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FROM: PP&L Allentown, PA. N.W. Curtis		DATE OF DOC 11-25-75	DATE REC'D 11-28-75	LTR XXX	TWX	RPT	OTHER
TO: Walter R. Butler		ORIG 1 Signed	CC 0	OTHER	SENT NRC PDR SENT LOCAL PDR		XXX XXX
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-387-388		

**DESCRIPTION:**  
Letter re. their letter of 4-17 and 23-75.  
Letter providing additional info. on the adequacy of the Mark II Containment for Sasquehanna Steam Elec. Station. W/Attached status program.

**ENCLOSURES:**

(1 Copy Received)

PLANT NAME: Sasquehanna # 1 & 2-

**FOR ACTION/INFORMATION**

SAB 12-3-75

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PP&L

TWO NORTH NINTH STREET, ALLENTOWN, PA. 18101 PHONE: (215) 821-5151

November 25, 1975

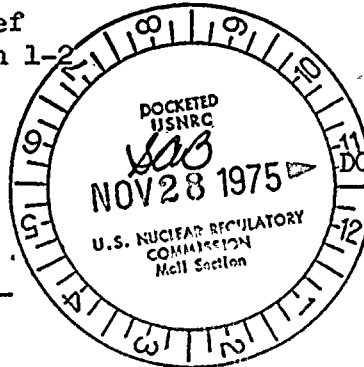
Director of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Regulatory

File Cr

ATTENTION: Dr. Walter R. Butler, Chief  
Light Water Reactor Branch 1-2

SUSQUEHANNA STEAM ELECTRIC STATION  
MARK II CONTAINMENT - DYNAMIC FORCING  
FUNCTION INFORMATION REPORT  
ER 100450 FILE 172  
PLA-89



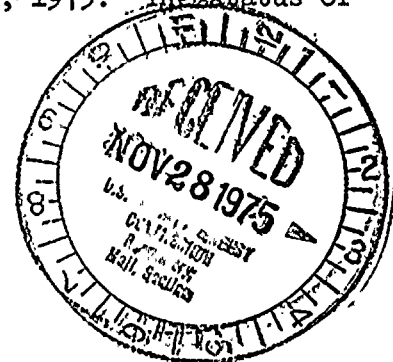
DOCKET NOS. 50-387 and 50-388

Dear Dr. Butler:

In your April 17 and 23, 1975 letters to PP&L, you requested that we provide further information on the adequacy of the Mark II containment for Susquehanna SES (SSES) with respect to recently identified hydrodynamic loads. In the attachment to our June 5, 1975 letter, we provided you with our program and schedule for conducting an assessment of the containment structures.

Item 1 of the attachment was submitted to you on August 7, 1975. Item 2 and a portion of Item 3 are covered by the Mark II Containment Dynamic Forcing Function Information Report (DFFR) NEDO-21061 and NEDE-21061P. The DFFR was transmitted by GE letter from I.F. Stuart to R. Boyd dated October 24, 1975, and contains phenomena descriptions which will be used to evaluate the Mark II containment on SSES. This report was submitted later than expected due to additional technical efforts required to complete the DFFR and the inclusion of phenomenological information on Item 3. As a consequence, Item 4, the plant unique report, is now expected to be submitted by the end of January, 1976. We expect to include the complete response to Item 3 in the plant unique report.

On June 30, 1975 the Mark II Containment Owners presented to the NRC an outline and schedule for the Mark II Supporting Program. This supporting program (Item 5 of our June 5 letter) was submitted to you on August 25, 1975. The status of this program is as follows:





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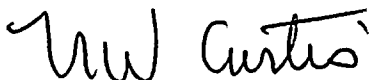
Dr. Walter R. Butler  
Page 2  
PLA-89

1. LOCA Related Activities - Item A.3 (Impact Tests on Pool Internal Structures) and Item A.4 (Qualification of Impact Model) are covered by recently submitted documents NEDE-13426-P Class III and NEDC-20989-2P (Vol. 2) respectively.
2. Safety/Relief Valve Related Activities - Item B.2 (Relief Valve Pipe Clearing for Ramshead) is covered by:
  - a. for modeling, NEDO-20942 and NEDE-20942 P;
  - b. for test comparisons, NEDO-21062 and NEDE-21062 P.

