

**Westinghouse Owners Group
LBLOCA Design Basis Redefinition
NRC Option 3 Workshop, February, 2000**

Redefinition of Large Break LOCA Licensing Basis

- Program Overview

WOG Project Authorization for Phase I:

- Phase Ia Definition and Scoping of Regulatory Impact
- Phase Ib Industry Participation (OGs, NEI & NRC)
- Phase II Analysis (Risk Informed, LBB, LBLOCA, etc.)
- Phase III Rule-Making and Licensing (Topical Reports Submittals & Implementation)

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- Program Status - Phase 1a

- Core Team Formation - *completed*
- Develop Program Plan - *draft report completed and issued for review*
 - Conduct Expert Solicitation Sessions - *completed*
 - Review Existing Regulations - *completed*
 - Assess PRA and Deterministic Evaluations Needed - *completed*
 - Decision and Cost/Benefit Analysis - *completed*
 - Develop Program Approach - *being developed*
- Final Report and Phase II & III Program Plans - *being developed*

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- Program Status - Phase 1b (Industry Participation)
 - Initiate industry interfaces with the OGs and NEI - *initiated and ongoing*
 - Initiate dialogue/meeting with the NRC- *planned for March 17, 2000*

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- | | |
|--|----------------------------|
| • Substantial Benefits (vary by plant) | • Costs to be incurred: |
| • Safety Benefit from better allocation of resources | - Plant-specific: |
| • Operational benefit to plants: | • LOCA & LOCA M/E analyses |
| - Elimination of 10 sec. diesel start time | • PRA |
| - Increases in peaking factors | • Leak-before-break |
| - Potential for uprating | • License document changes |
| - Reduced analysis costs | - WOG per share costs |
| - Accumulator | |
| - Baffle barrel bolting one-time benefit | |
| - Avoided LBLOCA-related generic letters | |

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- Program Direction
 - Licensing Strategy
 - Proposed Rule Change
 - Will support pilot plant applications
 - Technical Justification
 - Leak Before Break
 - Probabilistic Risk Informed Analyses (RG 1.174)
 - with structural reliability
 - ECCS LOCA Analyses
 - Industry Involvement
 - Work within the framework of the NEI Risk-Informed Part 50 effort

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- Program Direction (continued)
 - Licensing Strategy - Rule Change consistent with Risk-Informed Part 50
 - SECY 99-264 (plan for risk-informing technical requirements of 10CFR50)
 - Phase 1: identify candidate regulations for change
 - considers safety, benefit, and burden reduction
 - expect to retain a DBA concept, but some DBAs may be eliminated or modified and others established
 - Risk-informing the technical requirements complements risk-informing the special treatment requirements and adds clarity to the regulations
 - Changes needed to 10CFR Part 50
 - 50.46 Acceptance Criteria for ECCS
 - Appendix A GDC (LOCA definition)
 - Part 50, Appendix K (I. C. 1.)

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- Program Direction (continued)
 - Technical Justification
 - Use PRAs/TPEs to show low risk associated with LBLOCA
 - Use the framework contained in Regulatory Guides 1.174
 - Use Leak Before Break Analysis to justify breaks down to and including 6"
 - Maintain CLB for RCS leakage monitoring
 - Define new limiting break size (<6") & analysis as necessary
 - Proposed rule would not prescribe the size

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- Program Direction (continued)
 - Industry Involvement
 - Nuclear Energy Institute (NEI) Risk-Informed Regulation Working Group
 - CE, BWR, and B&W Owners Groups
 - NEI Risk-Informed Part 50 Task Force

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- Program Direction (continued)
 - NRC Meeting
 - Meet with NRC to present and discuss proposed program strategy
 - Show that proposed program will:
 - Maintain and possibly enhance safety
 - Reducing unnecessary burden
 - Increasing efficiency and effectiveness
 - Use Risk-informed TS Task Force as a template for coordinating with NRC to accomplish the objectives of SECY 99-264
 - Revise strategy based on NRC feedback