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 FACIL: 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv 05000388  
 AUTH. NAME AUTHOR AFFILIATION  
 KEISER, H. W. Pennsylvania Power & Light Co.  
 RECIP. NAME RECIPIENT AFFILIATION  
 ADENSAM, E. BWR Project Directorate 3

SUBJECT: Suppl info to 860912 ltr re application of amend to License  
 NPF-22 concerning emergency Tech Spec change request. Safety  
 evaluation encl.

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	ELD/HDS4	1 0	NRR/DHET/TSCB	1 1
	NRR/DRAS	1 0	<u>REG FILE</u> 04	1 1
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Pennsylvania Power & Light Company

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Harold W. Keiser  
Vice President-Nuclear Operations  
215/770-7502

September 12, 1986

Director of Nuclear Reactor Regulation  
Attention: Ms. E. Adensam, Project Director  
BWR Project Directorate No. 3  
Division of BWR Licensing  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION  
EMERGENCY TECHNICAL SPECIFICATION CHANGE REQUEST  
PROPOSED AMENDMENT 41 TO LICENSE NO. NPF-22  
SUPPLEMENTAL INFORMATION  
PLA-2720

FILE R41-2

Docket No. 50-388

Dear Ms. Adensam:

As requested by the staff, this letter supplements information sent to you in our previous letter, PLA-2719, dated 9/12/86.

Attached is the safety evaluation (NL 86-005) of the alternate method for removal of decay heat when the unit is being defueled. Using the alternate method for removal of decay heat when refueling is bounded by the safety evaluation used when defueling since the decay heat is lower when refueling.

The following is a revised No Significant Hazards Evaluation of this proposed change.

NO SIGNIFICANT HAZARDS EVALUATION

- I. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change would allow SSES Unit 2 to follow a currently prescribed action statement upon entering OPERATIONAL CONDITION 5 instead of while already in OPERATIONAL CONDITION 5. Performing CORE ALTERATIONS is the basis of that transition and simply starting CORE ALTERATIONS instead of simply continuing CORE ALTERATIONS does not affect the probability or consequences of any accident previously analyzed for those conditions.

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ACQUISITION OF...

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Secondly, operation as described in this Emergency Technical Specification Change Request will involve movement of fuel; fuel handling accidents have been previously evaluated in FSAR Section 15.7.4. This proposed action will not involve any changes in fuel handling procedures, equipment, or coolant inventory. Thus, this change does not increase the probability or consequences of a fuel handling accident as previously evaluated in FSAR Section 15.7.4.

Additionally, the consequences of the proposed plant configuration for defueling were evaluated with respect to FSAR Appendix 9A, "Analysis for Non-Seismic Spent Fuel Pool Cooling Systems." This evaluation was performed in the attached Safety Evaluation NL 86-005. Part III of this analysis concluded that:

- (1) The proposed plant configuration does not increase the probability of occurrence of a loss of fuel pool cooling. The events that could lead to a loss of fuel pool cooling, such as a seismic event, loss of service water, loss of power, loss of fuel pool pumps, etc., are all independent of the proposed plant configuration; the initiating events are independent of the fuel pool configuration.
- (2) If a loss of fuel pool cooling were to occur during the proposed operations, the radiological consequences would be less severe than for the FSAR Appendix 9A event. The attached safety evaluation calculates a time to pool boiling for the proposed configuration of 46 hours; pool boiling occurs after 25 hours in the Appendix 9A event. This is significant since the activity release rate from the pool depends on the rate of evaporation (boiling rate). Also, the radiological consequences of the postulated event are proportional to the number of defective fuel pins (1% is assumed in the FSAR Appendix 9A analysis). Offgas radiation in Unit 2 indicates that less than 1 fuel rod had failed during Cycle 1; therefore, the radiological consequences of a loss of fuel pool cooling accident during the proposed configuration are bounded by the FSAR Appendix 9A event.

Thus, the proposed action does not involve an increase in the probability or consequences of a loss of fuel pool cooling accident.

- II. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The only accidents of consequence for the proposed configuration are a fuel handling accident and any accident that would result in the inability to remove decay heat. Regardless of the initiating sequence of events, the consequences of any scenario resulting in the inability to remove decay heat are similar to and bounded by the FSAR Appendix 9A loss of fuel pool cooling event (as described in Part I, above). The fuel handling event analyzed in FSAR Section 15.7.4 is not different from that which could occur in this configuration. Therefore, there are no new accidents possible beyond those accidents previously analyzed in FSAR Section 15.7.4 and Appendix 9A.

The first part of the document discusses the general situation of the country and the role of the government. It mentions the need for a strong and stable government to ensure the well-being of the people and the progress of the nation. The text is somewhat repetitive and lacks clear structure.

In the second part, the author talks about the economic challenges facing the country and the need for reform. It suggests that the government should focus on improving the economy and creating jobs for the citizens. The language is vague and does not provide specific details or data.

The third section deals with the social and cultural aspects of the country. It emphasizes the importance of education and the role of the family in shaping the future of the nation. The text is filled with general statements and lacks concrete examples or evidence.

