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Attention: Chief, Information Management Branch
Program Management
Policy Development and Analysis Staff

Subject: **Maximum Extended Load Line Limit Analysis Plus (MELLLA+) Licensing Topical Report – GE Draft Presentation Slides – Open Session**

Reference: GE Licensing Topical Report NEDC-33006P, "General Electric Boiling Water Reactor Maximum Extended Load Line Limit Analysis Plus," January 2002

Attached are the non-proprietary draft presentation slides for the February 11, 2002 MELLLA+ Kickoff Meeting. The purpose of this meeting is to provide an overview of the MELLLA+ Licensing Topical Report (Reference) and to obtain Staff feedback on the review schedule. By letter dated January 15, 2002, GE previously submitted the draft proprietary slides for this same meeting.

If you have any questions about the information provided here, please contact George Stramback at (408) 925-1913, P. T. Tran at (408) 925-3348, or myself.

Sincerely,

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cc: JE Donoghue – USNRC
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*Draft*

**GE Nuclear Energy**

# Maximum Extended Load Line Limit Analysis Plus (MELLLA+) Licensing Topical Report

*Open Session*

***PT Tran***

# *Outline*

**Introduction**

**MELLLA+ Design**

**MELLLA+ LTR**

- **Approach and format**
- **Technical Contents**

**Proposed Schedule**

**Open for Questions**

# Meeting Objective

- **To kick off NRC review of the M+ LTR**
- **To obtain feedback on the proposed review schedule/plan**

# Why MELLLA+?

## Need Increased Operating Flexibility for Uprate >5%

- For each uprated step, the current MELLLA full power operating window gets smaller:

  Range for 10% PU: ~87% to maximum flow

  15% PU: ~93% to maximum flow

  20% PU: ~99% to maximum flow

- Maximum core flow capability is also reduced slightly by larger core pressure drop at uprated power and periodically by other potential recirculation effects (e.g., jet pump crudding)

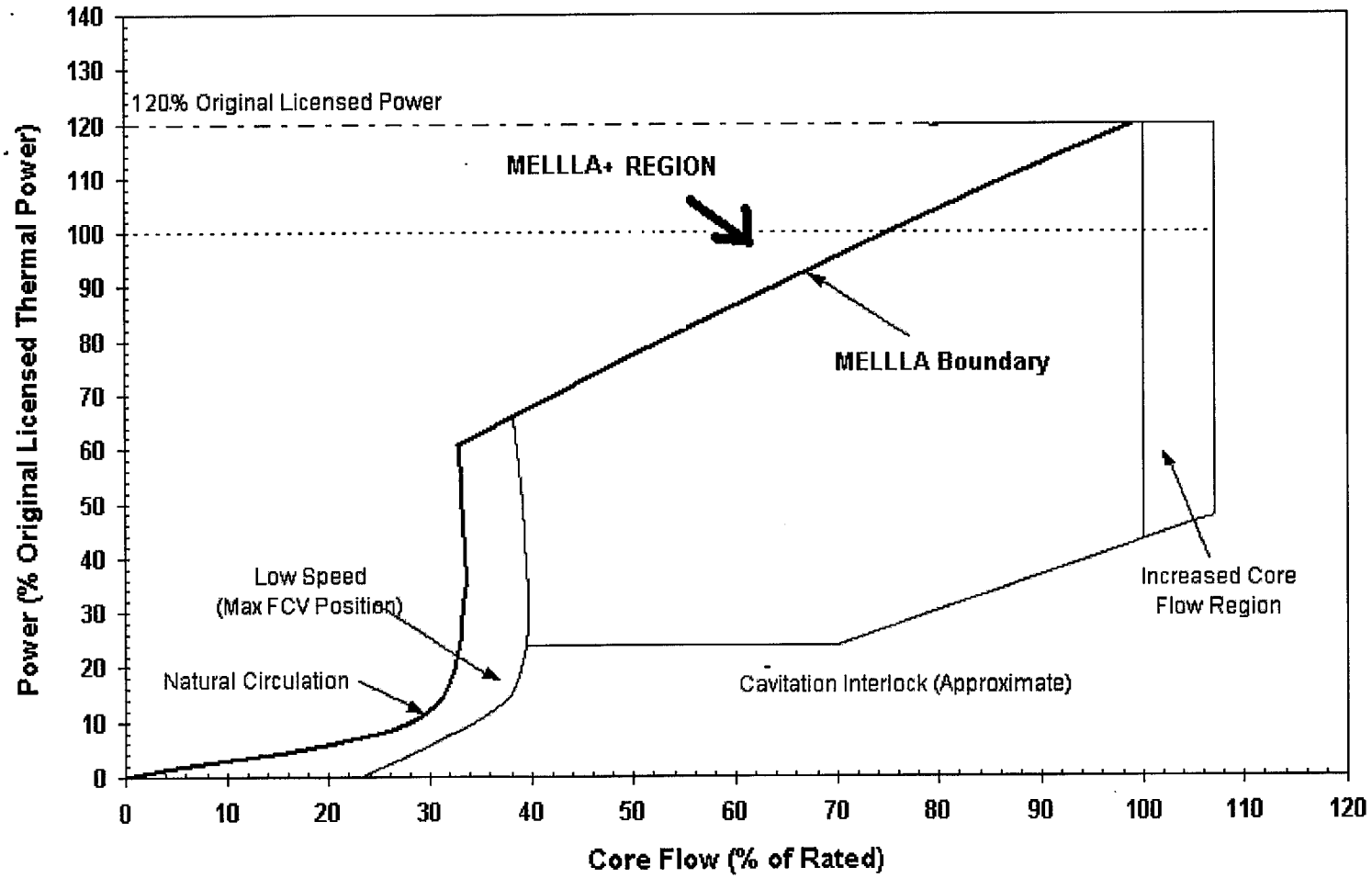
**All plants with EPU need to restore sufficient power/flow operating window**

# What is MELLLA+?

- **An expansion of the existing MELLLA power/flow map to provide more operating flexibility for uprated plants to achieve full core thermal power with a core flow "window"**
- **Objective is to increase the maximum load line by 5% to 15% over the existing MELLLA boundary**

**Restore Practical Full Power Core Flow Range For Extended Power Uprate Operation**

# MELLLA+ Design



# MELLLA+ Effects

- Decrease in core inlet enthalpy
- No increase in power level
- No increase in reactor operating dome pressure
- No increase in steam flow
- No increase in pressure drop
- No increase in decay heat
- No increase in activation source terms

# M+ LTR Approach

## Goals:

- **Follow format of CPPU LTR (CLTR )**
  - **Same structure as CLTR Rev 2**
  - **Similar level of detail**
- **Use experience/engineering principles and evaluation to justify conclusions**

**Use CLTR approach to facilitate NRC review/acceptance**

# *Summary*

- **M+LTR follows CLTR approach to facilitate NRC review**
- **All important technical areas are included in the M+LTR for NRC evaluation**

# *Draft*

# *MELLLA+ Implementation Target Plan*

- **M+LTR Submittal** **01/02**
- **Plant Specific Submittals**

| | M+SAR Submittal | Expected SER |
|---|---|---|
| – **Clinton:** | **04/02** | **2Q03** |
| – **Brunswick:** | **05/02** | **1Q03** |
| – **Browns Ferry:** | **01/03** | **4Q03** |

- **NRC Comments/Feedback on M+LTR plan** **02/02**
- **Proposed Technical Meeting with Staff** **03/02**
- **NRC SER on M+LTR** **01/03**