The attached table of load factors will be used to evaluate the SSES Containment as discussed with you at our August 21, 1975 meeting. This table identifies the numerical values and is complimentary to Table 5.2-1 in the DFFR.

The purpose of this letter is to reference these documents on the Susquehanna docket. Moreover, as a member of the Mark II Owners Group we will be closely following the progress of the Supporting Program and keep you advised of its progress. Any reports, data or analyses which become available during the Supporting Program will be forwarded to the NRC through appropriate channels.

Very truly yours,



N. W. Curtis  
Vice President-Engineering & Construction

WEB:AAW



LOAD COMBINATION FOR MARK II CONTAINMENTS CONSIDERING HYDRODYNAMIC LOADS

<u>EQN.</u>	<u>LOAD COND.</u>	<u>D</u>	<u>L</u>	<u>F</u>	<u>P<sub>O</sub></u>	<u>T<sub>O</sub></u>	<u>R<sub>O</sub></u>	<u>E<sub>O</sub></u>	<u>E<sub>SS</sub></u>	<u>P<sub>B</sub></u>	<u>P<sub>A</sub></u>	<u>T<sub>A</sub></u>	<u>R<sub>A</sub></u>	<u>R<sub>T</sub></u>	<u>SRV</u>
1	Normal w/o Temp	1.4	1.7	1.0	1.0	-	-	-	-	-	-	-	-	-	1.5
2	Normal w/Temp	1.0	1.3	1.0	1.0	1.0	1.0	-	-	-	-	-	-	-	1.3
3	Normal Ser. Env.	1.0	1.0	1.0	1.0	1.0	1.0	1.25	-	-	-	-	-	-	1.25
4	Abnormal	1.0	1.0	1.0	-	-	-	-	-	1.25	-	1.0	1.0	-	1.25
4a	Abnormal	1.0	1.0	1.0	-	-	-	-	-	-	1.25	1.0	1.0	-	-
5	Abnormal Sev. Env.	1.0	1.0	1.0	-	-	-	1.1	-	1.1	-	1.0	1.0	-	1.1
5a	Abnormal Sev. Env.	1.0	1.0	1.0	-	-	-	1.1	-	-	1.1	1.0	1.0	-	-
6	Normal Ext. Env.	1.0	1.0	1.0	1.0	1.0	1.0	-	1.0	-	-	-	-	-	1.0
7	Abnormal Ext. Env.	1.0	1.0	1.0	-	-	-	-	1.0	1.0	-	1.0	1.0	1.0	1.0
7a	Abnormal Ext. Env.	1.0	1.0	1.0	-	-	-	-	1.0	-	1.0	1.0	1.0	1.0	-

LOAD DESCRIPTION

- |  |   |
|--|---|
| D = Dead Loads                               | E <sub>O</sub> = Operating-Basis Earthquake                             |
| L = Live Loads                               | E <sub>SS</sub> = Safe Shutdown Earthquake                              |
| F = Prestressing Loads                       | P <sub>B</sub> = SBA or IBA Pressure Load                               |
| T <sub>O</sub> = Operating Temperature Loads | P <sub>A</sub> = DBA (LOCA) Pressure Load                               |
| R <sub>O</sub> = Operating Pipe Reactions    | T <sub>A</sub> = Pipe Break Temperature Load                            |
| P <sub>O</sub> = Operating Pressure Loads    | R <sub>A</sub> = Pipe Break Temperature Reaction Loads                  |
| SRV = Safety/Relief Valve Loads              | R <sub>T</sub> = Reaction and jet forces associated with the pipe break |



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