

St. Lucie Unit 1
Docket No. 50-335
Proposed Exigent License Amendment
Thermal Margin and RCS Flow Limits

ATTACHMENT 4

ST. LUCIE UNIT 1 MARKED-UP TECHNICAL SPECIFICATION PAGES

Page 2-1

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Revised Figure 2.1-1

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2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.1 SAFETY LIMITS

REACTOR CORE

2.1.1 The combination of THERMAL POWER, ^{*}pressurizer pressure, and maximum cold leg coolant temperature shall not exceed the limits shown on Figure 2.1-1.

APPLICABILITY: MODES 1 and 2.

ACTION:

Whenever the point defined by the combination of maximum cold leg temperature and THERMAL POWER has exceeded the appropriate pressurizer pressure line, be in HOT STANDBY within 1 hour.

REACTOR COOLANT SYSTEM PRESSURE

2.1.2 The Reactor Coolant System pressure shall not exceed 2750 psia.

APPLICABILITY: MODES 1, 2, 3, 4 and 5.

ACTION:

MODES 1 and 2

Whenever the Reactor Coolant System pressure has exceeded 2750 psia, be in HOT STANDBY with the Reactor Coolant System pressure within its limit within 1 hour.

MODES 3, 4 and 5

Whenever the Reactor Coolant System pressure has exceeded 2750 psia, reduce the Reactor Coolant System pressure to within its limit within 5 minutes.

* For Cycle 14 operation beyond 7000 EFPH, THERMAL POWER shall not exceed 90% of 2700 Megawatts (thermal).

Add footnote

insert asterisk

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REPLACE WITH REVISED FIG. 2.1-1 (NEXT PAGE).

