Public Service
Electric and Gas
Company

Corbin A. McNeill, Jr.
Vice President -
Nuclear

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609 339-4800

January 24, 1986

Director of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20814

Attention: Ms. Elinor Adensam, Director
Project Directorate 3
Division of BWR Licensing

Dear Ms. Adensam:

SAFETY EVALUATION REPORT TECHNICAL SPECIFICATION ISSUES
HOPE CREEK GENERATING STATION
DOCKET NO. 50-354

This letter provides information to address our compliance with the HCGS SER technical specification issues listed in SER Table 16.1. Attached is a description of compliance to each SER technical specification issue which references the appropriate section of the HCGS Proof and Review Copy Technical Specification that satisfies the SER requirement.

In the case where an exception is being taken to the SER requirement; the exception is identified in the attached descriptions and the technical justification for our position is provided. Upon NRC concurrence, it is requested that the HCGS SER be modified in Supplement No. 5 to reflect the exceptions noted.

Should you have any questions in this regard, please contact us.

Sincerely,

B001
1/1

Attachment

C D.H. Wagner
USNRC Licensing Project Manager

R.W. Borchardt
USNRC Senior Resident Inspector

ATTACHMENT

HCGS SER TECHNICAL SPECIFICATION ISSUE	DESCRIPTION OF COMPLIANCE
1. Service water intake temperature	In accordance with SER Sections 2.4.11.2 and 2.4.14, HCGS T.S., Section 4.7.1.3.b.2 requires river water temperature be verified to be within its limit at least once per six hours when the river water temperature is greater than 85°F.
2. Closing of doors and hatches	In accordance with SER Section 2.4.14, HCGS T.S. Section 3.7.3.b requires that with the water level at the service water intake structure above elevation 10.5' MSL, all water tight perimeter flood doors for the intake structure and the power block, identified in T.S. Table 3.7.3-1, shall be closed within two hours. T.S. Section 4.7.3.b requires measurement of water level at the service water intake structure at least once per four hours when severe storm warnings from the National Weather Service which may impact Artificial Island are in effect, and at least once per two hours when the water level is equal to or above elevation 8.5' MSL.
3. Pressure isolation valves*	In accordance with SER Section 3.9.6, HCGS T.S. Section 3.4.3.2 specifies limiting conditions for operation which indicate an allowable leak rate of 0.5 gpm per nominal inch of valve size up to a maximum of 5 gpm at reactor operating pressure for any reactor coolant system pressure isolation valve.

*Exception to SER requirement

Valve testing at reactor operating temperature is not specified since operating system temperature cannot be obtained during outages and is not achieved until operating condition 2. T.S. Section 4.4.3.2.2 specifies the following time schedules that will initiate leak testing the pressure isolation valves: (a) at least once per 18 months, (b) prior to returning the valve to service following maintenance, repair or replacement work on the valve which could affect its leakage rate, and (c) as outlined in ASME Code, Section XI, paragraph IWV-3427(b).

HCGS T.S. Section 4.4.3.2.2 does not specify leak rate testing for systems rated at <50 percent of RCS design pressure, each time the valve has moved from its fully closed position, nor is T.S. testing specified after valve disturbances and before power operation is reached following a refueling outage maintenance, as stated in SER Section 3.9.6, as provisions have been made to continuously monitor the low pressure side of the valve for leakage or pressure increases.

As indicated in the HCGS response to Question 210.56 and as justified above, PSE&G requests that SER Section 3.9.6 be revised to delete the requirements for testing at reactor operating temperature, and for leak rate testing for systems rated at <50 percent of RCS design pressure, each time the valve has moved from its fully closed position, after valve disturbances,

		and before power operation is reached following a refueling outage maintenance. It is also requested that SER Section 3.9.6 be revised to reflect allowable leak rate criteria of 0.5 gpm per nominal inch of valve size up to a maximum of 5 gpm.
4.	Thermal-hydraulic instability	In accordance with SER Section 4.4.4, HCGS T.S. Section 3.4.1.1 restricts operation in regions of potential instability and provides surveillance and corrective actions under conditions of marginal instability.
5.	Single-loop operation	In accordance with SER Section 4.4.4, HCGS T.S. Section 3.4.1.1 prohibits single-loop operation.
6.	Crud effects	In accordance with SER Section 4.4.5, HCGS T.S. Section 4.4.1.2 specifies that core flow be checked at least once every 24 hours.
7.	Loose parts monitoring system channel operability	In accordance with SER Section 4.4.6, HCGS T.S. Sections 3.3.7.9 and 4.3.7.9 specify appropriate limiting conditions for operation and surveillance requirements to demonstrate the operability of LPMS channels.
8.	SRV test program	In accordance with SER Section 5.2.2, HCGS T.S. Section 4.4.2.2 specifies the SRV test program. T.S Section 3.4.2.1 lists the three valve groups with a minimum setpoint of 1108 psig and a maximum of 1130 psig. T.S. Table 2.2.1-1 specifies the reactor vessel steam dome pressure - high scram setpoint as $\leq$1037 psig and T.S. Section 3.4.6.2 specifies limiting conditions for operation with the reactor steam dome pressure exceeding 1020 psig. These are consistent with SER Section 5.2.2.

