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 SORENSEN, G. C. Washington Public Power Supply System
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Application for amend to License NPF-21, revising Tech Specs
 for trip setpoint for Item 1.d, "Main Steam Line Tunnel
 Temp-High" of Table 3.3.2-2, Isolation Actuation
 Instrumentation" to indicate max setpoint value. Fee paid.

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Washington Public Power Supply System

3000 George Washington Way P.O. Box 968 Richland, Washington 99352-0968 (509)372-5000

September 1, 1987
G02-87-240

Docket No. 50-397

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

Gentlemen:

Subject: NUCLEAR PLANT NO. 2
OPERATING LICENSE NPF-21
REQUEST FOR TECHNICAL SPECIFICATION AMENDMENT
(TABLE 3.3.2-2)

Reference: Letter, G02-85-238, G. C. Sorensen (SS) to A. Schwencer
(NRC), "Setpoint Methodology for WNP-2", dated May 6,
1985

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. Specifically, the Supply System is requesting that the trip setpoint for item 1.d, Main Steam Line Tunnel Temperature-High of Table 3.3.2-2, Isolation Actuation Instrumentation Setpoints, be changed (as attached) to indicate the maximum value for the Trip Setpoint value instead of the presently listed value.

At the time of issuance of the WNP-2 Operating License and Technical Specifications, the originally submitted value provided for this parameter ($\leq 150^{\circ}\text{F}$) was based on the methodology described in the Reference which arrived at a Trip Setpoint value. The methodology ensured that an actual trip setpoint within a specified band would not cause the Allowable Value to be exceeded. The initial Technical Specification recognized the potential inaccuracies in the methods available to determine peak temperatures and the value was not changed due to the belief that adequate margin existed.

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Page two

Request for Technical Specification Amendment (Table 3.3.2-2)

Treatment of the trip setpoint as a limit causes us to readdress the values presented in the Technical Specifications. This current interpretation may require the recalculation of all trip setpoint values; however, this amendment will only address the setpoint of recent concern, Main Steam Line High Temperature. We will submit the remainder at a later date. We request that this change request, along with the subsequent request for the remainder of the trip setpoints, be handled jointly if time and other conditions permit.

The calculation performed to establish the leak detection high ambient temperatures analytical limit was based upon an equivalent 25 gpm condensate leak which resulted in 185°F tunnel temperature. The allowable value was an adjustment applied to the analytical limit accounting for 7 degrees of loop calibration uncertainty/inaccuracy and 6 degrees of additional margin combined by the square root of the sum of the squares method as described in Exhibit III of the reference letter. This would have produced an allowable value of 175.8°F but was conservatively reduced to 170°F as the submitted Technical Specification Allowable Value. A trip setpoint limit was arrived at by further reducing the allowable value for instrument drift of 6 degrees yielding 164°F. The 150°F trip setpoint was arrived at by consideration of long term concrete degradation effects not attributable to instrumentation constraints.

In an attempt to define a limit which will prevent violation of the Allowable Value and provide an instrumentation based operating margin, the value of 164 degrees is requested. This value accounts for drift, total loop inaccuracy and calibration error providing a 21 degree margin to the analytical limit. The 6 degree margin to the Allowable Value accounts for the maximum expected instrumentation drift between required calibration frequencies of 18 months. Additionally, this change puts our setpoint in concurrence with other plants licensed after us such as Susquehanna and Fermi whose trip setpoint differs from the Allowable Value by only the instrument drift margin of 7 and 6 degrees, respectively.



The current trend recorder provides a record of higher than normal ambient temperatures. Equipment Qualification concerns are currently being addressed, particularly in the areas of MSIV solenoid pilot valves, motor operators and cabling. The most sensitive equipment is the solenoid pilot valve, which currently requires replacement on a regularly scheduled basis. This schedule is affected by the time at temperature profile which will continue to be monitored with replacement as required. Similarly, the concrete will begin to deteriorate over a long period of time at temperatures above 150°F. Accelerated degradation can occur above 200°F. The minor temperature excursion above the 150°F threshold limit, coupled with relatively short time periods of exposure, will have no measurable effect on the concrete.

The Supply System has previously experienced higher than anticipated Main Steam tunnel ambient temperatures and has attempted to solve the problem by improving area cooler performance and reducing heat loads.

The Supply System has evaluated this request per 10CFR50.92 and determined that it does not involve a significant hazards consideration because it does not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated because the new Trip Setpoint continues to compensate for drift so that the allowable value is not exceeded. The object of monitoring this parameter is to ensure that a high temperature, possibly indicative of a steam leak in the tunnel, provides mitigating action, i.e., a reactor scram. The Technical Specification allowable value, 170°F, is based on recognizing just such a steam leak and providing the mitigating action. The allowable value is not being changed and since the requested change does compensate for drift such that the allowable value will not be exceeded, there is no change in the probability of the accident, and the consequences, which are based on action at the allowable value, are not changed as a result of initiation at the requested trip setpoint.

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Page Four

Request for Technical Specification Amendment (Table 3.3.2-2)

- 2) Create the possibility of a new or different kind of accident than previously evaluated because margins to safety limits are still based on not exceeding the allowable value. It should be noted that the requested change does not create adverse short term effects on equipment due to slightly elevated temperatures in the steam tunnel. Any effects are long term and can be accounted for in the management of the WNP-2 equipment qualification program.
- 3) Involve a significant reduction in a margin of safety because as previously stated the allowable value will not be exceeded. Hence, the margin of safety is not reduced.

The Supply System has reviewed this change per 10CFR50.59, 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 Operation Committee (POC) and the Supply System Corporate Nuclear Safety Review Board (CNSRB).

In accordance with 10CFR170.21, an application fee of One hundred fifty dollars (\$150.00) accompanies this request. In accordance with 10CFR50.91, 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/RJB/tmh
Attachments

cc: C Eschels - EFSEC
G Knighton - NRC
JB Martin - NRC RV
NS Reynolds - BCP&R
RB Samworth - NRC
DL Williams - BPA
NRC Site Inspector - 901A




Request for Tech. Spec.
Amendment (Table 3.3.2-2)

STATE OF WASHINGTON)
)
COUNTY OF BENTON)

Subject: _____

I, P. L. POWELL, being dully 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 September 1, 1987



P. L. POWELL, Acting Manager
Regulatory Programs

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 herein mentioned.

GIVEN under my hand and seal this 1st day of September, 1987.



Traci M. Hardy
Notary Public in and for the
State of Washington

Residing at Kennewick, WA

Expires Feb. 4, 1990