The fourth part of the document discusses the political system and the need for democratic reforms. It calls for greater participation of the citizens in the decision-making process and for the establishment of a fair and just legal system. The text is repetitive and does not address the specific issues or challenges of the political system.

In the fifth section, the author talks about the international relations of the country and the need for cooperation with other nations. It suggests that the country should engage in dialogue and collaboration with the international community to promote peace and stability. The text is vague and does not provide any specific information about the country's foreign policy.

The final part of the document is a conclusion that summarizes the main points of the text. It reiterates the need for a strong government, economic reform, social progress, and democratic participation. The text is repetitive and does not provide any new insights or conclusions.

September 12, 1986

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PLA-2720  
FILE R41-2

III. The proposed change does not involve a significant reduction in a margin of safety.

The answers expressed in I and II above indicate the insignificance of the role the mode change plays in terms of safety in this case. The margin of safety has not been significantly reduced by simply having an RHR loop available to support loading of the first bundle back into the core, after which OPERATIONAL CONDITION 5 would be entered, and the alternate decay heat removal method could be used. Also as described in the attached safety evaluation, the use of the alternate decay heat removal method does not reduce the margin of safety while going from OPERATIONAL CONDITION 5 to a defueled condition. Therefore, the margin of safety is not reduced while going from a defueled condition to OPERATIONAL CONDITION 5 since the attached safety evaluation demonstrates that this condition is bounded by existing FSAR analyses.

The following is additional information with respect to the schedule delay in restoring the RHR loop. When the original schedule was developed, it was anticipated that the work on the RHR 17A valve would take seven days to complete. The schedule was based on similar work that was completed on the Unit 1 RHR valves.

The commencement of work on the RHR valves was delayed two days due to problems with the refueling seal. After work on the valves commenced, there was a series of problems associated with the weld filler metal and the rework of the weld. These problems and retests added approximately twelve days to the original schedule.

As can be seen from the attached schedule, if refueling cannot commence as scheduled, there would be a day-for-day delay on the startup of the unit.

Very truly yours,

*C. F. Addington for*

H. W. Keiser  
Vice President-Nuclear Operations

ctc/lti202739a:mp

Attachment

cc: M. J. Campagnone - U.S. NRC

L. R. Plisco - U.S. NRC

T. M. Gerusky, Director  
Bureau of Radiation Protection  
Pa. Dept. of Environmental Resources  
P.O. Box 2063  
Harrisburg, PA 17120

Dear Sir,

I have the pleasure to inform you that your application for the position of [Job Title] has been reviewed and we are pleased to offer you the position. The salary for this position is [Salary] per annum. The position is full-time and permanent. The start date is [Start Date].

The duties of the position include [Duties]. You will be reporting to [Supervisor].

We are pleased to have you join our team and we look forward to your contribution to the organization.

Yours faithfully,

[Signature]  
[Name]  
[Title]  
[Company Name]  
[Address]  
[Phone Number]  
[Email Address]



**SSSES UNIT 2 FIRST REFUEL & INSPECTION OUTAGE**

**MILESTONE STATUS**

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<u>#</u>	<u>DESCRIPTION</u>	<u>SCHED DATE</u>	<u>F/C DATE</u>
1	Open Breaker - Commence Outage	08/09/86	08/09/86A
2	Reach Condition 4 - Cold Shutdown	08/10/86	08/09/86A
3	Reach Condition 5 - Refuel	08/11/86	08/12/86A
4	Reactor Cavity Flooded	08/14/86	08/15/86A
5	Commence Core Offload	08/14/86	08/16/86A
6	Core Offload Complete	08/24/86	08/28/86A
7	Complete Division I Work	09/03/86	09/03/86A
8	Declare Division I RHR Operable	09/11/86	09/24/86F
*9	Commence Core Reload	09/14/86	09/24/86F
10	Declare Division II RHR Operable	09/14/86	09/27/86F
11	RWCU/FW Restored to Service	09/19/86	09/19/86F
12	Complete Division II Work	09/21/86	09/27/86F
13	Commence RPV Assembly	09/23/86	10/03/86F
14	Turbine Generator Work Complete	09/24/86	09/24/86F
15	Complete Diesel Generator Testing	09/26/86	09/26/86F
16	Restore to Condition 4	09/29/86	10/09/86F
17	Vessel Leak Test Complete	10/01/86	10/11/86F
18	Turbine Building Restoration Complete	10/02/86	10/12/86F
19	Condition 2 - Commence Startup	10/07/86	10/17/86F
20	Close Breaker - End Outage	10/11/86	10/22/86F