9.	Reactor coolant pressure boundary leakage rates	In accordance with SER Section 5.2.5, testing and calibration frequency of the drywell atmosphere noble gas monitoring system, the drywell floor and equipment drain sump monitoring system, and the drywell air cooler condensate flow monitoring system is specified in HCGS T.S. Section 4.4.3.1. Testing and calibration for the drywell pressure and temperature monitoring instrumentation will be performed in accordance with the calibration requirements of the HCGS Category B Instrument Program for Technical Specification Sections 3.6.1.6 and 3.6.1.7 Also, in accordance with SER Section 5.2.5, HCGS T.S. Section 3.4.3.2 specifies the maximum allowable identified and unidentified leakage rates as 25 gpm and 5 gpm, respectively.
10.	Reactor core isolation cooling pump testing	In accordance with SER Section 5.4.6, HCGS T.S. Section 4.7.4.a specifies that the RCIC system shall be demonstrated operable at least once per 31 days by verifying by venting at the high point vents that the system piping from the pump discharge valve to the system isolation valve is filled with water. HCGS T.S. Section 4.7.4.b specifies a full flow test at least every 92 days (testing pursuant to Specification 4.0.5) and verification that the pump develops a flow of greater than or equal to 600 gpm. HCGS T.S. Section 4.7.4.c specifies a system functional test at least once per 18 months which includes verification

		that the system develops a flow of greater than or equal to 600 gpm and includes simulated automatic actuation and verification of proper automatic valve position.
11.	RHR system pump operability	In accordance with SER Section 5.4.7, HCGS T.S. Section 4.5.1.a&b requires verification of LPCI mode operability at least once per 31 days and startup of each pump from the control room every 91 days, respectively; and HCGS T.S. Section 4.5.1.c specifies a system functional test without requiring coolant injection into the reactor vessel, at least once per 18 months.
12.	Torus/drywell vacuum breaker and vent system testing	In accordance with SER Section 6.2.1.6, HCGS T.S. Section 4.6.4.1.b specifies operational testing of the torus-to-drywell vacuum breakers at least once per 31 days; and T.S. Section 4.6.2.1.f specifies a low-pressure leakage test of the drywell-to-suppression chamber vent system at an initial differential pressure of 1 psi and verifying that the differential pressure does not decrease by more than 0.25 inch of water per minute for 10 mintues, at least once per 18 months.
13.	Vacuum breaker position indication accuracy	In accordance with SER Section 6.2.1.6, HCGS T.S. Section 4.6.4.1.b.2 specifies that vacuum breaker position indicator operability is demonstrated by visually observing expected valve movement during cycling tests at least once per 31 days, and T.S. Section 4.6.4.1.b.3 specifies that the valve opening setpoint shall be verified and a channel calibration of both position indicators shall be performed at least once per 18 months.

14.	Testing of in-leakage rate and drawdown time	In accordance with SER Section 6.2.3 and as revised in SER Supplement No. 2, Section 6.2.3, HCGS T.S. Section 4.6.5.1.c requires verification at least once per 18 months that the FRVS will draw down the secondary containment to greater than or equal to 0.25 inches of vacuum water gauge in less than or equal to 375 seconds, and that the FRVS will maintain greater than or equal to 0.25 inches of vacuum water gauge in the secondary containment at a flow rate not exceeding 3324 cfm. The 375 second drawdown time and the 3324 cfm flow rate corresponds to a secondary containment in-leakage rate of 100 percent per day as accepted in SER Supplement No. 2, Section 6.2.3.
15.	Leakage testing for valves with resilient seals	In accordance with SER Section 6.2.4.1, HCGS T.S. Section 4.6.1.8.3 requires the 26 inch drywell purge inboard isolation valve with resilient material seals, which is considered an active valve, be leak rate tested at least once per 92 days to verify that the measured leakage rate is less than or equal to 0.05 La per penetration when pressurized to Pa 48.1 psig. HCGS T.S. Section 4.6.1.8.2 requires that each sealed closed drywell and suppression chamber purge supply and exhaust isolation valve with resilient seals (passive valves) be leak rate tested at least once per six months on a staggered test basis to verify that the measured leakage rate is less than or equal to 0.05 La per penetration when pressurized to Pa 48.1 psig.

