



**U.S.NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

**RIC 2007**

**Risk Informed Regulatory  
Activities**

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Risk Informed Initiative 5b – Limerick Generating Station  
Surveillance Frequency Control Program

## Overview

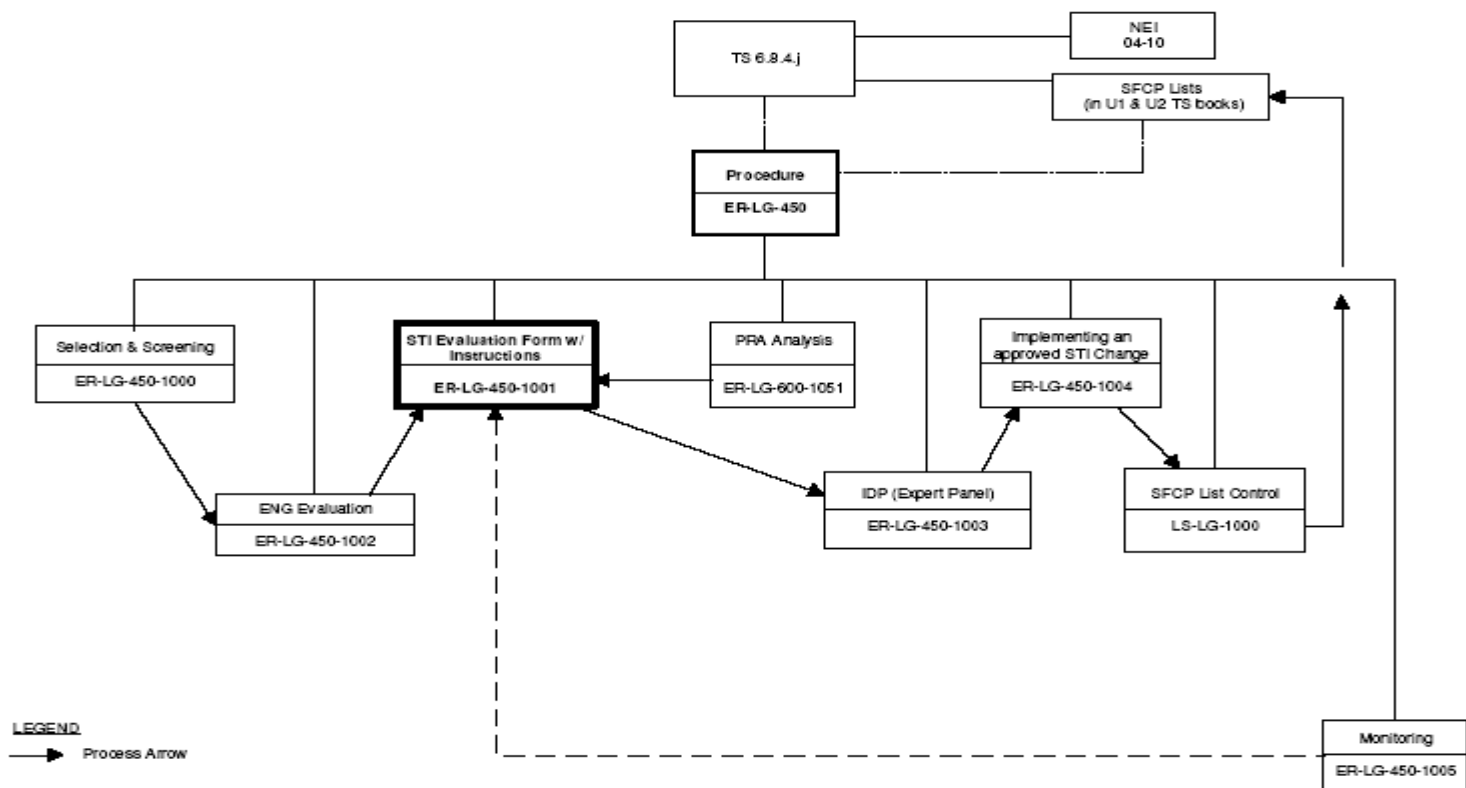
- Limerick pilot for the Industry
- Frequencies removed from Tech Specs
- *Surveillance Frequency Control Program*
- Scope is any periodic surveillance
- Frequencies optimized using risk input
- Uses NEI 04-10 Methodology
- NRC approved on September 28, 2006

## **Background** (Continued)

- Surveillance Frequency Control Program
  - Parent procedure (SFCP)
  - Implementing guidelines
    - Selecting an STI candidate (Plant Health Committee Review)
    - STI Evaluation Form w/ guidance for completing the form
    - Engineering Evaluation of proposed STI change
    - Risk assessment of proposed STI change
    - IDP charter, qualifications, and review process
    - STI change implementation
    - STI change performance monitoring/IDP periodic review
    - List of Surveillance Frequencies Control Process
  - Surveillance Frequency Tabulation

# Process Diagram

LGS SURVEILLANCE FREQUENCY CONTROL PROGRAM (SFCP)  
 Procedure / Process Diagram



**LEGEND**  
 → Process Arrow

Initiative 5b (SFCP) Implementation Team  
 Rev. 0: PJT, 10/17/06,  
 Rev. 1: PJT, 12/04/06

## Administrative Controls

- Utilize existing processes
- Screening/selection of candidates
- Evaluation of STI adjustments
- Presentation at IDP Panel
- PORC approval of STI changes
- Accumulation and Rebaselining

## Implementation

- Change management plan and transition team
- PORC-approved procedures
- Creation of a new Engineering program
- Training for Operations
- Certification of Panel members
- Wholesale revision of Technical Specifications

## **PRA Infrastructure**

- Gap analysis to Regulatory Guide 1.200 and ASME PRA Standard
- Considerable investment in PRA Model improvement (capability and documentation)
- Industry peer review may be required
- External events consideration (fire, seismic)

## Safety Benefits

- Potential to affect all aspects of plant operation
  - Reduced reactivity management events
  - Dose reduction
  - Resource optimization
  - Work Management simplification
    - ❖ Planning
    - ❖ Configuration risk
  - Reduced production risk (initiating events)



## Safety Savings / Resource Reallocation

- Weekly Control Rod Notching
  - 185 Rods notched on each unit every Sunday
  - 5 Control Room personnel involved in performing surveillance test of rod movement for 4 to 5 hours
  - Due to the potential for a reactivity management event no other activities for both units take place during performance of the surveillance
    - ❖ Clearance tag approval and application for upcoming work week is delayed
    - ❖ Cascading effect of control room personnel availability is felt across other organizations

## Closing Thoughts

- Broad strategic safety benefits
- Station efficiency and resource allocation
- Process comprehensively evaluates commitments and experience prior to implementation
- Infrastructure developed can be applied to other risk informed initiatives (10CFR50.69)
- Cultural understanding of risk informed processes (measurement, decision-making, feedback) increased across organizations