

50-397

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FILE NUMBER

TO: DR W D BUTLER

FROM: WASHINGTON PUBLIC POWER SUPPLY SYSTEM.....RICHLAND, WS
D L RENBERGER

DATE OF DOCUMENT
3-18-76

DATE RECEIVED
3-24-76

LETTER
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DESCRIPTION
LTR NOTORIZED 3-18-76.....
LTR RE OUR LTRS 4-17-75 & 4-23-75 AND THEIR LTRS 11-10-75 & 2-24-76 LTRS.....DISCUSSING MARK II CONTAINMENT....ADVISING A DESCRIPTION DOCUMENT IS BEING USED TO EVALUATE THE MARK II CONTAINMENT FOR THE WPPSS NUCLEAR PROJECT TRANS THE FOLLOWING.....

ENCLOSURE
PLANT DESIGN ASSESSMENT FOR SRV AND LOCA LOADSA FOR WPPSS NUCLEAR PROJECT NO. 2

DIST: PER MR MINER 3/25/76.....

PLANT NAME: WPPSS #2

DO NOT REMOVE
ACKNOWLEDGED

SAFETY

FOR ACTION/INFORMATION

ENVIRO 3-26-76 RB

ASSIGNED AD :		ASSIGNED AD :
BRANCH CHIEF : LTR	BUTLER	BRANCH CHIEF :
PROJECT MANAGER:	LYNCH	PROJECT MANAGER :
LIC. ASST. : LTR	KASHBROOK	LIC. ASST. :

INTERNAL DISTRIBUTION

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OELD		LAINAS	SPANGLER
GOSSICK & STAFF	ENGINEERING	IPPOLITO	
MIPC	MACCARY		SITE TECH
CASE	KNIGHT (2)	OPERATING REACTORS	GAMMILL
HANAUER	SIHWEIL	STELLO	STEPP
HARLESS	PAWLICKI		HULMAN
		OPERATING TECH	
PROJECT MANAGEMENT	REACTOR SAFETY	EISENHUT	SITE ANALYSIS
BOYD	ROSS	SHAO	VOLLNER
P. COLLINS	NOVAK	BAER	BUNCH
HOUSTON	ROSZTOCZY	SCHWENCER	J. COLLINS
PETERSON	CHECK	GRIMES	KREGER
MELTZ			
HELTEMES	AT & I	SITE SAFETY & ENVIRO	
SKOVHOLT	SALTZMAN	ANALYSIS	
	RUTBERG	DENTON & MULLER	

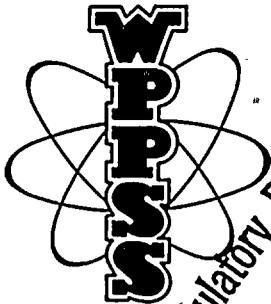
EXTERNAL DISTRIBUTION

CONTROL NUMBER

LPDR: RICHLAND WA.	NATL LAB	BROOKHAVEN NATL LAB	2944
TIC	REG. V-IE	ULRIKSON(ORNL)	
NSIC	LA PDR		
ASLB	CONSULTANTS		
ACRS HOLDING/SENT			

FROM

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JUL 11 1954



Regulatory Docket File

Washington Public Power Supply System
A JOINT OPERATING AGENCY

P. O. Box 968 3000 GEO. WASHINGTON WAY RICHLAND, WASHINGTON 99352 PHONE (509) 849-3681



Docket No. 50-397

March 18, 1976
G02-76-98



Director of Nuclear Reactor Regulations
Attention: Dr. W. D. Butler, Chief
Light Water Reactors Projects Branch 1-2
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: WPPSS NUCLEAR PROJECT NO. 2
MARK II CONTAINMENT - DESIGN EVALUATION

- References:
- 1) Letter, W. R. Butler to J. J. Stein, dated April 17, 1975, "Suppression Pool Hydrodynamic Loads During LOCA"
 - 2) Letter, W. R. Butler to J. J. Stein, dated April 23, 1975, "Pool Dynamic Load Due to Relief Valve Operation"
 - 3) Letter, N. O. Strand to O. D. Parr, dated November 10, 1975 (G02-75-310) "Mark II Containment Program"
 - 4) Letter, D. L. Renberger to R. H. Engelken, dated February 24, 1976 (G02-76-65), "WPPSS Nuclear Project No. 2, Mark II Containment - Design Deficiency"

Dear Dr. Butler:

This letter transmits a plant-unique design evaluation report prepared in response to NRC-Division of Reactor Licensing letters of April 17 and 23, 1975 (References 1 and 2) which requested additional information on suppression pool containment loads due to relief valve discharges and loss of coolant accidents. A program for supplying the requested information was developed in conjunction with other Mark II Containment Owners, their architect engineers, and General Electric. (Reference 3).

A Mark II Containment Dynamic Forcing Function Information Report - DFFR (NEDO-21061 and NEDE-21061P) was prepared as a phenomena description document (Reference 3) which is being used to evaluate the Mark II Containment for the WPPSS Nuclear Project No. 2.

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March 18, 1976
G02-76-98

Results of the design assessment indicate dynamic amplification during safety relief valve actuations, due to a couple between the suppression pool and the metal shell. Based on our review of the results from Burns and Roe, we have concluded the completed WPPSS Nuclear Project No. 2 containment should be modified due to the dynamic loading. The need for modification is based on conservative forcing functions available at this time. We believe this modification falls under the reporting requirements of 10CFR50.55e and have notified NRC Region V (Reference 4). Our Architect-Engineer, Burns and Roe, has identified a design modification concept that will allow the construction to continue on the remainder of the plant without precluding the ability to correct the existing deficiency. The concept involves adding stiffening to the interior of the wetwell.

Subsequently we have analytically determined some downcomer bracing and piping in the suppression pool may require modification to their design to enable them to withstand the hydrodynamic effects of a postulated loss-of-coolant accident. Modifications to the downcomer bracing and wetwell piping designs can be accommodated through normal design methods.

Since this deficiency is involved in a broad Mark II containment re-evaluation being performed for the Division of Reactor Licensing, we plan to continue to resolve the issue through the Division of Reactor Licensing.

Except where noted in the design evaluation report under "Continuing Studies," this report completes the responses to your letters of April 17 and 23 (References 1 and 2). We will continue to provide updated information to you on the status of generic Mark II owners long range program in support of the DFFR design basis information.

Fifteen (15) copies of the report are attached for your review.

Very truly yours,

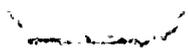


D. L. RENBERGER
Assistant Director,
Generation and
Technology

DLR:GLG:cab

cc: Mr. R. H. Engelken, Nuclear Regulatory Commission, Region V
Mr. J. G. Davis, U. S. Nuclear Regulatory Commission

Attachment



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Docket No. 50-397

WPPSS Nuclear Project No. 2
Mark II Containment--Design Evaluation

STATE OF WASHINGTON)
) ss
COUNTY OF BENTON)

D. L. RENBERGER, Being first duly sworn, deposes and says: That he is the Assistant Director, Generation and Technology, for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that he is authorized to submit the foregoing on behalf of said applicant; that he has read the foregoing and knows the contents thereof; and believes the same to be true to the best of his knowledge.

DATED March 18, 1976

D L Renberger
D. L. RENBERGER

On this day personally appeared before me D. L. RENBERGER 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 therein mentioned.

GIVEN under my hand and seal this 18th day of March, 1976.



Reba B. Helgeson
Notary Public in and for the State of
Washington
Residing at Richland

3 Nov 35