		In accordance with SER Supplement No. 2, Section 3.10.2, HCGS T.S. Section 3.6.1.8 requires that all of the drywell and suppression chamber purge supply and exhaust isolation valves are to be sealed closed during operating modes 1, 2 and 3 except the drywell purge inboard 26 inch valve and the 2 inch vent line bypass valve, which may be opened for containment pressure control. Also, in accordance with SER Supplement No. 2, Section 3.10.2, HCGS T.S. Section 4.6.1.8.1 requires that each drywell and suppression chamber purge supply and exhaust isolation valve shall be verified to be sealed closed at least once per 31 days in operating modes 1, 2 and 3.
16.	Containment isolation valve leakage	In accordance with SER Section 6.2.6(1), HCGS T.S. Section 3.6.1.2.c specifies separately an allowable leak rate of less than or equal to 11.5 scf per hour for any one main steam line through the isolation valves when tested at 5 psig (seal system delta P). See Item 17 for justification of 5 psig test pressure. In accordance with SER Section 6.2.6(3), HCGS T.S. Section 3.6.1.2.d specifies a combined allowable leakage rate of less than or equal to 10 gpm for all containment isolation valves in hydrostatically tested lines listed in T.S. Table 3.6.3-1 which penetrate the primary containment, when tested at Pa, 48.1 psig.

As specified in HCGS T.S. Section 4.6.1.2.g, leakage from these isolation valves may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate for all penetrations.

In accordance with SER Section 6.2.6(5), HCGS T.S. Table 3.6.3-1, Item 17 specifies the Traversing in-core probe (TIP) system isolation ball valves that are Type C tested. Also, in accordance with SER Section 6.2.6(5), HCGS T.S. Section 4.6.3.5 specifies that the continuity of the shear valve explosive charges shall be verified at least once per 31 days, and that at least once per 18 months the explosive squib from at least one explosive valve shall be removed such that each explosive squib in each explosive valve will be tested at least once per 90 months, and initiating the explosive squib. HCGS T.S. Section 4.6.3.5 also specifies that the replacement charge for the exploded squib shall be from the same manufactured batch as the one fired or from another batch which has been certified by having at least one of that batch successfully fired, and that no squib shall remain in use beyond the expiration of its shelf-life or operating life, as applicable.

17.	Main steam isolation valve leak rate testing*	In accordance with SER Section 6.2.6(1), 6.7 and 15.6.5.2, HCGS T.S. Section 3.6.1.2.c specifies separately an allowable leak rate of less than or equal to 11.5 scf per hour for any one main steam line through the isolation valves when tested at 5 psig (seal system delta P). The MSIV sealing system is designed to maintain the seal gas pressure 5 psi above the reactor vessel pressure. Interlocks are provided such that the sealing system motor-operated isolation valves connected to each main steam line cannot be opened when the main steam line pressure is above 20 psig. This prevents the lifting of the MSIV disk which can be unseated by a back pressure differential of 25 psi. Testing is performed when the reactor vessel is depressurized, therefore, the leak test pressure will be 5 psig. PSE&G requests that HCGS SER Section 6.2.6(1) be modified to indicate that the test pressure is 5 psig as stated in HCGS FSAR Section 6.2.4.4.
18.	Various valve leak rates	See response to Items 16 and 17.
19.	Emergency core cooling system (ECCS) sub-system flow rates	In accordance with SER Section 6.3.4.2, HCGS T.S. Section 4.5.1.b specifies that (1) the two core spray system pumps in each subsystem together develop a flow of at least 6350 gpm, (2) each LPCI pump in each subsystem develops a flow of at least 10,000 gpm, and (3) the HPCI pump develops a flow of at least 5600 gpm, when tested pursuant to Specification 4.0.5.

