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SHIELDS L. DALTROFF
VICE PRESIDENT
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December 29, 1981

Re: Docket Nos. 50-277
50-278

Mr. Darrell G. Eisenhut, Director
Division of Licensing
US Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Information Requested by NUREG 0737, "Clarification of TMI Action Plan Requirements"

Dear Mr. Eisenhut:

This letter transmits information requested in NUREG 0737, items II.F.1 (4) (wide range containment pressure monitor), II.K.3.22 (RCIC suction transfer), and II.K.3.28 (ADS accumulators). The information relates to our plans for implementing several TMI related requirements. Additionally, an informal request for information on II.K.3.25 from the NRC staff to the BWR Owner's Group is discussed. NUREG 0737, item II.K.24 (Space Cooling for HPCI and RCIC) requests an engineering evaluation by January 1, 1982. This obligation was previously satisfied in Attachment C of a June 29, 1981 correspondence (S. L. Daltroff, Philadelphia Electric Company to D. G. Eisenhut, NRC).

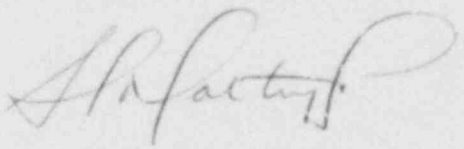
NUREG 0737 requests the licensee to notify the NRC on January 1, 1982 of the status of the modification required by item II.F.1 (4) for wide range containment pressure monitor. The containment pressure instrument modification has been completed on Peach Bottom Unit 3, and is scheduled to be completed on Unit 2 during the refueling outage scheduled to start February 20, 1982, pending NRC approval of our proposed schedule (letter dated September 4, 1981, S. L. Daltroff to D. G. Eisenhut). The new

instrument system was described in correspondence dated October 15, 1980 and December 22, 1980 (S. L. Daltroff to D. G. Eisenhut).

The information regarding items II.K.3.22, II.K.3.25, and II.K.3.28 is presented in the enclosures with this letter. A request for extending the implementation date on items II.K.3.22 and II.K.3.28 was submitted in correspondence dated December 23, 1981, for Peach Bottom Unit No. 3 and in correspondence dated September 4, 1981, for Peach Bottom Unit No. 2 (S. L. Daltroff to D. G. Eisenhut).

Should you have any questions regarding these matters, please do not hesitate to contact us.

Very truly yours,



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Enclosure 1

NUREG 0737, Item II.K.3.22 Requirement:
Automatic Switchover of Reactor Core
Isolation Cooling System Suction

NRC REQUIREMENTS

The reactor core isolation cooling (RCIC) system suction shall automatically switchover from the condensate storage tank to the suppression pool when the storage tank level is low. The licensee was requested to implement the design changes, and provide an evaluation that demonstrates the acceptability of the modification by January 1, 1982.

RESPONSE

This requirement has been implemented on Peach Bottom Unit 3 and is scheduled to be completed for Unit 2 during the refueling outage scheduled to start February 20, 1982. The modification involves the addition of two condensate tank level instrument loops, each consisting of a transmitter and trip unit, and changes to the controls for the suppression pool suction valve.

RCIC suppression pool suction valves MO 13-39 and MO 13-41 will open whenever the condensate storage tank level decreases to five feet above the bottom of the tank. This corresponds to 10,000 gallons of water available in the tank. This value was chosen to duplicate the automatic transfer of the high pressure coolant injection (HPCI) system from the condensate storage tank to the suppression pool on low condensate storage tank level. Since this change converts a manually-opened, containment isolation valve (i.e., MO 13-41) to an automatically-opened