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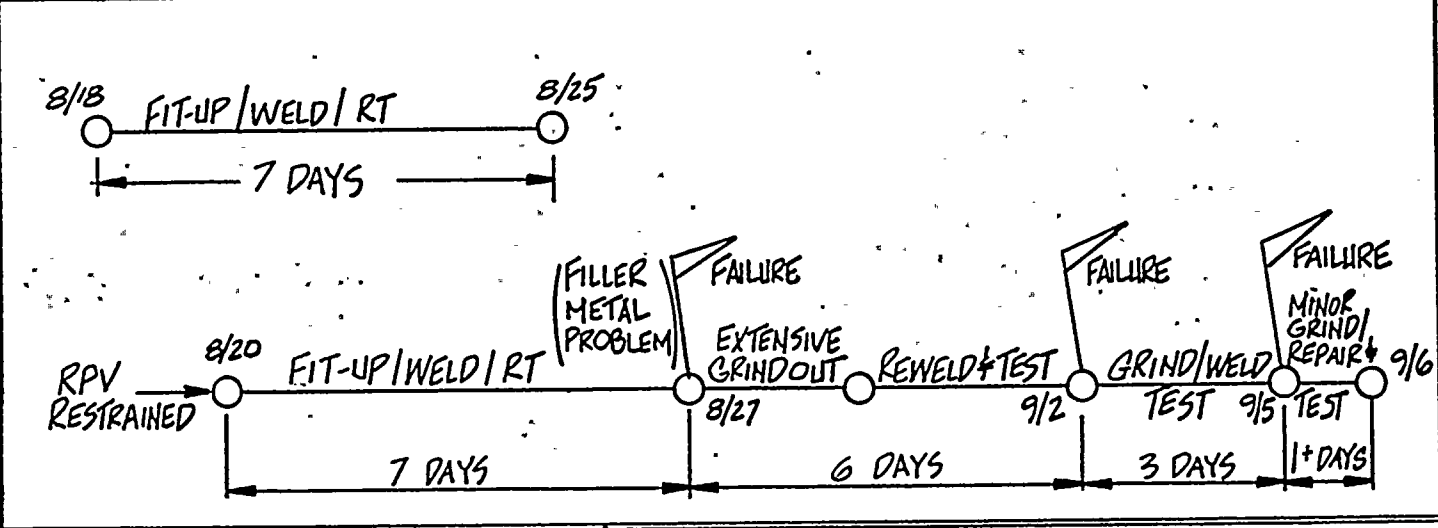
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1986																	COMMENTS				
AUGUST														SEPTEMBER							
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**17A VALVE**

ORIGINAL

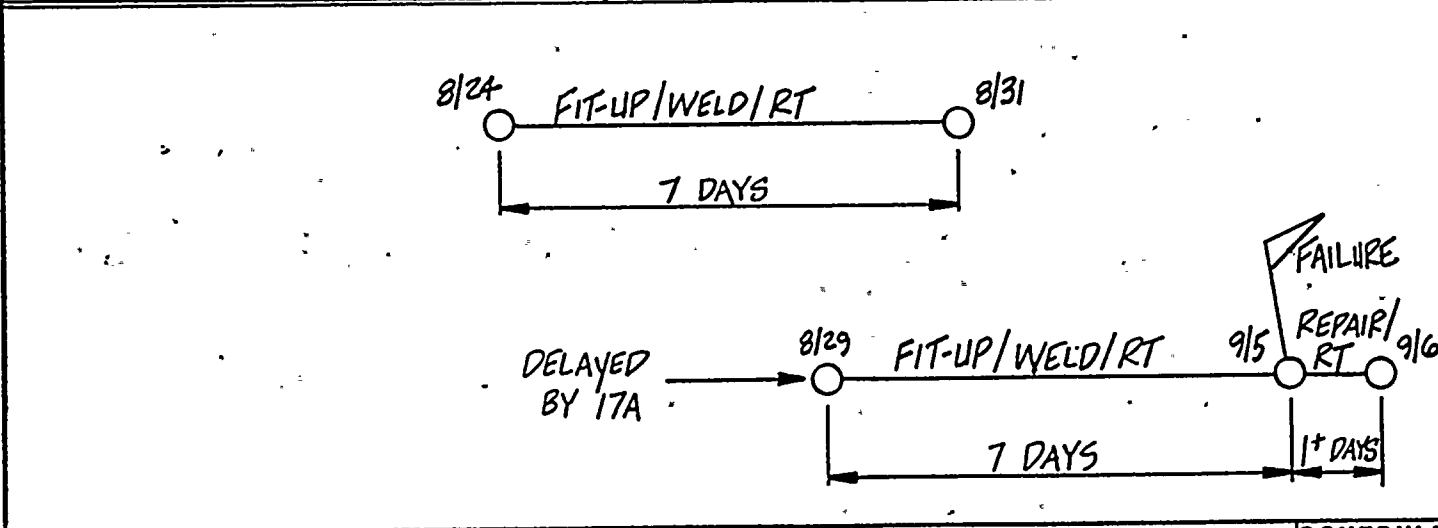
CURRENT



**17B VALVE**

ORIGINAL

CURRENT



PENNSYLVANIA POWER & LIGHT

REV	DATE	DRWN	PLN	APPROVAL
0	9/5	SYM		

TITLE: **UNIT 2 RHR EVOLUTION**

SCHEDULE STATUS	SCHEDULE NO.
SHEET OF 1	