

TABLE 3.5-1
INSTRUMENT OPERATION CONDITIONS

Page 1 of 3

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						
	Low Setting	4	2	3	2	2 of 4 power range channels greater than 10% F.P. (low setting only)	Maintain hot shutdown
	High Setting	4	2	3	2		
3.	Nuclear Flux Intermediate Range	2	1	1	*	2 of 4 power range channels greater than 10% 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 ΔT	4	2	3	2		Maintain hot shutdown
6.	Overpower ΔT	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
	Low Flow Both Loops (10-50% F.P.)	3/loop	2/loop (any loop)	2	1		Maintain hot shutdown
11.	Turbine Trip	3	2	2	1		Maintain 50% of Rated Power

3.5-6

PROPOSED

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TABLE 3.5-1 (Continued)

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
12.	Steam Flow Feedwater Flow Mismatch With Lo Steam Generator Level	2/loop	1/loop	1/loop	1/loop		Maintain hot shutdown
13.	Lo Lo Steam Generator Water Level	3/loop	2/loop	2/loop	1/loop		Maintain hot shutdown
14.	Undervoltage 4KV Bus	2/bus	1/bus	1/bus	—*		Maintain hot shutdown
15.	Underfrequency 4KV Bus	2/bus	1/bus (both busses)	1/bus	—*		Maintain hot shutdown
16.	Quadrant Power Tilt Monitor (Upper & Lower Ex-Core Neutron Detectors)	1	—*	1 or Log individual upper & lower ion chamber currents once/hr & after a load change of 10% or after 48 steps of control rod motion	—*		Maintain hot shutdown
17.	Circulating Water Flood Protection						
	a. Screenhouse	2	1	2+	—*		Power operation may be continued for a period of up to 7 days with 1 channel inoperable or for a period of 24 hrs. with two channels inoperable.
	b. Condenser	2	1	2+	—*		Power operation may be continued for a period of up to 7 days with 1 channel inoperable or for a period of 24 hrs. with two channels inoperable.

TABLE 3.5-1 (Continued)

Page 3 of 3

NO.	FUNCTIONAL UNIT	1	2	3	4	5	6
		<u>NO. OF CHANNELS</u>	<u>NO. OF CHANNELS TO TRIP***</u>	<u>MIN. OPERABLE CHANNELS</u>	<u>MIN. DEGREE OF REDUNDANCY</u>	<u>PERMISSIBLE BYPASS CONDITIONS</u>	<u>OPERATOR ACTION IF CONDITIONS OF COLUMN 3 OR 5 CANNOT BE MET</u>
18.	Loss of Voltage/ Degraded Voltage 480 Volt Safe- guards Bus	4/bus	2/bus	2/bus	*		Maintain hot shutdown or place bus on diesel generator
19.	Automatic Trip Logic including Reactor Trip Breakers	2	1	2	*		Note 2

NOTE 1: When block condition exists, maintain normal operation

F.P. = Full Power

* Not Applicable

*** If a functional unit is operating with the minimum operable channels, the number of channels to trip the reactor will be column 3 less column 4

+ A channel is considered operable with 1 out of 2 logic or 2 out of 3 logic

NOTE 2: Should one reactor trip breaker be inoperable the plant must not be in the operating mode following a six hour time period. If one of the diverse reactor trip breaker trip features (undervoltage or shunt trip attachment) on one breaker is inoperable, restore it to operable status within 48 hours or declare breaker inoperable. If at the end of the 48 hour period one trip feature is inoperable it must be repaired or the plant must not be in the operating mode following an additional six hour time period. One reactor trip breaker may be bypassed for surveillance testing provided the other reactor trip breaker is operable.

3.5-8

PROPOSED

TABLE 4.1-1 (CONTINUED)

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Test</u>	<u>Remarks</u>
25. Containment Pressure	S	R	M	Narrow range containment pressure (-3.0, +3 psig) excluded
26. Steam Generator Pressure	S	R	M	
27. Turbine First Stage Pressure	S	R	M	
28. Emergency Plan Radiation Instruments	M	R	M	
29. Environmental Monitors	M	NA	NA	
30. Loss of Voltage/Degraded Voltage 480 Volt Safeguards Bus	NA	R	M	
31. Trip of Main Feedwater Pumps	NA	NA	R	
32. Steam Flow	S	R	M	
33. T _{AVG}	S	R	M	
34. Chlorine Detector, Control Room Air Intake	NA	R	M	
35. Ammonia Detector, Control Room Air Intake	NA	R	M	
36. Radiation Detectors, Control Room Air Intake	NA	R	M	
37a. Trip Breaker Logic Channel Testing	NA	NA	M	Note 1
37b. Trip Breaker Logic Channel Testing	NA	NA	R	Note 1

