

**Westinghouse Owners Group
Large Break (LB) LOCA Redefinition Program**

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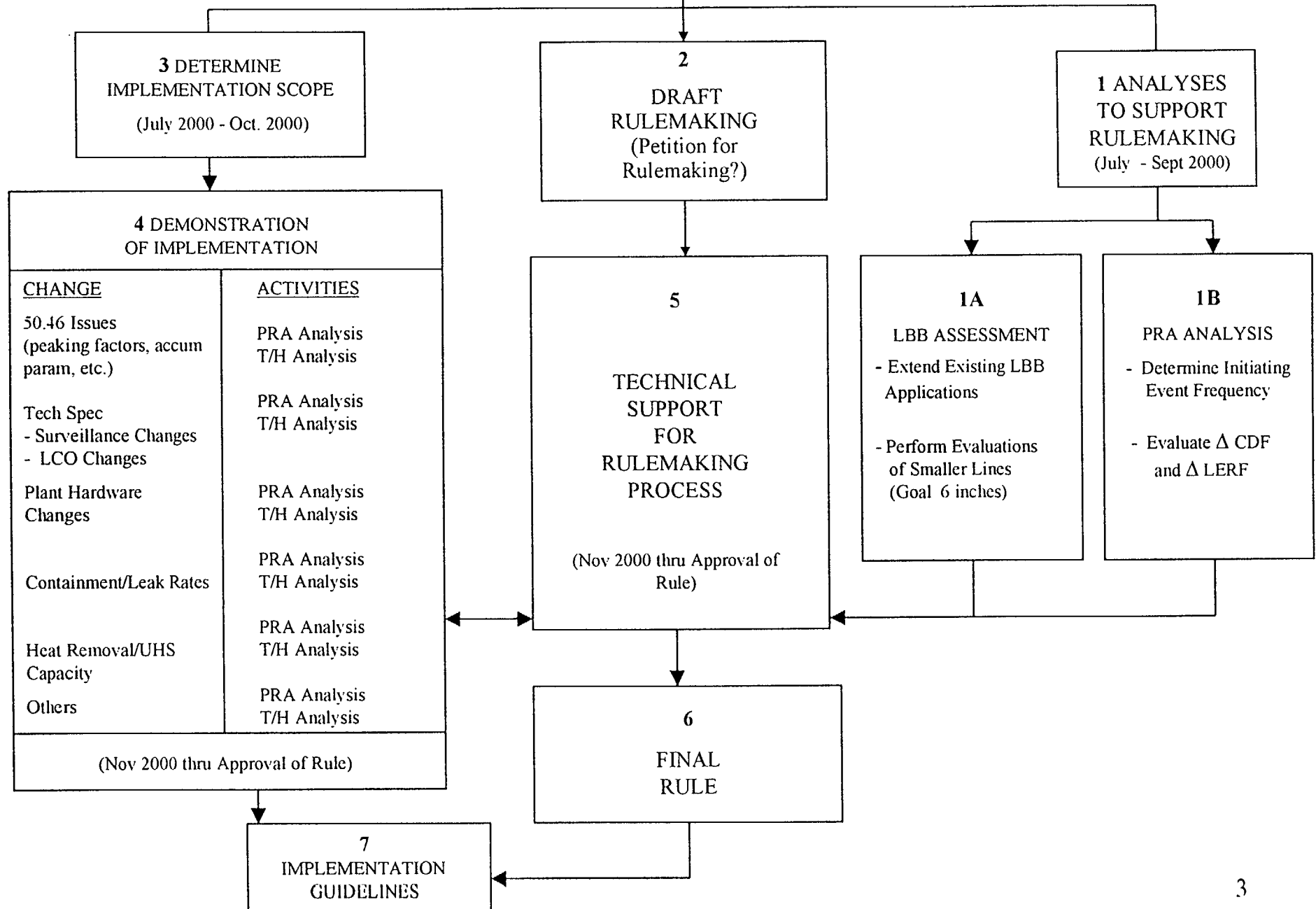
Presentation to NRC

