

Washington Public Power Supply System

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

Docket No. 50-460

August 10, 1984

G01-84-0212

Director of Nuclear Reactor Regulation
Attention: Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: NUCLEAR PROJECT NO. 1,
SUPPLEMENTAL RESPONSE TO GENERIC LETTER 83-28

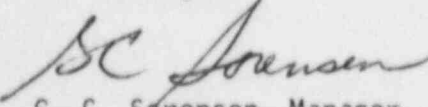
References: 1) Letter, GC Sorensen, Supply System to Elinor G. Adensam, NRC,
"Response to Generic Letter 83-28, Salem ATWS Events,"
G01-84-0094, dated March 30, 1984

2) Letter, J. Ted Enos, AP&L, to Darrell G. Eisenhut, NRC, "B&W
Owner's Group - Supplemental Response to GL 83-28," dated July
16, 1984.

Reference 1 transmitted the WNP-1 response to Generic Letter 83-28. Portions
of that response made reference to B&W Owner's Group activities.

In the WNP-1 response to Item 4.1, it was stated that because the reactor trip
breakers (RTBs) had not been procured for WNP-1, no response could be provided.
Because of significant information which has been developed and programs which
have been implemented, the B&W Owner's Group has developed a revised response
to Item 4.1. We believe this response is appropriate for WNP-1 and we are
therefore amending our response to Item 4.1 to include this information. This
revised response, which is attached, was transmitted to the NRC with reference
2.

Reference 2 also transmitted a revised reply to Item 4.2. However, because the
RTBs have not been procured for WNP-1, this revision to Item 4.2 is not
appropriate to WNP-1 and our reply to this item, transmitted with reference 1,
is unchanged.


G. C. Sorensen, Manager
Regulatory Programs (340)

GCS:AGH:pp

Attachment

cc: T. Kenyon, NRC (M.D. 116) w/att
N.P. Kadambi, NRC w/att
D.G. Eisenhut, NRC w/att
N.S. Reynolds, BLCP&R w/att

8408170031 840810
PDR ADOCK 05000460
A PDR

A055
11

STATE OF WASHINGTON)
)
County of Benton)

Subject: WNP-1, Supplemental Response
to Generic Letter 83-28

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 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 9 August, 1984

G. C. Sorensen
G. C. Sorensen, Manager
Regulatory Programs

On this day personally appeared before me G. C. SORENSEN to me known to be the individual who executed the foregoing instrument and acknowledge 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 9th day of August, 1984.

Kathryn H. DuBois
Notary Public in and for the
State of Washington

Residing at Richland, wa
March 1988

ATTACHMENT 1

ITEM 4.1 - RESPONSE

Our previous response to this item indicated that no vendor modifications had been recommended. Subsequent to that response, it was identified that certain RTBs manufactured during the period November 1976 through March 1977 were manufactured with a defect. It has now been verified that all effected RTBs were corrected either in the field or by B&W. B&W incorporated (at that time) steps in its receipt inspection procedure to identify this manufacturing defect if it were to recur.

During a meeting with General Electric (GE) in February 1984, the B&W Owners Group (BWOG) first learned of new information and recommendations from GE with regard to GE AK Reactor Trip Breakers (RTBs).

At this time GE suggested that use of WD 40 to rejuvenate the Lubriko lubrication in the trip shaft bearings was having an accelerated effect on the lubrication aging (hardening) process. GE further indicated that they were conducting extensive testing of new lubricants for use as a replacement to the Lubriko and that preliminary results indicated Mobil 28 was an excellent replacement. GE recommended to the Owners that WD 40 only be used for rejuvenation when trip shaft torque approaches unacceptable limits and that consideration be given to replacing the bearings with bearings lubricated with Mobil 28 lubricant. This replacement could be accomplished by either changing the complete front frame of the breaker or by replacement of the bearings themselves.

We discussed this information with the NRC staff in March 1984, and further documentation was provided in the subsequent amended Service Advisory issued by GE later in the month.

Following this meeting, the BWOG (through B&W) provided a letter to GE indicating an "intent to purchase" sufficient new front frames for the B&W plants.

Although not specifically recommended by the GE Service Advisory or Generic Letter 83-28, the BWOG began development (immediately after meeting with GE) of a program to evaluate longer term improvements in breaker performance.

The RTB Long Term Improvement Program was discussed with the NRC during our April 17, 1984, meeting and preliminary results presented in our June 21, 1984, meeting. This program is intended to evaluate a broad scope of alternatives to improve RTB reliability.

Two categories of fixes are being evaluated:

- Modification of Existing GE AK Breakers; and

Replacement of GE AK Breakers with a Different Device.

After the list of alternatives was developed, evaluation criteria were established to be used in the selection process and an evaluation conducted using the Kepner-Tregoe Decision Analysis method. Two types of criteria are being used. The first set is absolute requirements all of which an alternative must meet to be further considered as acceptable. The second set of criteria is desirables or performance parameters which are desired to be optimized. The desirables are "weighted" according to their relative importance and each alternative rated against all of the desirables. The result is a numeric rating of the various alternatives which indicates the alternative(s) that most nearly meet all objectives.

The first round of evaluation has now been completed which indicates that alternatives for modification of the existing GE AK RTBs are superior alternatives to those which involve replacement of the RTBs with a new/different device. This is strongly based on the extremely positive results of GE's lubrication testing demonstrating the stable nature of Mobil 28 lubricant, GE's agreement to continue making parts available for the AK RTBs past the year 2000, and the increased trip margin from the Undervoltage device that results with the Mobil 28 lubricated bearings. As such, further evaluation is concentrating on only "modification" alternatives.

As it now seems clear that the final long term improvement will use the existing GE AK RTBs for operating and non operating plants, the Owners Group has recommended to the individual utilities that bearings lubricated with Lubriko be replaced (as expeditiously as possible) with bearings lubricated with Mobil 28.

A final recommended fix(es) is expected to be available in September for presentation to and approval by the entire Owners Group. It is anticipated that the selected alternative(s) can be implemented (for the most part) by the next refueling outages or earlier. We will be requesting a meeting with the NRC (in the September time frame) to discuss the final results of the evaluation program.