*Exception to SER requirement

20.	ECCS subsystem operating sequence	In accordance with SER Section 6.3.4.2, HCGS T.S. Section 4.5.1.c specifies that a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence shall be performed at least once per 18 months for the core spray system, the LPCI system, and the HPCI system. HCGS T.S. Section 4.5.1.d specifies that a system functional test for the automatic depressurization system shall be performed at least once per 18 months and includes simulated automatic actuation of the system throughout its emergency operating sequence.
21.	Water seal bucket drain tap surveillance	In accordance with SER Section 6.5.1.3, HCGS T.S. Section 4.6.5.3.a specifies that the FRVS water seal bucket traps shall be verified to have a water seal and any evaporative losses shall be made up by filling the traps to the overflow, at least once per 14 days.
22.	Testability of plant protection system at power	In accordance with SER Section 7.2.2.3, HCGS T.S. Section 4.3.1.1 specifies that each reactor protection system instrumentation channel shall be demonstrated operable by the performance of the channel check, channel functional test, and channel calibration operations for the operational conditions and frequencies shown in T.S. Table 4.3.1.1-1. HCGS T.S. Section 4.3.3.1 specifies that each ECCS actuation instrumentation channel shall be demonstrated operable by the performance of the channel checks, channel functional test, and channel calibration operations for the operational conditions and at the frequencies shown in Table 4.3.3.1-1.

		HCGS T.S. Section 4.3.1.2 and 4.3.3.2 specify logic system functional tests and simulated automatic operation of all channels at least once per 18 months for reactor protection system instrumentation and emergency core cooling system actuation instrumentation, respectively.
23.	Anticipated transients without scram mitigation*	SER Sections 7.2.2.8 and 7.6.2.2 state that the NRC staff will verify that the Technical Specifications include appropriate limiting conditions for operation and surveillance requirements on the redundant reactivity control system (RRCS). Technical Specification requirements on the RRCS are not incorporated in the BWR Standard Technical Specifications (NUREG-0123), nor has any requirement on RRCS been included on recently licensed BWR's (Limerick, River Bend). Discussions with the NRC ICSB staff and the NRC Technical Specification Review Group indicate that a generic ATWS technical specification is being developed for future inclusion in applicable plant technical specifications. HCGS has not included any technical specification requirements on the RRCS at this time. PSE&G will evaluate the generic ATWS technical specification, when issued, for applicability to HCGS. Accordingly, it is requested that SER Sections 7.2.2.8 and 7.6.2.2 be revised to delete the technical specification requirements on the RRCS.
24.	Reactor mode switch	In accordance with SER Section 7.2.2.9, HCGS T.S. Section 4.3.1.1 specifies the performance of the channel check, channel

*Exception to SER requirement

		functional test, and channel calibration operations for the IRM and APRM channels at the operational conditions and frequencies shown in T.S. Table 4.3.1.1-1, Items 1 and 2. This surveillance action ensures the reliability of the reactor mode switch.
25.	Freeze protection of water-filled lines*	SER section 7.3.2.3 states that the Technical Specifications shall include surveillance requirements for testing the environmental control and monitoring systems at least once per year before the advent of freezing weather. Since failure of the heat tracing on the condensate storage tank (CST) level sensing line would not present a limiting condition for operation of the plant, surveillance requirements for testing and monitoring the heat tracing systems has not been included in the HCGS Technical Specifications. The temperature of the process fluid in the sensing line where the sensing line is exposed to severe weather is monitored and alarmed in the main control room via the plant computer. In the event that this monitoring capability becomes unavailable, administrative procedures will provide for verification that the sensing line is not in danger of freezing. In addition, station winterization procedures will ensure that the freeze protection circuits are tested. On this basis, PSE&G requests that SER Section 7.3.2.3 be revised to remove the requirement that the Technical Specifications include surveillance requirements for testing the environmental control and monitoring systems at least once per year before the onset of freezing weather.