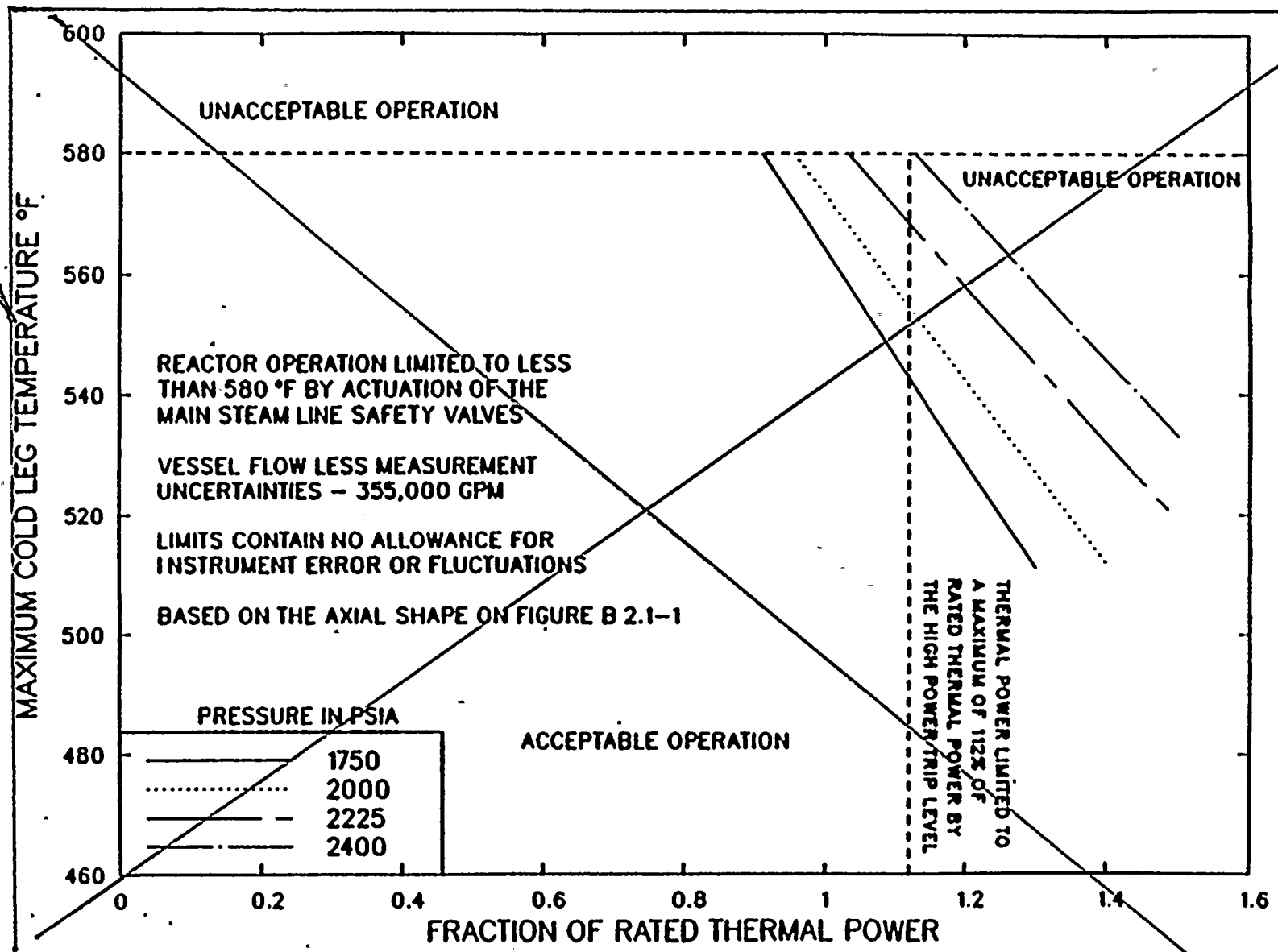


FIGURE 2.1-1 REACTOR CORE THERMAL MARGIN SAFETY LIMIT - FOUR REACTOR COOLING PUMPS OPERATING

FIG. 2-1-1 (NEXT PAGE)
WITH REVISED
& REVISION

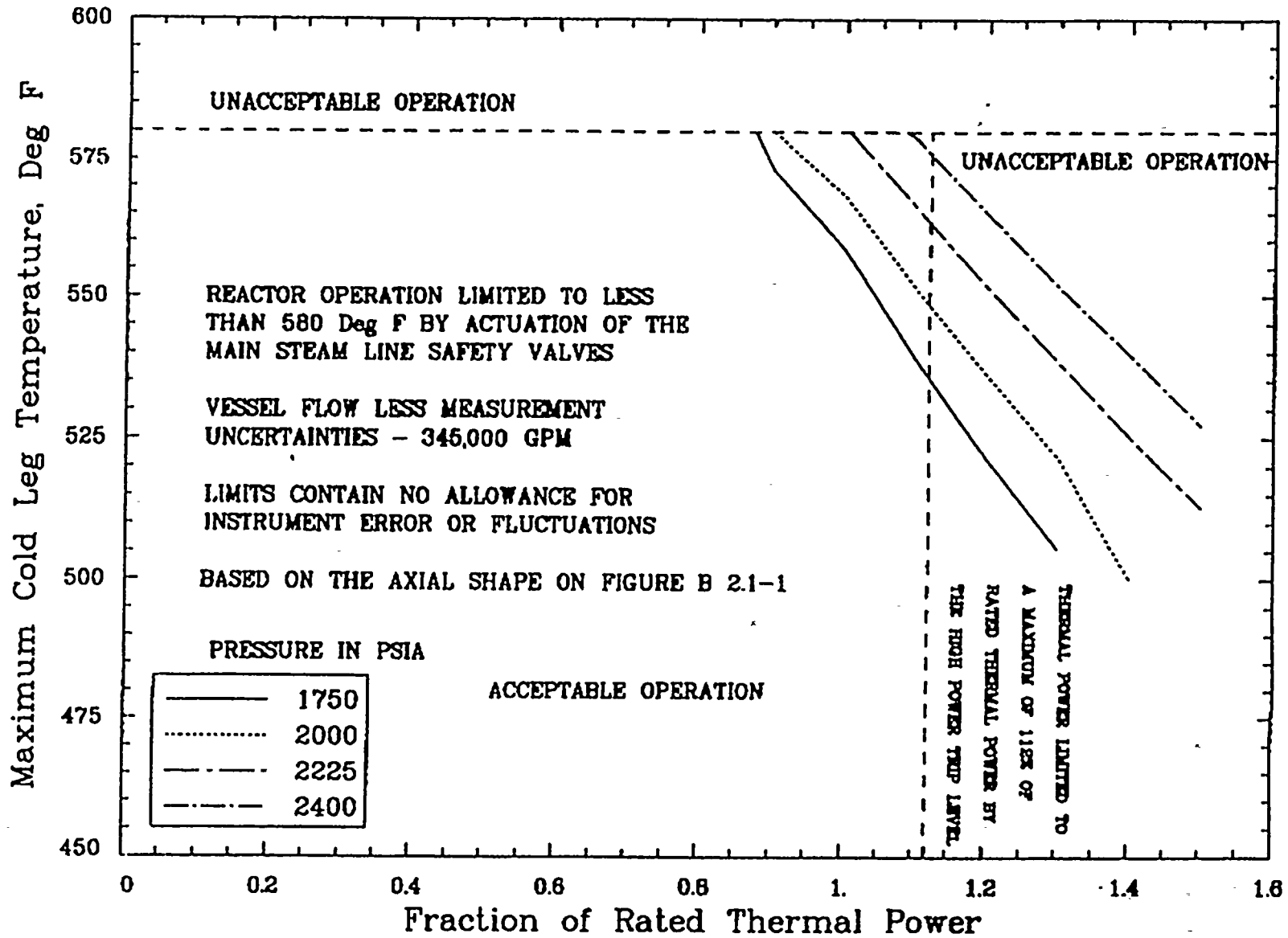


TABLE 2.2-1

REACTOR PROTECTIVE INSTRUMENTATION TRIP SETPOINT LIMITS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
1. Manual Reactor Trip	Not Applicable	Not Applicable
2. Power Level - High (1) Four Reactor Coolant Pumps Operating	$\leq 9.61\%$ above THERMAL POWER, with a minimum setpoint of 15% of RATED THERMAL POWER, and a maximum of $< 107.0\%$ of RATED THERMAL POWER.	$\leq 9.61\%$ above THERMAL POWER, and a minimum setpoint of 15% of RATED THERMAL POWER and a maximum of $\leq 107.0\%$ of RATED THERMAL POWER.
3. Reactor Coolant Flow - Low (1) Four Reactor Coolant Pumps Operating	$\geq 93\%$ $\rightarrow 95\%$ of design reactor coolant flow with 4 pumps operating*	$\geq 93\%$ $\rightarrow 95\%$ of design reactor coolant flow with 4 pumps operating*
4. Pressurizer Pressure - High	≤ 2400 psia	≤ 2400 psia
5. Containment Pressure - High	≤ 3.3 psig	≤ 3.3 psig
6. Steam Generator Pressure - Low (2)	≥ 600 psia	≥ 600 psia
7. Steam Generator Water Level -Low	$\geq 20.5\%$ Water Level - each steam generator	$\geq 19.5\%$ Water Level - each steam generator
8. Local Power Density - High (3)	Trip setpoint adjusted to not exceed the limit lines of Figures 2.2-1 and 2.2-2	Trip set point adjusted to not exceed the limit lines of Figures 2.2-1 and 2.2-2.

*Design reactor coolant flow with 4 pumps operating is ~~355,000~~ gpm.

345,000

3
2001 2143
1

2001 2143
1

2001 2143
1

TABLE 3.2-1

DNB MARGIN

LIMITS

<u>Parameter</u>	<u>Four Reactor Coolant Pumps Operating</u>
Cold Leg Temperature	$\leq 549^{\circ}\text{F}$
Pressurizer Pressure	$\geq 2225 \text{ psia}^*$
Reactor Coolant Flow Rate	$\geq 355,000 \text{ gpm}$
AXIAL SHAPE INDEX	Figure 3.2-4

