

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

AM4

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FACIL:50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397  
AUTH.NAME AUTHOR AFFILIATION  
SORENSEN,G.C. Washington Public Power Supply System  
RECIP.NAME RECIPIENT AFFILIATION  
SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards response to FSAR Question 110.41 re requirements  
for equipment nozzle loads,per SER Confirmatory Issue on  
Component Supports.

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TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

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| ID CODE/NAME       |    | LTTR   | ENCL | ID CODE/NAME    |    | LTTR   | ENCL |
| NRR/DL/ADL         |    | 1      | 0    | NRR LB2 BC      |    | 1      | 0    |
| NRR LB2 LA         |    | 1      | 0    | AULUCK,R.       | 01 | 1      | 1    |
| INTERNAL: ELD/HDS2 |    | 1      | 0    | IE FILE         |    | 1      | 1    |
| IE/DEPER/EPB       | 36 | 3      | 3    | IE/DEPER/IRB    | 35 | 1      | 1    |
| IE/DEQA/QAB        | 21 | 1      | 1    | NRR/DE/AEAB     |    | 1      | 0    |
| NRR/DE/CEB         | 11 | 1      | 1    | NRR/DE/EHEB     |    | 1      | 1    |
| NRR/DE/EOB         | 13 | 2      | 2    | NRR/DE/GB       | 28 | 2      | 2    |
| NRR/DE/MEB         | 18 | 1      | 1    | NRR/DE/MTEB     | 17 | 1      | 1    |
| NRR/DE/SAB         | 24 | 1      | 1    | NRR/DE/SGEB     | 25 | 1      | 1    |
| NRR/DHFS/HFEB40    |    | 1      | 1    | NRR/DHFS/LQB    | 32 | 1      | 1    |
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| NRR/DSI/AEB        | 26 | 1      | 1    | NRR/DSI/ASB     |    | 1      | 1    |
| NRR/DSI/CPB        | 10 | 1      | 1    | NRR/DSI/CSB     | 09 | 1      | 1    |
| NRR/DSI/ICSB       | 16 | 1      | 1    | NRR/DSI/METB    | 12 | 1      | 1    |
| NRR/DSI/PSB        | 19 | 1      | 1    | NRR/DSI/RAB     | 22 | 1      | 1    |
| NRR/DSI/RSB        | 23 | 1      | 1    | REG FILE        | 04 | 1      | 1    |
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| EXTERNAL: ACRS     | 41 | 6      | 6    | BNL(AMDTs ONLY) |    | 1      | 1    |
| DMB/DSS (AMDTs)    |    | 1      | 1    | FEMA-REP DIV    | 39 | 1      | 1    |
| LPDR               | 03 | 1      | 1    | NRC PDR         | 02 | 1      | 1    |
| NSIC               | 05 | 1      | 1    | NTIS            |    | 1      | 1    |

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| EXHIBIT A |       | EXHIBIT B |       | EXHIBIT C |       | EXHIBIT D |       |
|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| Item      | Value | Item      | Value | Item      | Value | Item      | Value |
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| 49        | 4900  | 49        | 4900  | 49        | 4900  | 49        | 4900  |
| 50        | 5000  | 50        | 5000  | 50        | 5000  | 50        | 5000  |

## Washington Public Power Supply System

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

October 4, 1983  
G02-83-884

Docket No. 50-397

Director, Nuclear Reactor Regulation  
Attention: Mr. A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Schwencer:

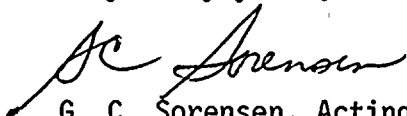
Subject: NUCLEAR PROJECT NO. 2  
SUPPLY SYSTEM RESPONSE TO  
FSAR QUESTION 110.41

Reference: (a) Letter, A. Schwencer (NRC) to DW Mazur (SS),  
dated August 3, 1983, subject, "FSAR Questions  
110.41, 110.42, 110.43 and 110.44"  
(b) Letter, G02-83-584, GD Bouchey (SS) to  
A. Schwencer (NRC), dated June 30, 1983, subject,  
"Confirmatory Issue No. 7 - Component Supports"

The Washington Public Power Supply System hereby provides a reply to  
FSAR Question 110.41 which was submitted as an attachment to reference  
(a) above. Our reply consists of this letter and one attachment.

If you have any questions or desire further information, please contact  
P. L. Powell, Manager, WNP-2 Licensing.