*Exception to SER requirement

		Upon NRC concurrence of this position, HCGS FSAR Question/Response 421.39 will also be modified to delete the description of Technical Specification surveillance requirements for the CST level sensing line heat tracing.
26.	Remote shutdown system operability	In accordance with SER Section 7.4.2.3, HCGS T.S. Section 4.3.7.4.1 specifies that the remote shutdown monitoring instrumentation listed in T.S. Table 3.3.7.4-1 shall be demonstrated operable by performance of the channel check and channel calibration operations at the frequencies shown in T.S. Table 4.3.7.4-1. HCGS T.S. Section 4.3.7.4.2 specifies that each of the remote shutdown controls (including local controls) shall be demonstrated operable by verifying its capability to perform its intended function(s) at least once per 18 months.
27.	Low-pressure/high pressure systems interlocks	In accordance with SER Section 7.6.2.1, HCGS T.S. Section 3.3.3, 4.3.3.1, and 4.3.3.2 specify limiting conditions for operation and surveillance requirements on the reactor vessel pressure low (permissive) interlocks for the core spray system valves (T.S. Tables 3.3.3-1&2 and 4.3.3.1-1, Item 1c) and the RHR LPCI system valves (T.S. Tables 3.3.3-1&2 and 4.3.3.1-1, Item 2c). HCGS T.S. Sections 3.3.2, 4.3.2.1 and 4.3.2.2 specify limiting conditions for operation and surveillance requirements on the reactor vessel pressure high (RHR cut-in permissive) interlock for the isolation valves in the RHR shutdown cooling suction line and the RHR

shutdown cooling injection line and RHR head spray line (T.S. Tables 3.3.2-1&2 and 4.3.2.1-1, Item 7b).

28. Average power range monitor electrical protection assemblies — In accordance with SER Section 7.6.2.3, HCGS T.S. Section 3.8.4.7 and 4.8.4.7 specify limiting conditions for operation and surveillance requirements, respectively, for the Class 1E EPA solid-state protective devices located in the APRM power source configuration.

29. Non-safety-related equipment operability — In accordance with SER Section 7.7.2.2, the following HCGS T.S. Sections provide limiting conditions for operation and surveillance requirements for the nonsafety-related systems/components identified.

Nonsafety-Related Systems/Components	HCGS T.S. Section
1. Vessel level 8 turbine trip	3/4.3.9 Feedwater/Main Turbine Trip Systems
2. Vessel level 8 feedwater trip instrument channel	3/4.3.9 Feedwater/Main Turbine Trip Systems
3. Turbine bypass system	3/4.7.9 Main Turbine Bypass System
4. Rod sequence control system	3.1.4.2 Rod Sequence Control System
5. Rod block monitor	3.1.4.3 Rod Block Monitor Channels
6. Instrumentation, control, electrical, and mechanical equipment associated with the relief function of the safety/relief valves	3.4.2.1 Safety/Relief Valves and 3.4.2.2 Safety/Relief Valves Low-Low Set Function

30. Diesel generator connected loads — In accordance with SER Section 8.3.1.3, HCGS T.S. Section 4.8.1.1.2.h.9 specifies the surveillance requirement to verify at least once per 18 months, during shutdown,

		that the auto-connected loads to each diesel generator do not exceed the continuous rating of 4430 kW.
31.	Load sequencer logic	In accordance with SER Section 8.3.1.7, HCGS T.S. Section 4.8.1.1.2.e specifies the surveillance requirement to perform a functional test on the emergency load sequencer to verify operability, at least once per 31 days.
32.	DC system monitoring	In accordance with SER Section 8.3.2.7, HCGS T.S. Section 4.8.2.1 specifies the surveillance requirements to assure that the Class 1E dc power system is operable and ready to perform its intended safety function.
33.	Testing of breaker time-overcurrent trip characteristics	In accordance with SER Section 8.3.3.3.5, HCGS T.S. Section 3.8.4.5 and 4.8.4.5 specify the limiting conditions for operation and surveillance requirements for all Class 1E isolation breaker (tripped by a LOCA signal) overcurrent protective devices.
34.	Periodic system testing	In accordance with SER Section 8.3.3.4.1, (1) HCGS T.S. Section 4.8.1.1.1 specifies the surveillance requirements and frequency of testing to demonstrate that Class 1E loads can operate on the preferred power supply, (2) Section 4.8.1.1.2.h.6.a specifies the surveillance requirements and testing frequency to demonstrate that the loss of the preferred power supply can be detected, (3) Sections 4.8.1.1.2.h.4.b), 4.8.1.1.2.h.5, and 4.8.1.1.2.h.6.b) specify the surveillance requirements and testing frequencies to demonstrate that the standby power supply can be started

