



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MAR 09 1983

DCD-016

Docket No. 50-312

LICENSEE: Sacramento Municipal Utility District (SMUD)
FACILITY: Rancho Seco Nuclear Generating Station
SUBJECT: SUMMARY OF MEETING HELD ON FEBRUARY 9, 1983 WITH REPRESENTATIVES OF SMUD TO DISCUSS SMUD RESPONSES TO OUR DECEMBER 8, 1983 REQUEST FOR ADDITIONAL INFORMATION ON THE DESIGN OF THE RANCHO SECO AUXILIARY FEEDWATER SYSTEM

On December 8, 1983 the NRC requested additional information in order to complete our review of the Rancho Seco Auxiliary Feedwater System (AFWS) and to provide our findings on the upgraded AFWS to the Atomic Safety and Licensing Appeal Board (ASLAB). By letter dated January 14, 1983, the licensee provided their responses to the information request. We completed our review of the licensee's responses and found that there were still a number of items where we did not have sufficient information for our review. The purpose of the meeting was to discuss these open items with the licensee. The attendees list and a status list of the open items are enclosed.

Discussion

The topics discussed during the meeting and the results of the discussion are as follows.

1. Seismic and Quality Group Classification (AFWS)

The existing AFWS is a seismic Class 1 system designed and installed to ANSI B31.1. The containment penetrations are designed and installed to ANSI B31.7 Class 2. The upgraded portion of the system will be designed and installed to ASME Section III per Regulatory Guide 1.26.

2. Tornadoes, Floods, External and Internally-Generated Missiles

The licensee stated that Rancho Seco was not designed for tornado or tornado missiles. In addition, the licensee indicated that their turbine missile evaluation did not consider their effects on the AFWS. However, the FSAR for the Rancho Seco Plant states that the plant was designed to withstand a 101 mile per hour wind and missiles generated by the wind. The licensee will respond by giving their position and will search their files for available documentation that would provide background information related to the operating license review of the design basis.

4. Protection Against Pipe Break

The licensee will ensure that the new AFWS will meet the high energy line break criteria.

6. AFW Pump Protection - Short Term

The licensee's position is that protection of the AFW pumps from failure due to loss of water due to failure of the condensate storage tank is not required. The reason for the licensee's position is that condensate storage tank and its water supply to the pumps are acceptably protected against failure because the condensate storage tank is:

(1) protected for winds and missiles, (2) has an internal standpipe so that damage on the supply side cannot drain the tank, (3) is seismic Category I and (4) has 2 lines from the tank to each of the AFW pumps.

7. Loss of All AC Power - Emergency Procedures

The licensee will provide written confirmation that an operator will be stationed at the AFWS control valves on loss of all AC power. This would be included in the procedures for loss of feedwater.

9. AFWS Reliability

The licensee stated that the improvement in the AFW controls by installing a Class I control system is more important than an improvement in the reliability for the AFWS to initiate. The licensee also indicated they think that because of such items as alarms on position indicator, manual valves the system reliability is actually better than the reliability numbers indicate.

10. Minimum Flow Requirements

The licensee stated the minimum flow design for the upgrade AFWS is 760 gpm within 70 seconds to the steam generator. They have done detailed calculations to justify a design basis of 760 gpm within 50 seconds and had only done scoping calculations for the 760 gpm within 70 second case. The licensee will provide sufficient information to show that a design basis of 760 gpm within 70 seconds meets the guidelines of our February 26, 1980 letter.

Original Signed By:

Sydney Miner, Sr. Project Manager
 Operating Reactors Branch #4
 Division of Licensing

Enclosures:

1. List of Attendees
2. Status List of Open Items

OFFICE		ORB#4:DL			
SURNAME	cc w/enclosures: See next pg.	SMiner/cb			
DATE		5/3/83			

MEETING SUMMARY DISTRIBUTION

Licensee: SMUD

*Copies also sent to those people on service (cc) list for subject plant(s).

