

Attachment A

Remove

3.1-4b

3.1-4e

-

3.5-3

Insert

3.1-4b

3.1-4e

3.1-4f

3.5-3

3.1.1.5 Pressurizer

Whenever the reactor is at hot shutdown or critical the pressurizer shall have at least 100 kw of heaters operable and a water level maintained between 10.6% and 87% of level span. If the pressurizer is inoperable due to heater or water level, restore the pressurizer to operable status within 6 hrs. or have the RHR system in operation within an additional 6 hrs.

Bases:

The plant is designed to operate with all reactor coolant loops in operation and maintain the DNBR above 1.30 during all normal

Temperature requirements for the steam generator correspond with measured NDT for the shell and allowable thermal stresses in the tube sheet.

Each of the pressurizer code safety valves is designed to relieve 288,000 lbs. per hr. of saturated steam at the valve setpoint. Below 350°F and 350 psig in the reactor coolant system, the residual heat removal system can remove decay heat and thereby control system temperature and pressure. If no residual heat were removed by any of the means available, the amount of steam which could be generated at safety valve relief pressure would be less than half the valves' capacity. One valve, therefore, provides adequate defense against overpressurization.

The power operated relief valves (PORVs) operate to relieve RCS pressure below the setting of the pressurizer code safety valves. These relief valves have remotely operated block valves to provide a positive shutoff capability should a relief valve become inoperable. The electrical power for both the relief valves and the block valves is capable of being supplied from an emergency power source to ensure the ability to seal this possible RCS leakage path. The requirement that 100 kw of pressurizer heaters and their associated controls be capable of being supplied electrical power from an emergency bus provides assurance that these heaters can be energized during a loss of offsite power condition to maintain natural circulation at hot shutdown and during

cooldown.⁽³⁾ The pressurizer low level limit of 10.6% is the level below which the heaters are de-energized to prevent damage.

References

- (1) FSAR Section 14.1.6
- (2) FSAR Section 7.2.3
- (3) Letter from L. D. White, Jr. to D. L. Ziemann, USNRC, dated October 17, 1979

TABLE 3.5-1
INSTRUMENT OPERATION CONDITIONS

NO. FUNCTIONAL UNIT	1	2	3	4	5	6
	NO. of CHANNELS	NO. of CHANNELS TO TRIP***	MIN. OPERABLE CHANNELS	MIN. DEGREE OF REDUNDANCY	PERMISSIBLE BYPASS CONDITIONS	OPERATOR ACTION IF CONDITIONS OF COLUMN 3 OR 5 CANNOT BE MET
1. Manual	2	1	1	-*		Maintain hot shutdown
2. Nuclear Flux Power Range	4	2	3	2	2 of 4 power range channels greater than 8% F.P. (low setting only)	Maintain hot shutdown
	4	2	3	2		
3. Nuclear Flux Intermediate Range	2	1	1	-*	2 of 4 power range channels greater than 8% F.P.	Maintain hot shutdown. Note 1
4. Nuclear Flux Source Range	2	1	1	-*	1 of 2 intermediate range channels greater than 10 ⁻¹⁰ amps.	Maintain hot shutdown. Note 1
5. Overtemperature T	4	2	3	2		Maintain hot shutdown
6. Overpower T	4	2	3	2		Maintain hot shutdown
7. Low Pressurizer Pressure	4	2	3	2		Maintain hot shutdown
8. Hi Pressurizer Pressure	3	2	2	1		Maintain hot shutdown
9. Pressurizer-Hi Water Level	3	2	2	1		Maintain hot shutdown
10. Low Flow in one loop (> 50% F.P.)	3/loop	2/loop (any loop)	2	1		Maintain hot shutdown
	3/loop	2/loop (any loop)	2	1		Maintain hot shutdown

3.5-3

Amendment No. 14
PROPOSED

Attachment B

The current specification on pressurizer water level states that the pressurizer level shall be maintained between 12 and 87%. The upper limit is based on a high level trip setpoint with sufficient margin to account for reference leg heatup. There is no basis for the 12% lower limit. Since low pressurizer heaters are de-energized at 10.6%, a more appropriate value would be 10.6%.

The P-10 permissive allows manual blocking of the intermediate range rod stop, the intermediate range high flux trip, and low setpoint of the power range high flux trip above 10% power. These trips are used to mitigate the consequences of a rod withdrawal transient from subcritical.

The proposed Technical Specification change would allow the above trips to be bypassed (blocked) at 8% power. This change is necessary because P-7 permissive is required at 8.5% power. Since one of the inputs to P-7 comes from the same power range bistable that supplies P-10, P-10 must be actuated at 8% power to satisfy the requirements for P-7. P-7 automatically unblocks the following reactor trips: 2 loop low flow, reactor coolant pump bus undervoltage, reactor coolant pump bus underfrequency, pressurizer low pressure, and turbine trip with P-9. These trips are associated with the 130 MW which is the upper limit of heat removal while on natural circulation.

The only transient analysis which uses this trip is a slow rod withdrawal. (Boron dilution is bounded by the slow rod withdrawal.) The only effect of reducing P-10 to 8% would be that a rod withdrawal accident (RWA) starting from 8% would be terminated by high flux and overtemperature T versus the intermediate and reduced high power trips. An evaluation performed on the RWA starting from 8% and 10% for various reactivity insertion rates shows approximately the same DNBR when the RWA is initiated from 8% versus 10% power. Further, there is substantial margin between the DNBR for a RWA from 10% and the limiting RWA from 100% power. The DNBR for a RWA starting from 8% will also be greater than the DNBR for the limiting RWA started from 100% power. Therefore, reducing P-10 to 8% has negligible effect on the Ginna Safety Analysis and the minimum DNBR for all RWAs is unchanged.

Attachment C

In accordance with 10 CFR 50.91, these changes to the Technical Specifications have been evaluated against three criteria to determine if the operation of the facility in accordance with the proposed amendment would:

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.

As outlined below, Rochester Gas and Electric submits that the issues associated with this amendment request are outside the criteria of 10 CFR 50.91, and therefore, a no significant hazards finding is warranted.

The proposed change would reduce the lower pressurizer level limit from 12 to 10.6%. This does not increase the probability or consequences of an accident. This does not create a new or different accident. This does not reduce a safety margin.

The proposed change also reduces the P-10 setpoint from 10 to 8%. The evaluation done shows that for the limiting accidents, the safety margin is not significantly reduced. This change does not increase the probability or consequences of an accident. This change does not create a new or different accident.

Therefore, a no significant hazards finding is warranted for the proposed changes.