		and can accept design load within the design-basis time, and (4) Sections 4.8.1.1.1, 4.8.1.1.2.h.4, and 4.8.1.1.2.h.6 specify the surveillance requirements and testing frequencies to demonstrate that the standby power supply is independent of the preferred power supply.
35.	Load sequencer testing	In accordance with SER Section 8.3.3.4.2, HCGS T.S. Section 4.8.1.1.2.e specifies testing of the automatic load sequencer at least once per 31 days and Section 4.8.1.1.2.h.13 specifies testing of the automatic load sequence timer at least once per 18 months, during shutdown.
36.	Testing of fuses*	SER section 8.3.3.5.4 requires that testing of primary containment penetration conductor overcurrent protective device fuses be performed at least once every 18 months as specified in the Standard Technical Specifications. This surveillance requirement is intended to demonstrate the operability of the fuses by specifying a non-destructive functional test which measures the resistance of the fuses to verify the resistances are within the manufacturer's design criteria. The physical nature of fuses precludes the type of non-destructive testing required as well as eliminates the necessity of performance testing. Surveillance testing is appropriate for active overcurrent protective devices (such as circuit breakers) as they can potentially degrade due to such phenomena as corrosion or deformation of the components or "sticking" of the electrical contacts. Surveillances provide a real measure of assurance that

*Exception to SER requirement

these devices are operable. In contrast, a "calibrated" fuse is a passive component consisting merely of a conductor constructed of a material of known electrical properties which has been built to prescribed physical dimensions and sealed in a container. Therefore, because of the basic nature of their design, fuses are inherently simple, passive devices that are highly reliable; furthermore, if they do fail, it is not likely to be in the unsafe direction. This claim of high reliability is further substantiated by WASH-1400, October 1975, which determined that a conservative probability of a single fuse failure to open is 1E-5/demand. It must be recognized that when a single fuse is connected in series with a mechanical breaker (probability of failure to open of 4E-4/demand, Reference: IEEE 500-1977), the combined probability of failure to open for the circuit is 4E-9/demand. When two fuses protect the circuit, the probability is 1E-10/demand. Even taking into account the total number of circuits involved and the frequency of demands, the combined proability of occurence for a failure to protect a containment penetration on demand is so low as to preclude a necessity for routine fuse surveillance. Furthermore, PSE&G does not believe that there is an effective surveillance test that could be applied to fuses to verify the reliability of the fuse to protect primary containment penetrations. Futhermore, surveillance testing of fuses poses an additional administrative burden on plant operations without providing any added assurance of safe plant operation.

		In summary, PSE&G has concluded that no justification exists for implementing a requirement for surveillance of fuses and therefore, requests that SER Section 8.3.3.5.4 be revised to delete this Technical Specification requirement. Upon NRC concurrence of this position, HCGS FSAR Question/Response 430.48 will also be modified to delete the description of Technical Specification provision for testing of fuses.
37.	Fuel pool cooling system pumps*	SER Section 9.1.3 states that the fuel pool cooling system pumps will be tested every 30 days if they have not been used within the previous 30 days, and that this is to be incorporated into the plant Technical Specifications. Since no credit has been taken for the fuel pool cooling system pumps in the accident analyses described in FSAR Chapter 15, testing of the fuel pool cooling system pumps has not been included in the HCGS Technical Specifications. Loss of these pumps does not present a limiting condition for plant operation as the RHR system and the service water system are designed to provide backup cooling and makeup water, respectively. Both the RHR and the service water systems are included in the HCGS Technical Specifications. Also, as stated in response to FSAR Question 410.53, the spent fuel cooling system does not perform a specific function in shutting down the reactor or in mitigating the consequences of an accident; therefore, the system does not need to be included in

*Exception to SER requirement

		the ASME B&PV Code Section XI testing. On this basis, PSE&G requests that SER Section 9.1.3 be revised to remove the requirements to test the fuel pool cooling system pumps every 30 days, and that this testing be included in the plant Technical Specifications.
38.	Station service water pump testing	In accordance with SER Section 9.2.1, HCGS T.S. Section 4.7.1.2 specifies functional testing and inspection of the station service water system in accordance with the Standard Technical Specifications.
39.	Safety auxiliaries cooling system and reactor auxiliaries cooling system pump availability*	In accordance with SER Section 9.2.2, HCGS T.S. Section 4.7.1.1 specifies tests and inspections for the SACS pumps. As stated in HCGS FSAR Section 9.2.8.3, the RACS has no safety-related function and is not required to be operable following a LOCA. Therefore, Technical Specifications for the RACS pumps are not required. PSE&G requests that HCGS SER Section 9.2.2 be modified to indicate that availability of the SACS pumps only is delineated in the plant technical specifications.
40.	Safety auxiliaries operability to ensure diesel generator cooling	In accordance with SER Section 9.2.2 and 9.5.5, HCGS T.S. Section 3.7.1.1 specifies limiting conditions for operation in the event of a complete failure of a SACS loop, partial failure of both SACS loops, or partial failure of either SACS loop.
41.	Control and chilled water system availability*	SER Section 9.2.7 specifies that availability of the control area chilled water system (CACWS) is ensured by periodic functional tests and inspections as delineated

