

ATTACHMENT A

CHANGE NO. 97 TO THE TECHNICAL SPECIFICATIONS

LICENSE NO. DPR-3

YANKEE ATOMIC ELECTRIC COMPANY

DOCKET NO. 50-29

1. Replace Sections D.2.a.(3) and (4) with the following:

"(3) At all times when the reactor is at operating temperature except for low power physics testing, sufficient boric acid shall be present in the main coolant system such that the reactor is not less than 4.3% delta k/k subcritical with the highest worth control rod stuck in the fully withdrawn position.

"(4) Sufficient boric acid will be added to the main coolant system prior to cold shutdown to maintain the cold core with all control rods inserted at least 5% delta k/k subcritical. Except for low power physics testing, this will be done before the temperature of the main coolant system has been reduced to a point where full insertion of all control rods would no longer render the reactor 4.3% delta k/k subcritical with the highest worth control rod stuck in the fully withdrawn position."

2. Replace Section D.2.b.(5) with the following:

"(5) Whenever there is a sustained outage of one of the 115 kV lines because of maintenance or fault condition, the reactor power level shall be reduced to a level consistent with three loop operation as defined in (2) above."

3. Replace Sections D.2.c.(1), (2) and (3) with the following:

"(1) At rated power, F^Nq , the nuclear heat flux hot channel factor, for the hottest point in the hottest channel shall not exceed 2.74 for zircaloy clad assemblies and 3.11 for stainless steel clad assemblies. This value shall be checked every 1000 equivalent full power hours of operation utilizing data derived from core instrumentation.

"(2) At rated power, the calculated temperature of the coolant at the exit of the hottest channel shall not exceed 647°F.

"(3) At rated power, the calculated maximum clad surface temperature in the hottest channel shall not exceed 647°F."

4. Replace Sections D.2.d.(2), (3) and (4) with the following:

"(2) The reactor shall be scrammed automatically above 15 MW electric by a low main coolant flow signal. Low flow scram will be initiated by low flow in two of four loops. When the plant is operating with three loops, the low flow trip will be initiated by low flow in any one of the three operating loops.

"(3) The reactor shall be scrammed automatically by high pressurizer water level signal set at a maximum of 200 inches before the reactor is critical.

"(4) The reactor shall not be brought to criticality at a main coolant system temperature lower than 250°F and system pressure lower than 300 psig except for scheduled low power physics testing which shall be performed in accordance with written procedures."

5. Renumber present Sections D.2.e.(4) through (12) as D.2.e.(7) through (15) respectively, and add new Section D.2.e.(6) as follows:

"(6) The reactor shall be scrammed automatically, when the power level is above 15 MWe, by two or more low steam generator level signals."

6. Replace Section D.2.e.(3) and add new Sections D.2.e.(4) and (5) as follows:

"(3) Automatic initiation of the safety injection system, pumps and valves, shall be set to operate at a main coolant pressure not less than 1700 psig.

- "(4) The minimum nitrogen overpressure on the Low Pressure Safety Injection Accumulator shall be 410 psig.
 - "(5) The Safety Injection System shall be maintained in readiness to inject borated water into the reactor at all times when the main coolant pressure is 1000 psig or higher."
7. Replace Table I "Reactor Protection Set Points" with the attached revised Table I.

107-31

REACTOR PROTECTION SET POINTS

APR 14 1972

Function	No. of Channels Required to Trip	Bypasses	Set Point Limits	Remarks:
High Start-up Rate - Reactor Scram	1 out of 2	Auto bypass above 15 MWe	5.2 sec/min - max.	Minimum reactor instrumentation 2 source range channels 2 immediate range channels
High Reactor Flux Level - Reactor Scram	2 out of 5 or 6	None	Neutron flux corresponds to 138% rated power - max.	Minimum of 4 operable channels required for reactor operation
Low Main Coolant Pressure - Reactor Scram	1 of 1 (single) 1 out of 2	Auto bypass below 15 MWe	1800 psig - min.	
Low Main Coolant Flow - Reactor Scram	2 out of 4	Auto bypass below 15 MWe	50% of normal main coolant flow in any loop - min.	
High Pressurizer Water Level - Reactor Scram	1 out of 3 1 out of 1	Manual	200 inches - max	In service before reactor is critical
Manual - Reactor Scram	Not Applicable	None	Available any time	
Turbine Trip - Reactor Scram	Not Applicable	Auto bypass below 15 MWe	Usual Turbine Trip set points	Turbine trip scrams reactor and trips generator above 15 MWe
Generator Trip - Reactor Scram	Not Applicable	Auto bypass below 15 MWe	Usual Generator Trip set points	Generator trip scrams reactor and trips turbine above 15 MWe
Steam Generator Low Water Level - Reactor Scram	2 out of 3 or 2 out of 4	Auto bypass below 15 MWe	Not lower than 15 inches below normal water level	
Manual Turbine Generator Trip - Reactor Scram	Not Applicable	Auto bypass below 15 MWe	Available any time above 15 MWe	
Safety Injection Operation	1 out of 2	Manual	1700 psig main coolant pressure - min (motorized valves and safety injection pumps operate)	During normal operation system is set for automatic initiation. Safety injection may be initiated manually at any time.
Pressurizer Safety Valve Operation	Not Applicable	None	2485 psig, No. 1 valve - max. 2560 psig, No. 2 valve - max.	
Vapor Container Outgoing Line Trip - Valve Operation	1 out of 2	None	5 psig vapor container pressure - max.	Closes trip valves in outgoing lines in vapor container
Main Coolant Valve Interlock	Not Applicable	None	30°F temperature differential - max	Prevent any isolated loop from being placed into operation in the loop temperature is more than 30°F lower than highest cold leg temperature in the remaining loops

NOTE: Reactor scram always initiates turbine and generator trip