Docket File
NRC PDR
L PDR
ORB#4 Rdg
Project Manager - SMiner
JStolz
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Licensing Assistant - RIngram
OELD
JHeltemes, AEOD
ELJordan, IE
JMTaylor, IE
ACRS (10)
NSIC

NRC Meeting Participants:

OParr
ESylvester
BCapra
MEI Zeftawy
DJeng
RLessy
GLear
LRubenstein

MEETING OF FEBRUARY 9, 1983 - AUXILIARY FEEDWATER SYSTEM, RANCHO SECO

NRC

Sydney Miner
Olan D. Parr
Ernest Sylvester
Bob Capra
M. El. Zeftawy
David Jeng
Roy Lessy
George Lear
L. S. Rubenstein

SMUD

Bud Beebe
Bob Dieterich
Jim Field
Shaw, Pittman, Potts & Trowbridge
T. A. Baxter
Nancy Knowles

B&W

Dave Holt

RANCHO SECO AUXILIARY FEEDWATER SYSTEM
EVALUATION OF SMUD LETTER JANUARY 14, 1983
AND STATUS OF OPEN ITEMS

1. Seismic and Quality Group Classification - AFWS

Sufficient information was not provided to verify that the seismic and quality group classifications of the upgraded AFWS design are acceptable. The licensee should provide the following:

- a. A schematic drawing of the upgraded AFWS design (i.e., Figure 3.1-1 of the September 8, 1981 SMUD submittal) showing boundaries between seismic Category I portions and nonseismic Category I portions of the AFWS and interfaces with nonseismic Category I systems.
- b. On the AFWS drawing provided for item a. above, indicate the quality group (ASME classification) of all AFWS components.

2. Seismic Classification - Structural

The January 14, 1983 response is acceptable.

3. Tornadoes, Floods, External and Internally-Generated Missiles

The January 14, 1983 submittal does not provide sufficient information to verify that the upgraded AFWS design satisfies current guidelines with regard to protection against tornadoes, tornado missiles, turbine missiles and internally-generated missiles. The licensee should provide protection against tornadoes, tornado missiles, turbine missiles and internally-generated missiles, in accordance with current guidelines, for the proposed upgraded AFWS.

4. Protection Against Pipe Break

The January 14, 1983 submittal does not provide sufficient information to verify that the entire upgraded AFWS design satisfies current guidelines with regard to pipe break protection. The licensee states that a pipe break analysis will be performed on the upgraded AFWS prior to implementation of system modifications. We will review the licensee's analysis to verify that the entire AFWS satisfies current guidelines with regard to protection against the effects of high-energy and moderate energy pipe breaks.

5. Flow Control Valves - Control Air

The January 14, 1983 response is acceptable.

6. AFW Pump Protection - Short Term

The existing AFWS design does not provide adequate protection against pump damage, as specified by short-term recommendation GS-4, in the event of catastrophic loss of the condensate storage tank (CST). The licensee should propose an interim modification to the existing AFWS to ensure that loss of both AFW pumps would not occur as the result of an unavailability of the CST water supply on demand.

7. Loss of All AC Power - Emergency Procedures

The January 14, 1983 submittal does not provide adequate information to verify that emergency procedures require an operator to be stationed at the AFWS flow control valves on loss of all AC power and that operator training is being provided for manual operation of the existing AFWS flow control valves. This verification should be provided.

8. AFW Pump Protection - Long Term

The condensate storage tank (CST) does not satisfy current guidelines with regard to tornado and tornado missile protection. Further, the upgraded AFWS design does not provide protection for the AFW pumps against self-damage in the event of catastrophic loss of the CST. The licensee should provide protection for the CST, in accordance with current guidelines, against the effects of tornadoes and tornado missiles or, alternatively, provide some means of AFW pump protection in the event of catastrophic damage to the CST.

9. AFWS Reliability

The January 14, 1983 response is not acceptable. The licensee should provide justification for the statement that the benefit to be derived from the addition of a third AFW pump is not significant relative to the cost of such a modification and its impact on overall plant safety. The licensee should consider the additional benefits to be derived from the addition of a third AFW pump relative to satisfying other staff concerns expressed herein.

10. Minimum AFW Flow Requirements

The January 14, 1983 submittal did not provide sufficient information to demonstrate the adequacy of either of the two flow requirements discussed in the response to this item. For the AFWS design flow specification of 760 gpm delivered at 70 seconds, the licensee should provide sufficient information to verify that all of the staff guidelines in Part D and in Attachment B to the Enclosure (1) of the NRC letter of February 26, 1980 have been satisfied.