TABLE 4.1-1 (CONTINUED)

	<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Test</u>	<u>Remarks</u>
38	Reactor Trip Breakers	NA	NA	M	Function test - Includes independent testing of both undervoltage and shunt trip attachment of reactor trip breakers. Each of the two reactor trip breakers will be tested on alternate months. (Staggered monthly testing)
39.	Manual Reactor Trip	NA	NA	R	Includes independent testing of both undervoltage and shunt trip circuits. The test shall also verify the operability of the bypass breaker.
40a.	Reactor Trip Bypass Breaker	NA	NA	M	Using test switches in the reactor protection rack manually trip the reactor trip bypass breaker using the shunt trip coil.
40b.	Reactor Trip Bypass Breaker	NA	NA	R	Automatically trip the under-voltage trip attachment.

NOTE 1: Logic trains will be tested on alternate months corresponding to the reactor trip breaker testing. Monthly logic testing requires tripping of the reactor trip breaker using one randomly chosen set of actuating contacts. Refueling shutdown testing of the logic circuitry will verify the operability of all sets of actuating contacts. In testing, operation of one set of contacts will result in a reactor trip breaker trip; the operation of all other sets of contacts will be verified by the use of indication circuitry.

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CA 1
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ATTACHMENT B

This proposed Technical Specification change reflects the request made in the January 9, 1987 NRC letter from Dominic C. DiIanni to Roger W. Kober concerning the "Review of Design for Automatic Shunt Trip for Reactor Trip Breakers (Generic Letter 83-28 Item 4.3)". The proposed changes incorporate on-line reactor trip breaker testing into the Technical Specifications and delete a note concerning the date on which a specification was to become effective which has subsequently passed. A detailed description of all the changes is presented on Table 1.

This change in Technical Specifications clearly is not a request for a change in the authorized power level as it is related only to operational and testing requirements of the reactor trip breakers within the plant. Further, the major possible consequence of this change that can be foreseen at this time is that over a period of time additional plant trips may occur through actions taken during monthly testing of the reactor trip breakers. However, occasional trips are considered within the normal operating conditions at a power plant.

A significant hazards analysis has been accomplished against the criteria in 10CFR50.92. Because the proposed changes constitute additional limitations and control on both operation and testing they do 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.

Therefore, Rochester Gas and Electric submits that the issues associated with this amendment request warrant a no significant hazards finding.

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TABLE 1

Detailed Technical Specification Changes

Location	Description of Change	Reason For Change
p. 3.5-6, Table 3.5-1, Page 1 of 3.	Included item 11 of table 3.5-1 on page 1 instead of page 2.	Provides consistent typing style for Table 3.5-1
p. 3.5-7, Table 3.5-1, Page 2 of 3.	Delete item 11 of table 3.5-1 from this page and add items 17a and 17b to the bottom of the page.	Provides consistent typing style for Table 3.5-1.
p. 3.5-8, Table 3.5-1, Page 3 of 3.	Delete item 17a and 17b from this page and place on page 2 of 3. Add item 19 (Automatic Trip Logic including Reactor Trip Breakers) to this page. Add note 2 to the bottom of this page. Delete 1/ at item 18 and related note from the bottom of the page.	Provides consistent typing style for Table 3.5-1. This change reflects new operating condition requirements for the reactor trip breakers and reactor trip logic. This note is required to explain fully the operator actions required if the requirement of column 3 cannot be met. Item 18 has been implemented and the effective date for the specification is now moot.
p. 4.1-7, Table 4.1-1.	Add items 37a and 37b concerning logic testing on a monthly and refueling outage basis.	This addition reflects new testing requirements in response to NRC letter 83-28.
p. 4.1-7a, Table 4.1-1.	Add item 38 concerning the testing of Reactor Trip Breakers. Add item 39 concerning the testing of the manual tripping of the reactor trip breakers. Add items 40a and 40b concerning the testing of the reactor trip bypass breakers. Add Note 1	This addition reflects new testing requirements in response to NRC letter 83-28. This addition reflects new testing requirements in response to NRC letter 83-28. This addition reflects new testing requirements in response to NRC letter 83-28. This note is required to explain the testing requirements of the logic associated with the reactor trip breakers.

THE UNITED STATES OF AMERICA

NOV 10 1964

U.S. DEPARTMENT OF JUSTICE

WASHINGTON, D.C.

TO: THE ATTORNEY GENERAL

FROM: THE DIRECTOR, FBI

SUBJECT: [REDACTED]

RE: [REDACTED]

DATE: [REDACTED]

CLASS: [REDACTED]

1. [REDACTED]

2. [REDACTED]

3. [REDACTED]

4. [REDACTED]

5. [REDACTED]

6. [REDACTED]

7. [REDACTED]

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