*Exception to SER requirement

		in the plant Technical Specifications. HCGS Technical Specifications Section 4.7.2.a requires that the control room air temperature be verified to be less than or equal to 85°F at least once per 12 hours. A failure of the CACWS would be detected when this surveillance is performed. The requirement for a Technical Specification related to a control area chilled water system does not exist in the Standard Technical Specifications. PSE&G feels that a specific Technical Specification for the CACWS is not required because its operability is indirectly verified by Technical Specification Surveillance Requirement 4.7.2.a. It is requested that HCGS SER Section 9.2.7 be revised to delete the requirement for a Technical Specification for the CACWS.
42.	Air quality testing*	The instrument air system is not included in the Standard Technical Specifications nor is it included in the Technical Specifications for other BWR plants (e.g., Limerick, Susquehanna). The requirement for testing the air quality has no limiting condition for operation of the plant. The periodic testing of the air quality to ensure compliance with the requirements of ANSI Std. MC11.1-1976 is included in the plant operating procedures, as described in FSAR Section 9.3.1.4 and Question/Response 410.87. PSE&G requests that HCGS SER Sections 9.3.1 and 9.3.6 be revised to delete the statement that testing of the air systems should be incorporated into the plant Technical Specifications.

*Exception to SER requirement

43.	Core damage estimate procedure	This is SER Confirmatory Item No. 31, and there is no technical specification impact. PSE&G requests that this item be deleted from SER Table 16.1.
44.	Fire watch	In accordance with SER Section 9.5.1.5, HCGS T.S. Section 3.3.7.8 specifies limiting conditions for operation and action statements that require repair of the detection instruments and establishment of a fire watch patrol to inspect the effected zones.
45.	Turbine steam valve inspection*	In accordance with SER Section 10.2, HCGS T.S. Section 4.3.8.2.d specifies the surveillance requirements to dismantle and inspect one of each type of turbine steam valve at least once per 40 months, and Section 4.3.8.2.a specifies that the low pressure combined intermediate valves (CIVs) and the high pressure main stop valves (MSVs) shall be cycled through at least one complete cycle from the running position, at least once per seven (7) days. Pursuant to HCGS T.S. Section 4.3.8.2.b, each of the four high pressure turbine control valves (TCVs) shall be cycled through at least one complete cycle from the running position at least once per 31 days. This deviation from the BWR Standard Technical Specifications (i.e., requiring the TCVs to be cycled monthly rather than weekly) is based on General Electric Services Information Letter (SIL) No. 413. This SIL concludes that the excellent reliability record of these valves justifies this change in the frequency of TCV surveillance testing.

*Exception to SER requirement

		Furthermore, observation of CIV, MSV and TCV movement during testing will not be performed due to ALARA considerations. PSE&G requests that SER Section 10.2 be modified to reflect a monthly testing frequency for the TCVs in lieu of a weekly testing frequency and that the observation of CIV, MSV and TCV movement during testing be deleted from SER Section 10.2.
46.	Turbine bypass valve surveillance*	In accordance with SER Section 10.4.4, HCGS T.S. Section 4.7.9.a specifies that each turbine bypass valve shall be cycled through at least one complete cycle, at least once per 31 days. This change to the BWR Standard Technical Specifications (i.e., allowing the turbine bypass valves to be tested monthly rather than weekly) is based on General Electric Services Information Letter (SIL) No. 413 which concludes that the excellent reliability record of these valves justifies this change in the frequency of surveillance testing of the turbine bypass valves. Also, in accordance with SER Section 10.4.4, HCGS T.S. Section 4.7.9.b.1 specifies that a system functional test which includes simulated automatic actuation and verification that each automatic valve actuates to its correct position, shall be performed at least once per 18 months. HCGS FSAR Question/Response 430.167 has been revised to indicate monthly testing of turbine bypass valves. It is requested that SER Section 10.4.4 be modified to reflect monthly testing of these valves in lieu of weekly testing.

