

SNUPPS

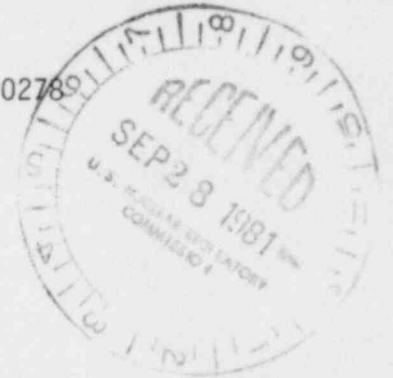
Standardized Nuclear Unit
Power Plant System

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Executive Director

September 22, 1981

SLNRC 81-111 FILE: 02789
SUBJ: ICSB Review



Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Docket Nos. STN 50-482, STN 50-483, and STN 50-486

Reference: SLNRC 81-82, dated September 1, 1981: Same subject

Dear Mr. Denton:

The referenced letter discussed extended hot shutdown from outside the control room and provided the appropriate FSAR changes to Section 7.4.3.1.3. Subsequent to the submittal of the reference, the NRC requested additional details on the measures that would have to be taken from locations other than the auxiliary shutdown panel in order to maintain hot shutdown. As discussed with the NRC staff, after an extended period boration of the reactor coolant system would be required. The enclosure to this letter provides a description of the possible methods for boration from outside the control room.

Concerning the SNUPPS reactor vessel head vent system, the following information is provided. The system is described in FSAR Section 18.2.1.2 and shown on Figures 5.1-1 (sheet 1) and 18.2-1. The vent valves have the following arrangement:

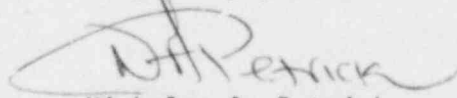
- a. Two separation group 1 solenoid operated valves in series, (i.e., BBHV8001A and BBHV8002A) are in parallel with two other series, separation group 4 solenoid operated valves (i.e., BBHV8001B and BBHV8002B).
- b. Each of the four valves has its own limit switch, hand indicating switch and computer point for valve control and indication.
- c. The cables associated with valve BBHV8001A are routed separately from the cables associated with valve BBHV8002A.

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- d. The cables associated with valve BBHV8002B are routed separately from the cables associated with valves BBHV8001B.
- e. The hand indicating switch for each valve's control employs two maintained contacts in series.

Very truly yours,


Nicholas A. Petrick

RLS/mtk

Enclosure

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BORATION FROM OUTSIDE THE CONTROL ROOM

Boron can be added to the Reactor Coolant System (RCS) from outside of the control room by manual control of the charging system via controls at the auxiliary shutdown panel, motor control centers, switchgears, and local control at the device location. Boration can be accomplished without lifting leads and without jury-rigging. One method of adding boric acid is as follows:

- A. Transfer boric acid from the boric acid tanks to the suction of the centrifugal charging pumps. Refer to FSAR Figure 9.3-8, sheets 3 and 5.
 1. Start boric acid transfer pump(s) via local control switches (Location: Auxiliary Building room No. 1117 for "A" pump, and room 1116 for "B" pump)
 2. Open valve HV-8104 via the manual handwheel (Location: Auxiliary Building room No. 1112)
- B. Deliver boric acid, via the centrifugal charging pump(s), through the BIT path to the RCS. Refer to FSAR Figure 9.3-8, sheet 3, Figure 6.3-1, sheet 3 and Figure 5.1-1, sheet 1.
 1. Start the centrifugal charging pumps at the switchgear (Location: Control Building room No. 3301 for "A" pump. room No. 3302 for "B" pump)
 2. Open valve HV-8803A or HV-8803B via the manual handwheel (Location: Auxiliary Building room No. 1126)
 3. Open valve HV-8801A or HV-8801B via the manual handwheel. (Location: Auxiliary Building room 1323)

An alternate means to transfer boric acid to the RCS would be as follows:

- A. Transfer boric acid to the suction of the charging pump via valve FCV 110A (Location: Auxiliary Building room No. 1112) which can be opened by reducing the valve air regulator set pressure. Refer to FSAR Figure 9.3-8, sheet 5.
- B. Deliver boric acid to the RCS, via the charging pumps, through the normally aligned regenerative heat exchanger or reactor coolant pump seal path. All valves in these paths are normally open and fail open since all motor operated valves are normally open. Refer to FSAR Figure 9.3-8, sheets 1 and 3, and Figure 5.1-1, sheets 1 and 3.

Under certain reactor core conditions it may be necessary to letdown reactor coolant so that a sufficient quantity of boric acid can be added to the RCS. Reactor coolant letdown can be accomplished from outside of the control room without lifting leads and without jury-rigging.

Manual control of letdown to the volume control tank can be accomplished by controls at the auxiliary shutdown panel and by reducing air operated valve air regulator set pressures. The valves necessary for letdown and associated information concerning control of these valves are shown below (Reference: FSAR Figure 5.1-1, sheet 1, and Figure 9.3-8, sheets 1 and 2).

VALVE TAG NO.	CONTROL LOCATION	NORMAL VALVE POSITION	VALVE FAILURE POSITION
LCV-460	Auxiliary Shutdown Panel	Open	Closed
LCV-459	Auxiliary Shutdown Panel	Open	Closed
HV-8149C	Auxiliary Shutdown Panel	Open	Closed
HV-814 B	Auxiliary Shutdown Panel	Closed	Closed
HV-8145	Auxiliary Shutdown Panel	Closed	Closed
HV-8160	Auxiliary Shutdown Panel	Open	Closed
HV-8152	Auxiliary Shutdown Panel	Open	Closed
TCV-381B	Auxiliary Bldg. Room #1125	Open	Open
PCV-131	Auxiliary Bldg. Room #1125	Open	Open
TCV-129	Auxiliary Bldg. Room #1125	Aligned to Demineralizer	Aligned to Volume Control Tank
LCV-112A	Auxiliary Bldg. Room #1302	Aligned to Demineralizer	Aligned to Volume Control Tank