GPU Nuclear

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May 15, 1984

Director, Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Technical Specification Change Request No. 119

Pursuant to your correspondence of October 1, 1980 concerning long-term scram system reliability, the Oyster Creek Nuclear Generating Station scram discharge volume has been modified. Our letters of July 13, 1983 and December 21, 1983 provided Technical Specification Change Request (TSCR) No. 119 in support of this modification and our December 21, 1983 letter indicated that upon completion of as-built system testing, the final trip settings of Table 3.1.1 would be submitted.

Our previous letters were provided to initiate, in accordance with the Confirmatory Order dated June 24, 1983, NRC review of the proposed TSCR in order to ensure its approval prior to plant start-up from the current outage. At the time of our latest letter, the scram discharge volume modification had not progressed to the point where as-built scram discharge instrument volumes corresponding to the instrument setpoint levels could be measured. As a result, scram discharge instrument volume design estimates were provided in order to facilitate NRC review.

The final setpoint values provided on attached Technical Specification pages 3.1-7, 3.1-11 and 3.1-14 ensure that even considering the maximum design scram valve leakage, sufficient scram discharge volume will be available to permit 137 control rods to scram, if required. Since there is sufficient free volume remaining in the scram header piping to accommodate a scram with the setpoints established, the Significant Safety Hazards Analysis, provided by our submittal of December 21, 1983, is not altered. In addition, line No. 5 on page 3.1-7 of Table 3.1.1 which was forwarded by our July 13, 1983 letter accounted for both new scram discharge instrument volumes (SDIV). As such, the number in the column headed 'Min. No. of Instrument Channels Per

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Operable Trip System' was four (4). Line No. 5 on Page 3.1-7 of Table 3.1.1 was modified in our submittal dated December 21, 1983 when each SDIV was accounted for separately. Consequently, the number in the above-referenced column should have been changed to two (2) for each SDIV, but was not. Therefore, please replace pages 3.1-7, 3.1-11 and 3.1-14 of TSCR No. 119 with the attached Technical Specification pages. Should you have any questions, please contact Mr. Michael Laggart at (201) 299-2341.

Very truly yours,

Peter B. Fiedler
Vice President and Director
Oyster Creek

PBF/dam
Enclosures

cc: Administrator
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isolation, initiate automatic depressurization in conjunction with low-low-low-reactor water level, initiate the standby gas treatment system and isolate the reactor building. The scram function shuts the core down during the loss-of-coolant accidents. A steam leak of about 15 gpm and a liquid leak of about 35 gpm from the primary system will cause drywell pressure to reach the scram point; and, therefore the scram provides protection for breaks greater than the above.

High drywell pressure provides a second means of initiating the core spray to mitigate the consequences of a loss-of-coolant accident. Its set point of 2 psig initiates the core spray in time to provide adequate core cooling. The break-size coverage of high drywell pressure was discussed above. Low-low water level and high drywell pressure in addition to initiating core spray also causes isolation valve closure. These settings are adequate to cause isolation to minimize the offsite dose within required limits.

It is permissible to make the drywell pressure instrument channels inoperable during performance of the integrated primary containment leakage rate test provided the reactor is in the cold shutdown condition. The reason for this is that the Engineered Safety Features, which are effective in case of a LOCA under these conditions, will still be effective because they will be activated by low-low reactor water level.

The scram discharge volume has two separate instrument volumes utilized to detect water accumulation. The high water level is based on the design that the water in the SDIV's, as detected by either set of level instruments, shall not be allowed to exceed 29.0 gallons; thereby, permitting 137 control rods to scram. To provide further margin, an accumulation of not more than 14.0 gallons of water, as detected by either instrument volume, will result in a rod block and an alarm. The accumulation of not more than 7.0 gallons of water, as detected in either instrument volume will result in an alarm.

Detailed analyses of transients have shown that sufficient protection is provided by other scrams below 45% power to permit bypassing of the turbine trip and generator load rejection scrams. However, for operational convenience, 40% of rated power has been chosen as the setpoint below which these trips are bypassed. This setpoint is coincident with bypass valve capacity.

A low condenser vacuum scram trip of 23" Hg has been provided to protect the main condenser in the event that vacuum is lost. A loss of condenser vacuum would cause the turbine stop valves to close, resulting in a turbine trip transient. The low condenser vacuum trip anticipates this transient and scrams the reactor. The condenser is capable of receiving bypass steam until 7" Hg vacuum thereby mitigating the transient and providing a margin.

Function	Trip Setting	Reactor Modes in which Function Must Be Operable: Shutdown	Refuel	Startup	Run	Min. No. of Operable or Operating [tripped] Trip systems	Min. No. of Instrument Channels Per Operable Trip Systems	Action Required*
K. Rod Block								No control rod withdrawals permitted
1. SRM Upscale	≤ 5 x 10^5 cps		X	X(1)		1	3(y)	
2. SRM Downscale	≥ 100 cps(f)		X	X(1)		1	3(y)	
3. IRM Downscale	≥ 5/125 fullscale(g)		X	X		2	3	
4. APRM Upscale	**		X(s)	X	X	2	3(c)	
5. APRM Downscale	≥ 2/150 fullscale				X	2	3(c)	
6. IRM Upscale	≤ 108/125 fullscale		X	X		2	3	
7. a) water level high scram discharge volume North	≤ 14 gallons		X(z)	X(z)	X(z)	1	1 per instrum. volume	
b) water level high scram discharge volume South	≤ 14 gallons		X(z)	X(z)	X(z)	1	1 per instrum. volume.	
L. Condenser Vacuum Pump Isolation								Insert Control Rods
1. High Radiation in Main Steam Tunnel	≤ 10 x Normal background		During Startup and Run when vacuum pump 1 operating			2	2	

TABLE 3.1.1 PROTECTIVE INSTRUMENTATION REQUIREMENTS

Function	Trip Setting	Reactor Modes in which Function Must Be Operable: Shutdown	Refuel	Startup	Run	Min. No. of Operable or Operating [tripped] Trip systems	Min. No. of Instrument Channels Per Operable Trip Systems	Action Required*
A. Scram								Insert control rods
1. Manual Scram		X	X	X	X	2	1	
2. High Reactor Pressure	**		X(s)	X	X	2	2	
3. High Drywell Pressure	≤ 2 psig		X(u)	X(u)	X	2	2	
4. Low Reactor Water Level	**		X	X	X	2	2	
5. a. High Water Level in Scram Discharge Volume North Side	≤ 29 gal.		X(a)	X(z)	X(z)	2	2	
b. High Water Level in Scram Discharge Volume South Side	≤ 29 gal.		X(a)	X(z)	X(z)	2	2	
6. Low Condenser Vacuum	≥ 23" hg.		X(b)	X(b)	X	2	2	