

RIC 2003

Risk-Informed Activities, Session T3

South Texas Experience Implementing an Option 2-type
Process for Categorization and Treatment

Mr. J. Joe Sheppard

President and CEO

South Texas Project Nuclear Operating Company

April 17, 2003

Proto-type Pilot for Option 2: Strengthening Nuclear Safety While Reducing Costs

- STP sought, received an exemption from certain special treatment requirements of 10CFR Parts 21, 50, and 100 for components categorized as Low and Non-Risk Significant
 - Exemption granted 08/03/01
 - based on an approved risk-informed categorization process
 - this was the proto-type for the industry's 50.69 activities
- Experience to date has shown good coherence for enhanced nuclear safety through risk-informed regulation
 - reduced burdens on both STP and NRC
 - allows better focus on safety significant SSCs
 - strengthens safety culture

Categorization & Implementation Status

- 43 systems (over 51,000 components) categorized to date
 - Only 22% of safety-related SSCs have been determined to be safety significant (Box 1)
 - About 1% of non-safety related SSCs have been determined to be safety significant
- Implementation proceeding deliberately on strategically selected programs
 - LLRTs: 57% reduction in required testing
 - Maint. Rule: 15 systems removed from scope
 - Valve Stroke Time Testing: 70 tests eliminated in U-2 outage
 - Relief Valve Testing: 162 valves eliminated from scope of IST

Implementation / Insights Gained

- PM activities: 5 man-year labor savings, \$60K in parts
- Procurement: \$261K savings noted in 2002
- These savings on Low Safety Significant SSCs has allowed stronger focus on High Safety Significant SSCs
 - culture becoming ‘risk-fluent’ - recognizing appropriate treatments based on risk insights
- PRA Model changes must be carefully controlled
 - Risk rank changes now directly impact treatment of SSCs
- Categorization decisions must be clearly documented
- Need to guard against mis-applications of component categorizations

Closing Thoughts

- STP continues to cautiously and deliberately implement the Exemption allowances - still early in the process
- Intended STP objectives are being achieved, that is, to enhance safety focus while reducing burden
- STP approach has demonstrated that a coherent risk-informed program can be mutually beneficial by enhancing safety while reducing burden
- Current industry Option 2 offers a significant opportunity to enhance nuclear safety while improving cost performance