hazards considerations required to support the enclosed Technical Specification change. This change replaces the 125 Ampere circuit breaker backup containment penetration protection for certain components listed in Technical Specification Table 3.8.4.2-1 with 100 Ampere fuses.

The required analysis specifically must address the three questions identified below:

1. Does it involve a significant increase in the probability or the consequences of an accident previously evaluated?
2. Does it create the possibility of a new or different kind of accident from any accident previously evaluated?
3. Does the change involve a significant reduction in a margin of safety?

The existing circuit breaker for the feeder from MC-8B to MC-8B-A is a 125 Ampere breaker with time delay and instantaneous trip characteristics. This breaker is not capable of providing selective coordinated tripping with the branch circuit fault protective devices on the motor control center which it feeds for any branch circuit fault which exceeds the instantaneous trip setting. The proposed Technical Specification change of replacing the circuit breaker with 100 Ampere current limiting fuses will provide coordinated fault clearing for faults beyond the subfed motor control center branch circuit fuse for any magnitude of fault current. This has been ensured since this 100 Ampere fuse is at least two times larger than the largest load fuses as required by the fuse manufacturer to ensure coordination.

The second function of this particular breaker was to provide backup protection for the eight penetration circuits which are supplied power from MC-8B-A. The smallest circuit penetration protected consists of two #10 AWG penetrations in parallel. The time-current melting characteristics of the 100 Ampere fuse show that it will operate before the time-current limit on the penetration wire is reached.

The Supply System has evaluated this change with respect to 10CFR50.59 and 50.92 and determined that this change does not represent an unreviewed safety question or significant hazard because:

1. It does not involve a significant increase in the probability or the consequences of an accident previously evaluated. The safety function of the breaker was to provide short circuit and overload protection of downstream equipment including containment penetrations. The proposed 100 Ampere fuse has similar electrical characteristics ( $I^2t$ ) and is dual element providing short circuit and overload protection. The reduction in rating from 125 to 100 Amperes has been reviewed to ensure that the fuse

will not trip due to normal load currents. Thus, both protection against short circuit and overload are not significantly changed. Also, protection against spurious failure is not significantly changed.

2. It does not create the possibility of a new or different kind of accident from any previously evaluated as the backup protection provided the penetrations is equivalent to that provided in the original design for the reason stated in the response to Question No. 1.
3. It does not involve a significant reduction in a margin of safety. The fuse provides the same short circuit and overload protection as does the circuit breaker. As such, the margin between current interruption and containment penetration failure is not significantly changed.