Licensed Power Limit

NRC Meeting

November 15, 2007

Background

- 1980 “Jordan memo” established basis for compliance with the “licensed power limit”
- *Jordan* was superseded by RIS 2007-21 in August 2007
- Not a safety issue

Current Situation

- Superseding *Jordan* has led to uncertainty about what constitutes compliance with the "licensed power limit"
- Need to:
  - Restore applicable parts of *Jordan*
  - Define "steady state"
  - Address operational factors

Operational Factors

- Improvements in technology since 1980
  - Data acquisition and display
  - Instrumentation
- Normal full power oscillations
- Normal variations in primary-to-secondary power balance (calorimetric)
- Surveillance procedures that affect steam/feed flow
- Normal fluctuations in process instruments
- Change in feedwater temperature
- Change in feedwater flow
- Change in steam flow
- Change in steam generator blowdown flow
- BWR bistable flow
- CVCS changes in temperature or flow

Operational Factors (continued)

- AFW pump/valve operation
- Grid perturbations
- Manual steam generator level control (for RPS testing)
- Change demineralizer resin
- Charging pump swap (for IST)
- Blended makeup to RCS
- Dilution operations
- Chemical addition
- Condensate polisher operation
- Xenon transient
- Exercising control rods
- Normal variations in BWR recirc system flow
- Intake water temperature changes
- Cycling secondary drain valves

Recommendations

- Develop industry guidance
  - Define steady-state operation
  - Define normal fluctuation
  - Define acceptable power averaging
- Regulatory Vehicles (options)
  - Retain NRC IP 61706
  - Revise NRC MC-0612 (performance deficiency)
  - NEI Guideline
  - NRC Regulatory Guide
  - LAR/CLIIP
  - Others?

Project Plan

- Joint NRC/NEI plan
  - Objectives
  - Scope
  - Deliverables
  - Responsibilities
  - Schedule