May 18, 2000

Westinghouse Owners Group LBLOCA Redefinition

- WOG Program
 - Overview of Program
 - Decision Making Process
 - Evaluation of Implementation Options
 - Summary of Benefits and Costs
 - Future Activities

LBLOCA REDEFINITION PROGRAM



Westinghouse Owners Group LBLOCA Redefinition

WOG Program Discussion

- Extend Existing LBB Applications to Other Applications
 - Extend Beyond Application to Dynamic Effects
 - No Changes to Existing Methodology Contained in NUREG-1061, Vol 3
 - Adequate Margin of Safety Implicit in NUREG-1061, Vol 3
 - Perform Evaluations of Smaller Lines (Goal 6 Inches)
 - Optimize Generic Program
 - Minimize Plant Specific Reviews
 - Determine Approach to Choose Lines for Analysis
- Open Discussion of LBB Issues
 - Working Level Meetings With NRC To Discuss LBB Program Issues

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Decision Making Process

Identified Current Requirements Based On LBLOCA

- Determined Plant Impact Of Current Requirements
- Identified Current/Future Related Initiatives
- Reviewed Regulations/Requirements To Determine Impact
- Evaluated Various Changes To Regulations
- Evaluated Various Implementation Options
 - a) Changes That Could Be Made Within The Current Regulations
 - b) Exemptions To The Regulations
 - c) Rulemaking To Change The Regulations
- Safety Benefits
- Quantified Potential Costs/Benefits Associated With Pursuit Of Changes

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Evaluation of Implementation Options

- a) Changes That Could Be Made Within The Current Regulations
 - Identified Changes Currently Being Evaluated/Pursued
 - Control Rod Insertion Following a LBLOCA
 - ECCS Hot Leg Recirculation Elimination
 - Increased Break Opening Times
 - Elimination of Dynamic Effects of Postulated Piping Ruptures
 - Containment Sump Debris Generation
 - All Changes Related to LBLOCA
 - Pursuit of Changes Issue Driven Versus Integrated Approach
 - Current Language in 10 CFR Part 50 Prevents Pursuit of Other Changes
 - Reduction in Ultimate Heat Sink Temperature- Based on LBLOCA

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Evaluation of Implementation Options

b) Exemptions To Current Regulations

- Longer Lead Time For Staff Approval
- Potential For Implementation Issues Associated With Broader Implications
- Not Efficient Use Of Staff Or Licensee Resources
- Ultimately Lead To Rulemaking

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Evaluation of Implementation Options

c) Rulemaking to Change Current Regulations

- Maintains Adequate Margin Of Safety
- Risk Benefit
- Consistent With Current Technical Knowledge
- One Time Change To Ensure Addressing Implementation Issues
- Efficient Use Of Staff And Licensee Resources
- Rule Change Applicable To Industry
- Propose Optional Rule (Appendix J, Option B)
- Consistent With Staff's Risk Informed Initiatives (SECY-98-300, Option 3 And SECY-264)

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- Safety Benefits
 - Focus Resources on Activities of Greater Risk Significance
 - Reduce Burden of Revising and Maintaining LBLOCA Design/Licensing Basis
 - Consistency within the Regulations
 - Consistency in Various Individual Analytical Applications
 - Provides a More Realistic Basis for Design Evaluations
 - Promotes Realistic Equipment Testing Requirements

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- **Summary of Economic Benefits (vary by plant)**

- Relaxation of diesel start time (1100K/yr.)
- Increases in peaking factors (100-300K/yr.)
- Potential for 1 - 3% uprating (1700-2800K/yr.)
- Reduced analysis costs (50-300K/yr.)
- Accumulator (17K/yr.)
- B³ one-time benefit (3600-8300K)
- Avoided LBLOCA-related generic issues and letters (75K/yr.)

- **Summary of Costs**

- Total Plant-specific Implementation:
\$700 - 1000K
 - LOCA & LOCA M/E analyses
 - PRA
 - Leak-before-break

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Future Activities

- Program Approval by WOG Members June 2000
- Focus on LBLOCA Redefinition Issues In Future Meetings
- Meetings with Technical Branches
- Maintain Industry Involvement