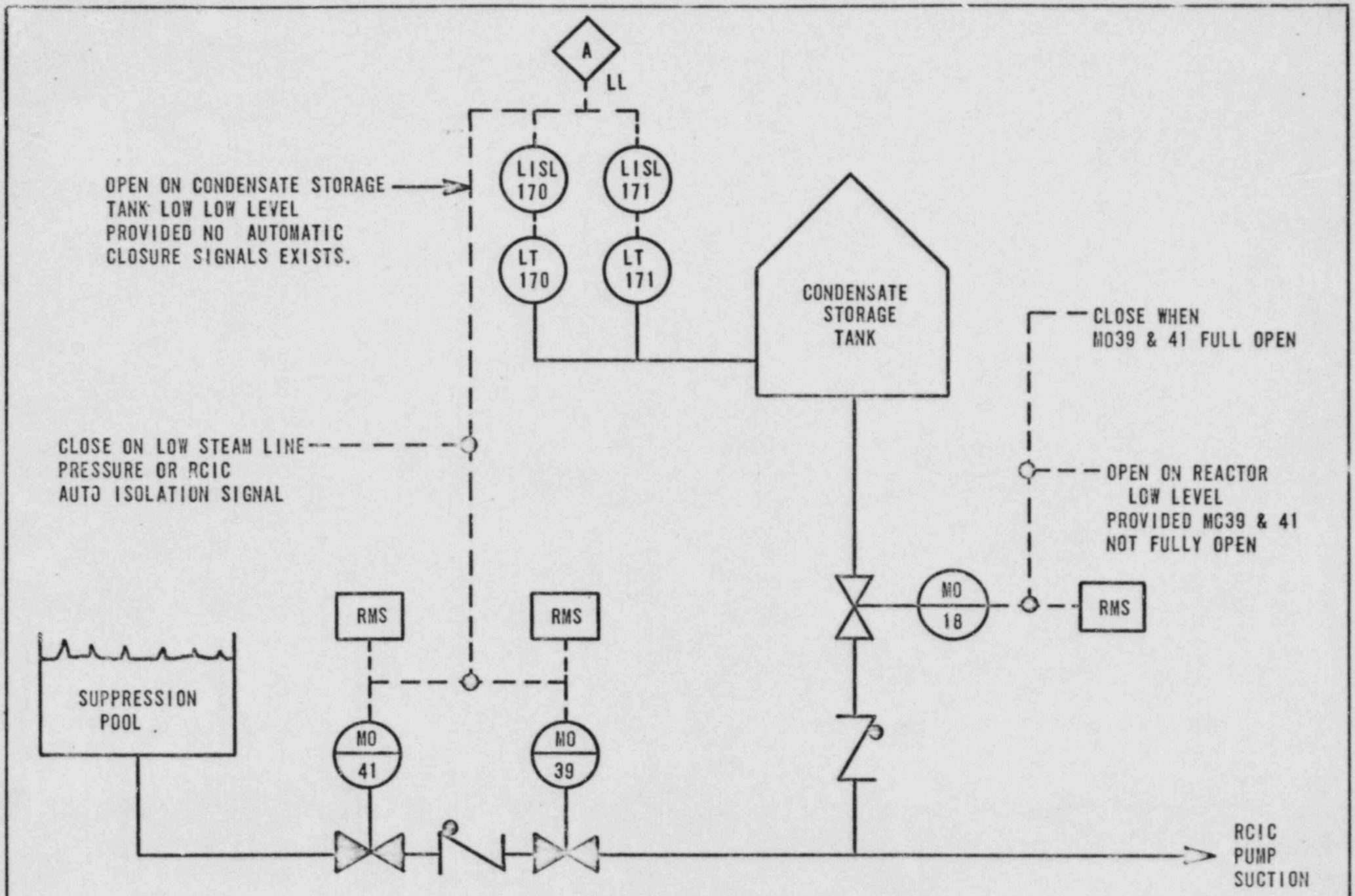
valve, the valve control circuit will include a signal to close the valve whenever an RCIC isolation signal or a low RCIC steam line pressure signal is present. These signals will also close valve MO 13-39.

