

OYSTER CREEK NUCLEAR GENERATING STATION
PROVISIONAL OPERATING LICENSE NO. DPR-16
DOCKET NO. 50-219
TECHNICAL SPECIFICATION CHANGE REQUEST NO. 119

Pursuant to 10CFR50.91, an analysis concerning significant hazards considerations is provided below:

1. Section to be changed:

3.1

2. Extent of change:

Scram Dump Volume (SDV) modifications were performed at the Oyster Creek Nuclear Generating Station in accordance with the BWR Owner's Group recommendations in response to IE Bulletin 80-17 and its supplements.

As a result of providing two SDV instrument volumes to monitor water accumulation, the high water level scram and rod block set points have been changed. Section 3.1 has been modified to reflect these changes.

3. Changes requested:

Per the attached Technical Specification pages 3.1-4, 3.1-7 and 3.1-11.

4. Discussion:

The NRC presented their criteria for the modification of the scram discharge system in their letter of December 1, 1980. Our letters to the NRC dated December 17, 1980, March 4, 1981 and April 30, 1981 confirm that the SDV modification at the Oyster Creek Nuclear Generating Station will be in compliance with the NRC criteria.

The modification will ensure that there is sufficient volume available in the SDV to allow all 137 control rods to scram in the event that plant conditions warrant this action. The subject modification will enhance the safety of the plant, thereby, providing a greater degree of protection for the health and safety of the public.

5. Determination:

We have determined that the subject change request involves no significant hazards in that operation of the Oyster Creek Nuclear Generating Station in accordance with Technical Specification Change Request No. 119 would not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- 2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- 3) Involve a significant reduction in a margin of safety.

OYSTER CREEK NUCLEAR GENERATING STATION
(DOCKET NO. 50-219)
PROVISIONAL OPERATING LICENSE NO. DPR-16

Applicant hereby requests the Commission to change Appendix A to the above captioned license as follows:

1. Section to be changed:

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isolation, initiate automatic depressurization in conjunction with 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 setting is based on the design that 18.36 gallons (60 inches) of water detected by either set of level instruments will permit the 137 control rods to scram. To provide further margin, an accumulation of 9 gallons (30 inches) of water in either instrument volume will result in a rod block and an alarm, while an accumulation of 3.76 gallons (12.75 inches) in either instrument volume results 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.

TABLE 3.1.1 PROTECTIVE INSTRUMENTATION REQUIREMENTS

Function	Trip Setting	Reactor Modes in which Function Must Be Operable				Min. No. of Operable or Operating (Tripped) Trip Systems	Min. No. of Operable Instrument Channels Per Operable Trip Systems	Action Required
		Shutdown	Refuel	Startup	Run			
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. High Water Level in Scram Discharge Volume	≤ 18.36 gal.		X(a)	X	X	2	4	
6. Low Condenser Vacuum	≥ 23" Hg.		X(b)	X(b)	X	2	2	
7. High Radiation in Main Steam Line Tunnel	≤ 10 x normal background		X(s)	X	X	2	2	
8. Average Power Range Monitor (APRM)	**		X(c,s)	X(c)	X(c)	2	3	
9. Intermediate Range Monitor (IRM)	**		X(d)	X(d)		2	3	

TABLE 3.1.1 PROTECTIVE INSTRUMENTATION REQUIREMENTS (CONTD)

Function	Trip Setting	Reactor Modes in which Function Must be Operable				Min. No. of Operable or Operating (Tripped) Trip Systems	Min. No. of Operable Instrument Channels Per Operable Trip Systems	Action Required*
		Shutdown	Refuel	Startup	Run			
<u>Rod Block</u>								
1. SRM Upscale	5 x 10 ⁵ cps		X	X(1)	1	3(y)	No control rod withdrawals permitted	
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. Scram Discharge Volume a) Water level high	9 gallons		X(z)	X(z)	X(z)	1		1 per. instru. volume
<u>Condenser Vacuum Pump Isolation</u>								
1. High Radiation in Main Steam Tunnel	10 x Normal Background			During Startup and Run when vacuum pump 1 operating		2	2	Insert control rods
<u>Diesel Generator Load Sequence Timers</u>								
1. Containment Spray Pump	Time delay after energiz. of relay 40 sec ± 15%	X	X	X	X	2(m)	1(n)	Consider containment spray loop inoperable and comply with spec. 3.4.C (see Note q)