Very truly yours,



G. C. Sorensen, Acting Manager  
Nuclear Safety and Regulatory Program

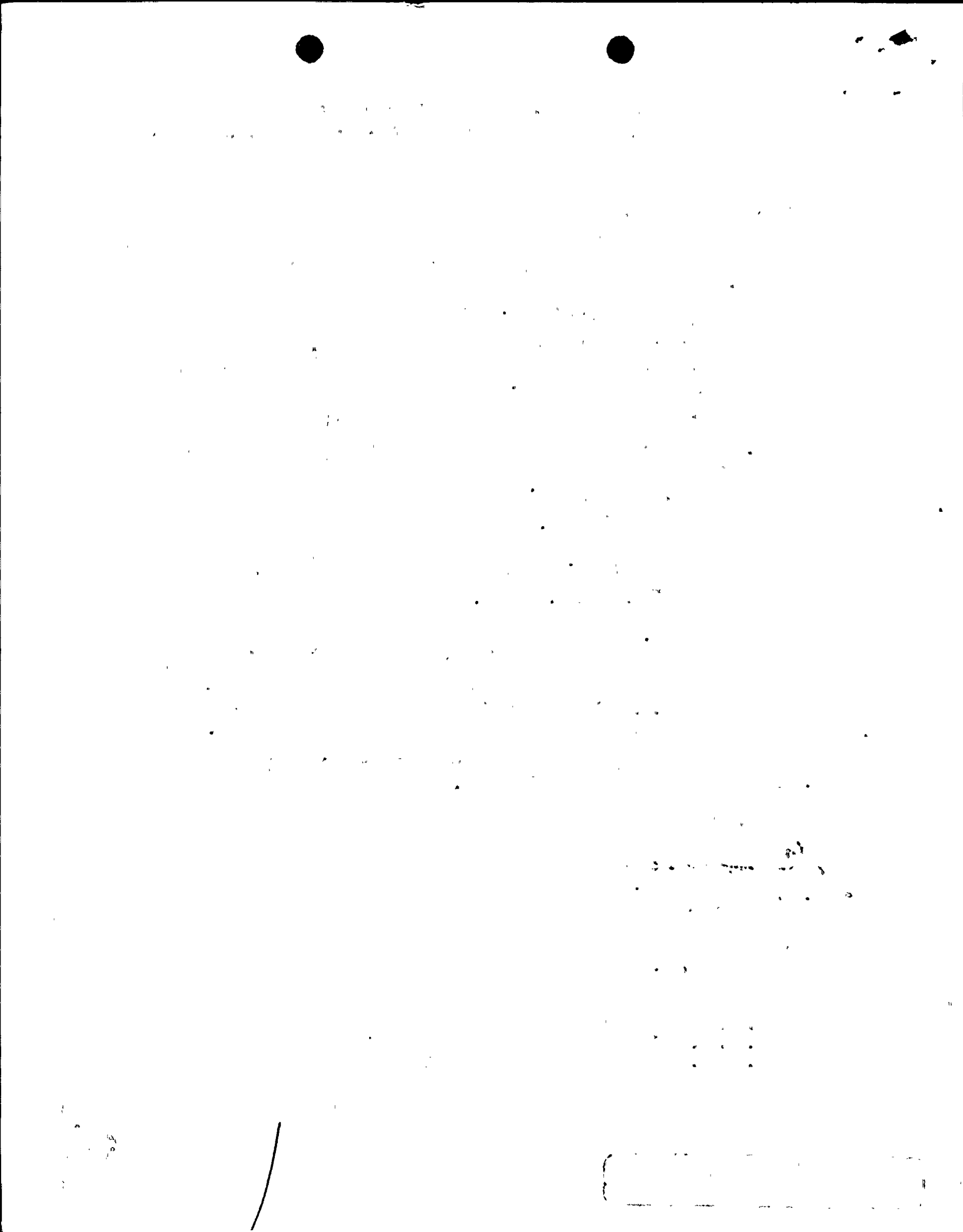
GCS:TEB:ch

Attachment: Attachment 1 - Response

cc: Mr. R. Auluck - NRC  
Mr. W. S. Chin - BPA  
Mr. A. D. Toth - NRC Resident Inspector

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E PDR

Boo!  
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FSAR Question 110.41

The response to Question 110.40-1 is not complete. The fact that equipment nozzle loads meet vendor requirements is a necessary requirement but does not assure in itself that the proper categorization of the outputs of the piping analysis was used in establishing the nozzle loads. Provide a response to the question originally asked i.e., was restraint of free expansion and seismic anchor motion of the piping system categorized as primary stresses in the design of component supports?

Supply System Response

FSAR, Question 110.40-1 is provided below for purposes of continuity as follows:

110.40 SER Confirmatory Issue No. 7 - Component Supports

The information contained in the letter from G. D. Bouchey to A. Schwencer, "Nuclear Project No. 2 SER Confirmatory Issue No. 7 - Component Supports", dated December 30, 1982 is not completely acceptable. The response addressed piping supports only. The staff's concerns on this issue pertains to all component supports. In addition, the information in Section III E of the attachment to the letter, "C-2808 Burns and Roe-Large Bore Piping" does not provide an adequate basis for the staff to conclude that all of these supports are conservatively designed. Provide the following additional information:

1. In addition to the information submitted in the above referenced letter, provide a response to the staff's position for all remaining component supports, such as those for pumps, heat exchangers, filters, etc.

The design of component supports for WNP-2 was presented as stated in the response to the above question. The design criteria and load combinations for component supports (pumps, heat exchangers, filters, etc.) use the same design criteria as that used for piping supports. Specifically, the restraint of seismic anchor motion is categorized as primary for both large and small bore piping in all loading combinations. The restraint of free expansion of piping is categorized as primary in the normal, upset, and emergency loading combinations for large bore piping loadings and in all loading combinations for small bore piping loadings. The restraint of free expansion of piping is categorized as a secondary stress in the faulted load combination for large bore piping. In addition, piping connections to components (nozzles) were included in all piping stress analysis as 6-way restraints and were included in both

TO : THE SECRETARY OF DEFENSE

FROM : THE SECRETARY OF DEFENSE

Phase I and Phase II studies. All nozzles in the Phase II portion of the study, where the restraint of free expansion of large bore piping was considered as a primary stress in the faulted load combination, were demonstrated to be acceptable. A review of Phase I and Phase II results demonstrates that 6-way restraints, including nozzles, have similar statistical loading distributions as Phase II loads when compared to one and two directional restraints. It has therefore been concluded with a high degree of confidence that if Phase II loads were developed for all anchor groups, that resulting nozzle loads, and their respective component supports, would be acceptable.