*Exception to SER requirement

47.	Turbine bypass system and level 8 high water trip performance	In accordance with SER Section 15.2, HCGS T.S. Section 3.7.9 specifies required availability of the turbine bypass system and Section 4.7.9 specifies surveillance requirements for the turbine bypass system equipment and system response times. In addition, HCGS T.S. Section 3.3.9 specifies required availability of the level 8 high-water trip instrumentation and the setpoints as shown in T.S. Table 3.3.9-2; and Section 4.3.9.1 and 4.3.9.2 specify surveillance requirements for this instrumentation at the frequencies shown in T.S. Table 4.3.9.1-1.
48.	Scram speed	In accordance with SER Section 15.4.9, HCGS T.S. Section 3.1.3.3 specifies an average scram insertion time of 3.49 seconds from position 05, whereas the General Electric Company report NEDO-10527, "Rod Drop Accident Analysis for Large Boiling Water Reactors" used a value 5.00 seconds. Therefore, the Technical Specification requirement of 3.49 seconds is conservative based on the rod drop accident analysis.
49.	Primary coolant activity	In accordance with SER Section 15.6.4, HCGS T.S. Section 3.4.5 specifies limiting conditions for operation for the reactor coolant system specific activity, and T.S. Section 4.4.5 specifies surveillance requirements to demonstrate the reactor coolant specific activity is within limits by performance of the sampling and analysis program of T.S. Table 4.4.5-1.
50.	Main steam isolation valve closure time	In accordance with SER Section 15.6.4, HCGS T.S. Section 3.4.7 specifies that the

		maximum closure time of main steam isolation valves is 5.0 seconds. Therefore, the T.S. are conservative with respect to the analysis which used a value of 5.5 seconds.
51.	SRV failure reporting*	In accordance with SER Section 15.9.3, Item II.K.3.3, HCGS T.S. Section 6.9.1.5.b requires all challenges to main steamline safety/relief valves be documented in the annual report. The requirement to report safety/relief valve failures within 30 days has not been incorporated into the T.S. as this reporting requirement is contained in 10 CFR 50.73 - Licensee Event Report System. PSE&G requests that SER Section 15.9.3, Item II.K.3.3 be modified to delete the T.S. requirement to report SRV failures within 30 days.
52.	Automatic depressurization system (ADS) logic	In accordance with SER Section 15.9.3, HCGS T.S. Section 3/4.3.3, ECCS Actuation Instrumentation, provides technical specifications for the ADS drywell pressure bypass timer and the manual inhibit switch as specified in T.S. Table 3.3.3-1, 3.3.3-2, and 4.3.3.1-1, Item 4 (g) and (h).
53.	Cathodic protection system testing* (This item has been added to SER Table 16.1)	HCGS SER Section 9.5.4.2 requires that the diesel engine fuel oil transfer piping cathodic protection system be tested and inspected in accordance with PSE&G maintenance department procedures and plant Technical Specifications. PSE&G will test and inspect the cathodic protection system in accordance with maintenance department procedures. However, inspection and testing of this system should not be performed under the auspices

*Exception to SER requirement

		of the plant Technical Specifications as the buried portion of the transfer piping is not considered safety related piping and is isolated from the fill connection located inside the diesel generator building by a locked closed isolation valve also located inside the building. PSE&G requests that HCGS SER 9.5.4.2 be revised to delete the Technical Specification requirement for testing and inspection of the cathodic protection system. Upon NRC concurrence of this position, HCGS FSAR Question/Response 430.80 will also be revised to delete the Technical Specification commitment for the cathodic protection system.
54.	Control rod drive testing (This item has been added to SER Table 16.1)	In accordance with SER Section 4.6, (1) HCGS T.S. Section 4.1.3.1.2.a specifies that each control rod that is withdrawn and not required to have their directional control valves disarmed electrically or hydraulically shall be demonstrated OPERABLE by moving each control rod at least one notch at least once per 7 days, (2) HCGS T.S. Section 4.1.3.2 specifies that the maximum scram insertion time of the control rods shall be demonstrated for all control rods prior to exceeding 40% of rated thermal power following core alterations (one of which is refueling) or after the reactor is shutdown for greater than 120 days.
55.	Conductivity, pH and chloride concentration of reactor coolant (This item has been added to SER Table 16.1)	In accordance with SER Section 5.4.8, the HCGS T.S. Section 3.4.4 specifies the limits of conductivity, pH and chloride concentration in the reactor coolant in accordance with the recommendations of R.G.1.56, Revision 1 (July 1978).

HCGS T.S. Section 3.4.4 also specifies the surveillance requirements and limiting conditions for operation for the chemistry of the reactor coolant and the actions to be taken when the limits of the conductivity, pH, or chloride concentration in the reactor coolant are exceeded.