The new instruments will be physically separated from condensate storage tank level switches LS 23-74 and 23-75, which are used for the HPCI system automatic transfer. The same standpipe used for the HPCI instruments is being used for the new RCIC instruments since the probability of blockage of this two inch line is considered to be low. A further consideration that allows the use of this standpipe is the use of common suction piping from the condensate storage tank to the HPCI and RCIC systems.

The operator will be informed of low condensate storage tank level, trip unit power failure or card out of file, and trip unit in calibration mode or gross failure by modifications to the circuits of existing annunciators for these conditions.

The design of this modification is in accordance with all criteria applicable to the RCIC system, including physical and electrical independence, quality assurance, testability, operator indication, termination by deliberate operator action, and environmental qualification.

Figure 1 provides a sketch of the new RCIC suction control system.



RCIC SUCTION CONTROL SYSTEM

FIGURE 1

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Enclosure 2

NUREG 0737, Item II.K.3.28 Requirement:
Verify Qualification of Automatic
Depressurization Accumulators

NRC REQUIREMENTS

The nitrogen accumulators for the automatic depressurization system (ADS) valves shall have sufficient capacity to cycle the ADS valves open five times at design pressures. The accumulators are also required to withstand a hostile environment and still perform their function for 100 days following an accident. The licensee was requested to provide an evaluation that demonstrates the acceptability of the modification by January 1, 1982.

