

## Washington Public Power Supply System

Box 1223 Elma, Washington 98541 (206) 482-4428

Docket No. 50-508

April 20, 1983  
G03-83-333

Director of Nuclear Reactor Regulation  
ATTN: Mr. G. W. Knighton, Chief  
Licensing Branch No. 3  
Division of Licensing  
US Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: NUCLEAR PROJECT 3  
RESPONSES TO NRC ACCEPTANCE  
REVIEW QUESTIONS (March 1983)

References: a) Letter D. G. Eisenhut to  
R. L. Ferguson, dated 08/20/82  
b) Letter #G03-82-830  
G. D. Bouchey to  
H. R. Denton, date 08/20/82  
c) Letter #G03-82-1085  
G. D. Bouchey to  
J. D. Kerrigan, dated 11/22/82

Reference a) transmitted a set of questions generated during the NRC's acceptance review of the WNP-3 Operating License Application (reference b). Reference c) represents the initial Supply System response to these questions and provided a schedule for those cases where our evaluations were not yet complete.

This letter transmits those responses scheduled to be provided for NRC review in March. In those cases where it is considered necessary or desirable to amend the FSAR due to our responses, we have provided marked up FSAR pages which show the changes which will be included in a subsequent amendment.

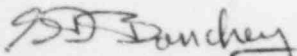
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Mr. G. W. Knighton  
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RESPONSES TO NRC ACCEPTANCE REVIEW QUESTIONS

If you require additional information or clarification, the Supply System point of contact for this matter is Mr. K. W. Cook, Licensing Project Manager (206/482-4428 ext. 5436).

Sincerely,



G. D. Bouchey, Manager  
Nuclear Safety and Regulatory Programs

AJM/ss

Attachments: 1. NRC Question 270.1  
2. NRC Question 271.1  
3. NRC Question 281.1

cc: D. J. Chin - Ebasco NYO  
N. S. Reynolds - D&L  
J. A. Adams - NESCO  
D. Smithpeter - BPA  
A. Vietti - NRC  
A. A. Tuzes - Comb. Engr.  
Ebasco - Elma  
WNP-3 Files - Richland

NRC QUESTION NO. 270.1 (3.11.1)

Tables 3.11-1 and 3.11-2 are not complete. Provide the missing information or a schedule for providing it.

RESPONSE

Tables 3.11-1 and 3.11-2 will be revised quarterly to incorporate information as it becomes available. An overall completion date is scheduled for June 1984.

Attached is the information for March, 1983.

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ANO. 8305100097

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## REASON

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NRC QUESTION NO. 271.1 (3.10)

Table 3.10-1 is not complete. Provide the missing information or a schedule for providing it.

RESPONSE

Table 3.10-1 will be revised quarterly to incorporate information as it becomes available. An overall completion date is scheduled for February 1984.

Attached is the information for March, 1983.

WNP-3  
FSAR

Q 271.1

TABLE 3.10-1

NON-NSSS SEISMIC CATEGORY 1  
INSTRUMENTATION AND ELECTRICAL EQUIPMENT  
QUALIFICATION

EQUIPMENT	MANUFACTURER	LOCATION	FUNCTION	METHOD OF QUALIFICATION			SUMMARY OF RESULTS/COMMENTS
				QUALIFICATION METHOD	FREQUENCY RANGE (HZ)	EXCITATION METHOD	
4.16 kV Swgr A3-SA 4.16 kV Swgr B3-SB	Westinghouse Westinghouse	RAB EL 390'-0" RAB EL 390'-0"	Supply of all 4160V ac power	Test & Analysis	1-33 Hz at 1 octave per minute	Simultaneous horizontal and vertical	
13.8 kV Swgr RCP-SA 13.8 kV Swgr RCP-SB	Westinghouse Westinghouse	RAB EL 390'-0" RAB EL 390'-0"	Supply ac power reactor coolant pumps	Test & Analysis	1-33 Hz at 1 octave per minute	Simultaneous horizontal and vertical	
480V Pwr Ctr A31-SA	Westinghouse	RAB EL 390'-0"	Supply of all 480V ac pwr	Test & Analysis	1-33 Hz	Simultaneous horizontal and vertical	
A32-SA	Westinghouse	RAB EL 390'-0"	Supply of all 480V ac pwr	Test & Analysis	1-33 Hz	Simultaneous horizontal and vertical	
A33-SA	Westinghouse	Component Cool. Dry Cool Twr	Supply ac pwr to dry cool. twr	Test & Analysis	1-33 Hz	Simultaneous horizontal and vertical	
B31-SB	Westinghouse	RAB EL 390'-0"	Supply of all 480V ac pwr	Test & Analysis	1-33 Hz	Simultaneous horizontal and vertical	
B32-SB	Westinghouse	RAB EL 390'-0"	Supply of all 480V ac pwr	Test & Analysis	1-33 Hz	Simultaneous horizontal and vertical	
B33-SB	Westinghouse	Component Cool. Dry Cool Twr	Supply ac pwr to dry cool twr	Test & Analysis	1-33 Hz	Simultaneous horizontal and vertical	
480V Motor Control Centers	GTE Sylvania	RAB EL 390'-0" (See Note Below)	Supply 480V & 208Y/120V ac pwr to ESF equip		1-40 Hz at 1 octave per minute	Biaxial	Qualified; Report No. GIE Bulletin 6200 Type SC Motor Control Centers

NOTE:

1. MCC's A311-SA, A312-SA, A321-SA, A322-SA are located in Essential Switchgear Room A
2. MCC A323-SA is located in Emergency Diesel Generator Control Room A
3. MCC's B311-SB, B312-SB, B321-SB, B322-SB are located in Essential Switchgear Room B
4. MCC B323-SB is located in Emergency Diesel Generator Control Room B

NRC QUESTION NO. 281.1 (6.1.1.2)

For all postulated design basis accidents involving release of water into the containment building, estimate the time-history of the pH of the aqueous phase in each drainage area of the building. Identify and quantify all soluble acids and bases within the containment.

RESPONSE

The time-history of the pH of the aqueous phase in the containment sump for postulated design basis accidents involving release of water into the Containment Building is discussed in Section 6.5.2.

Please note that we are in the process of determining the set points of the NaOH injection controls and as a result the pH transient curves will be revised.

Collection of the spray water is directed toward the containment sump. The only dead volume in the containment, where the water will be trapped, is the reactor cavity. The reactor cavity will be filled slowly over a long period of time from sprays leaking through the gap of the pool ring and the RV flange. Therefore the value of the pH in the cavity will be the same as the containment sprays. Detailed description of the containment sprays as well as the containment sump pH transients are provided in Section 6.5.2.

The sources and quantities of all soluble acids and bases (inside and outside the containment) used for the containment spray sump pH calculations are as follows:

<u>System/Component</u>	<u>Volume, Gallons</u>	<u>Concentration, ppm boron</u>
Reactor Coolant System (including Pressurizer)	100,000	900
Safety Injection Tanks	57,600	4,000-4,400
Refueling Water Storage Tank (RWST)	664,000-826,800	4,000-4,400
Spray Chemical Tank (40% NaOH)	8,500-10,000	0

Only the RCS and Safety Injection Tanks are located inside the Containment. The spray chemical tank and RWST are located in the Reactor Auxiliary Building and the yard respectively. All of the above sources will be injected into the Containment after a DBA. A description is provided in Section 6.5.2.

An FSAR section update will be submitted in a future amendment.