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SORENSEN, G.C. Washington Public Power Supply System
RECIP. NAME RECIPIENT AFFILIATION
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SUBJECT: Application for amend to License NPF-21, changing TS
3.8.1.1.b.2 & 3.8.1.2.b re DG fuel storage sys capacities,
in response to EDSFI Rept 50-397/92-01.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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April 1, 1993
G02-93-077
Docket No. 50-397

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

Gentlemen:

Subject: **WNP-2, OPERATING LICENSE NPF-21
REQUEST FOR AMENDMENT TO TECHNICAL SPECIFICATIONS
3.8.1.1.b.2 AND 3.8.1.2.b DIESEL GENERATOR FUEL
STORAGE SYSTEM CAPACITY**

In accordance with the Code of Federal Regulations, Title 10 Parts 50.90 and 2.101, the Supply System hereby submits a request for amendment to the WNP-2 Technical Specifications. It is requested that the diesel generator (DG) fuel storage capacities for DG-1 and 2 be changed, as indicated on the attachment, to reflect required capacities based on recent testing results and changes in the calculation input assumptions for fuel heating value, the temperature of the stored fuel, intake air temperature and DG room temperature.

In response to the NRC Electrical Distribution System Functional Inspection conducted at WNP-2 (Inspection Report 50-397/92-01), the Supply System performed DG fuel consumption testing and updated fuel storage requirement calculations to ensure that adequate fuel storage was available onsite to meet maximum post loss of coolant accident (LOCA) fuel consumption requirements for seven days. The DG fuel storage capacity requirements for all three DGs were evaluated. Using new methodology that is in line with current industry standards, vendor data, service data, and qualification testing, the Technical Specification requirements for 54,400 gallons for DGs-1 and 2 at a continuous full electrical design rating were found to be 1,852 gallons short of the quantity required to satisfy the seven day requirement. The original calculation had not considered the lowest heating value for the fuel as allowed by the Technical Specifications and the FSAR, the temperature of the stored fuel, intake air temperature, or DG room temperature. Because of the shortfall, administrative controls were initiated to increase the required storage by 2,000 gallons. It was also decided to verify the consumption rate by testing, which was completed at the conclusion of R-7 (July 1992). To apply the test results to

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**REQUEST FOR AMEND. TO TS 3.8.1.1.b.2 AND
3.8.1.2.b DG FUEL STORAGE SYSTEM CAPACITY**

the calculations, the test uncertainties in measuring performance parameters were combined to provide a conservative consumption rate. The fuel consumption rates determined by testing were smaller for DG-1 and greater for DG-2 than that used in the previous calculations. However, the increase in fuel consumption for DG-2 did not challenge the previously set administrative limit. The same testing and evaluation was performed for DG-3 with the conclusion that no changes were necessary to the fuel storage requirement for DG-3.

Normal operating practice is such that the quantity of fuel in the fuel storage tanks has been maintained at or greater than 55,000 gallons since the need to increase and maintain a greater volume was recognized.

The requested value, 55,500 gallons in the DG-1 and 2 storage tanks, provides margin between the calculated value and the Technical Specification value to accommodate the results of future revisions to the calculation.

The Supply System has evaluated this change in the quantity of fuel maintained in the fuel storage tanks for DG-1 and 2 and determined that it does not represent a significant hazards consideration because it does not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated. The emergency diesels and their supporting systems are transient and accident mitigating features and, as such, cannot cause an accident. The mitigating feature of the emergency diesels is not changed in that the licensing basis requirement to provide for a seven day fuel supply without replenishment is unchanged. As discussed above, the original calculation, upon which the licensing basis was based, was revised to be in line with industry standards and to use more conservative values for fuel storage temperature, DG room temperature, fuel heating value, and air intake temperature. In addition, testing was utilized to derive conservative consumption rates. In this manner, these changes are conservative and preserve the original licensing basis requirements. Thus, this change preserves the assumptions in the safety analysis and does not represent an increase in the probability or consequences of an accident previously evaluated.
- 2) Create the possibility of a new or different kind of accident from any accident previously evaluated. The requested Technical Specification change does not represent a change in modes of operation or require physical modification to the plant. The requested Technical Specification change maintains the licensing basis for the plant as discussed in response to question 1. Hence, no new or different kind of accident is possible as a result of implementing this change.

**REQUEST FOR AMEND. TO TS 3.8.1.1.b.2 AND
3.8.1.2.b DG FUEL STORAGE SYSTEM CAPACITY**

- 3) Involve a significant reduction in a margin of safety. As discussed above, the requested Technical Specification change maintains the requirement for seven day fuel inventory. Hence, it does not impact a margin of safety but ensures that the originally intended margin of safety is maintained. Therefore, no margin of safety is adversely impacted by this change. In addition, the method of determining the fuel consumption rate is consistent with the licensing basis.

The Supply System concludes that this change does not involve a significant hazards consideration, nor is there a potential for a significant change in the types or significant increase in the amount of any effluents that may be released offsite, nor does the change 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 10 CFR 51.22(C)(9) and therefore, in accordance with 10 CFR 51.22(b), an environmental assessment of this change is not required.

This Technical Specification change request has been reviewed and approved by the WNP-2 Plant Operations Committee and the Supply System Corporate Nuclear Safety Review Board. In accordance with 10 CFR 50.91, the State of Washington has been provided a copy of this letter.

Sincerely,



G. C. Sorensen, Manager
Regulatory Programs (Mail Drop 280)

PLP/bk

Attachments

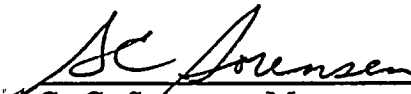
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STATE OF WASHINGTON)
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Subject: Request for Amend to TS
3.8.1.1.b.2 & 3.8.1.2.b DG
Fuel Storage System Capacity

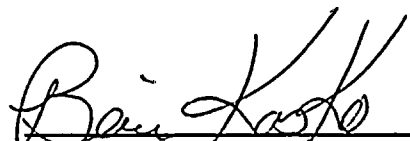
I, G. C. SORENSEN, being duly sworn, subscribe to and say that I am the Manager, Regulatory Programs for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have the full authority to execute this oath; that I have reviewed the foregoing; and that to the best of my knowledge, information,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

DATE 1 April, 1993


G. C. Sorensen, Manager
Regulatory Programs

On this date personally appeared before me G. C. SORENSEN, 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 1 day of April, 1993.


Notary Public in and for the
STATE OF WASHINGTON

Residing at Kennewick, Washington

My Commission Expires April 28, 1994