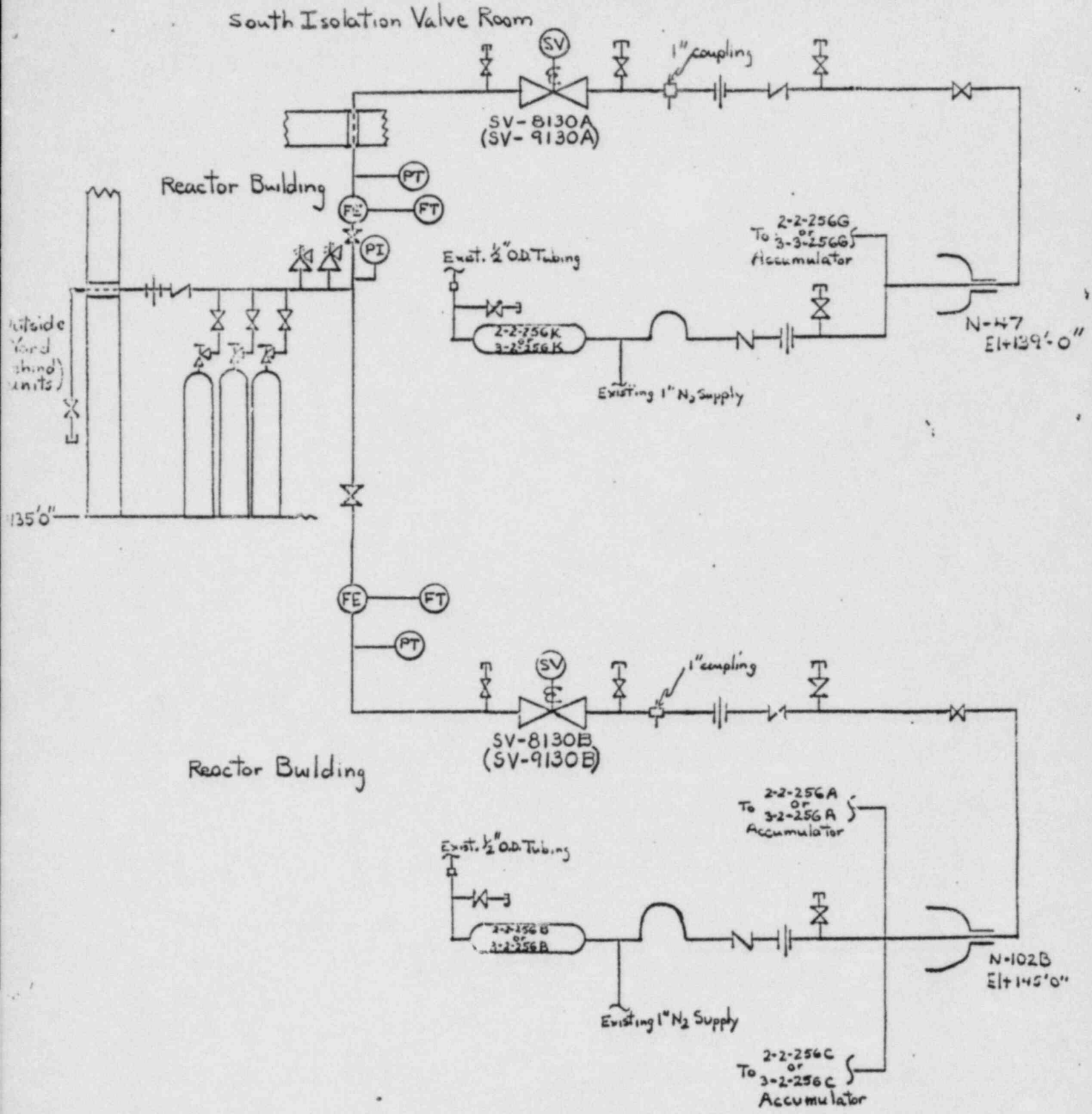
RESPONSE

A long-term safety grade pneumatic supply will be provided for the ADS valves to comply with the requirements of NUREG 0737, Item II.K.3.28. The modification is expected to be complete on Peach Bottom Unit 3 by April 30, 1982, and on Unit 2 during the refueling outage scheduled to start February 20, 1982.

A split ring header will be installed inside containment with three (3) ADS valves connected to one section of the split header and the remaining two (2) ADS valves connected to the other section of the split header. The source of safety-grade pneumatic pressure will be a series of nitrogen cylinders located within the reactor building with a connection provided outside the reactor building for the installation of additional bottles, as required.

Spare primary containment penetrations, two for each unit, will be modified to provide a permanent means of connection to each section of the new safety-grade pneumatic supply headers within each drywell. Containment isolation will be provided for each new instrument gas supply line by a check valve and an automatic isolation valve outside primary containment. The outer automatic valve (SV-8130 A,B, SV-9130 A,B) will be manually controlled from the control room and will automatically close if containment pressure exceeds pneumatic supply pressure or if gas flow becomes excessively high. In order to provide the logic for containment isolation, a pressure transmitter will be installed in each pneumatic supply and its signal compared to that of an existing drywell pressure transmitter. Flow transmitters will be installed in the supply piping to monitor for excessive flow. The automatic isolation valves associated with each ring header will be assigned to different electrical divisions.

Figure 2 provides a sketch of the new ADS accumulator nitrogen supply system.



AUTOMATIC DEPRESSURIZATION ACCUMULATOR

NITROGEN SUPPLY
FIGURE 2

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Enclosure 3

NUREG 0737, Item II.K.3.25
Effect of Loss of Alternating Current Power
on Recirculation Pump Seals

Informal discussions between the NRC staff and the BWR Owner's Group indicted that the Owner's Group position on Item II.K.3.25, "Effects of Loss of Alternating Current Power on Recirculating Pump Seals", was not adequate. The staff's concern centered on the fact that the test data referenced in the Owner's Group Report indicated a maximum pump seal leakage of 70 gpm during a total loss of seal cooling.

In response to the NRC concerns, the BWR Owner's Group directed General Electric to transmit additional test data to the NRC which demonstrates that the seal leakage is much less than 70 gpm (GE letter G-TMI-1-96 dated September 25, 1981). Subsequent discussions with the staff indicate that the transmitted data will be sufficient for their use in closing out this task.

As noted in the GE letter, each utility should confirm the applicability of the supplemental information to their plant. We have reviewed the information contained in the GE letter, conclude that it is applicable to the Peach Bottom design, and consider it appropriate for reference as part of the Peach Bottom submittal (letter dated June 29, 1981, S. L. Daltroff to D. G. Eisenhut).