345,000

* Limit not applicable during either a THERMAL POWER ramp increase in excess of 5% of RATED THERMAL POWER or a THERMAL POWER step increase of greater than 10% of RATED THERMAL POWER.

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DESIGN FEATURES

CONTROL ELEMENT ASSEMBLIES

5.3.2 The reactor core shall contain 73 full length and no part length control element assemblies. The control element assemblies shall be designed and maintained in accordance with the original design provisions contained in Section 4.2.3.2 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The reactor coolant system is designed and shall be maintained:

- a. In accordance with the code requirements specified in Section 5.2 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
- b. For a pressure of 2485 psig, and
- c. For a temperature of 650°F, except for the pressurizer which is 700°F.

VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is 11,100 ± 180 cubic feet at a nominal T_{avg} of 567°F, *when not accounting for steam generator tube plugging.*

5.5 EMERGENCY CORE COOLING SYSTEMS

5.5.1 The emergency core cooling systems are designed and shall be maintained in accordance with the original design provisions contained in Section 6.3 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

Add

5.6 FUEL STORAGE

CRITICALITY

5.6.1.a The spent fuel storage racks are designed and shall be maintained with:

1. A k_{eff} equivalent to less than or equal to 0.95 when flooded with unborated water, which includes a conservative allowance of 0.0065 Δk for uncertainties.

for information of the
stream generator the following

HA

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ENCLOSURE

Siemens Power Corporation-Nuclear Division, St. Lucie Unit 1
Chapter 15 Event Review and Analysis for 30% Steam Generator Tube
Plugging, EMF-96-135; May, 1996