



2006 NRC Regulatory Information Conference - Region II Breakout A. S. Bhatnagar, Senior VP Nuclear Operations



- Process defined in NRC Inspection Manual Chapter 0305.
- ROP presumption: cross-cutting performance issues revealed through Performance Indicators (PIs) or inspection findings.
- Conditions:
 - Multiple inspection findings (plus multiple cornerstones) with cross-cutting aspects in the areas of Human Performance, Problem Identification and Reporting or Safety Conscience Work Environment.
 - Causal factors have a common theme (more than 3 findings in a “bin”).
 - Concern with the licensee’s progress in addressing cross-cutting area performance.
- Cover letter should define the criteria for clearing the issue (e.g., fewer findings or more confidence in ability to correct).

TVA Cross-Cutting Example

- Staff identified a substantive crosscutting issue in the area of Human Performance during a mid-cycle performance review.
- Six NCVs in previous 12 months contained human performance aspects specifically related to personnel errors.
- Cited common performance deficiency of failure to implement procedures.
- Although TVA was implementing a Human Performance Improvement Plan, it had not been parallel binning cross-cutting NCVs.



TVA Example Region Staff Engagement

- Region Comment - “Familiar with the actions and recent programs your staff has implemented to address human performance problems, these efforts have not yet had time to demonstrate their effectiveness.”
 - TVA Action - establish series of public meetings with Region II staff to demonstrate results of Human Performance improvement programs.
- Region Comment - “Five of the six findings were associated with the Operations organization.”
 - TVA Action - focused one of the public meetings around Operations improvement.
- Region Comment - “Four of the six findings were associated with refueling outage preparations or activities.”
 - TVA Action - focused one of the public meetings around refueling outage human performance - critical to closure prior to end of 18 month cycle.



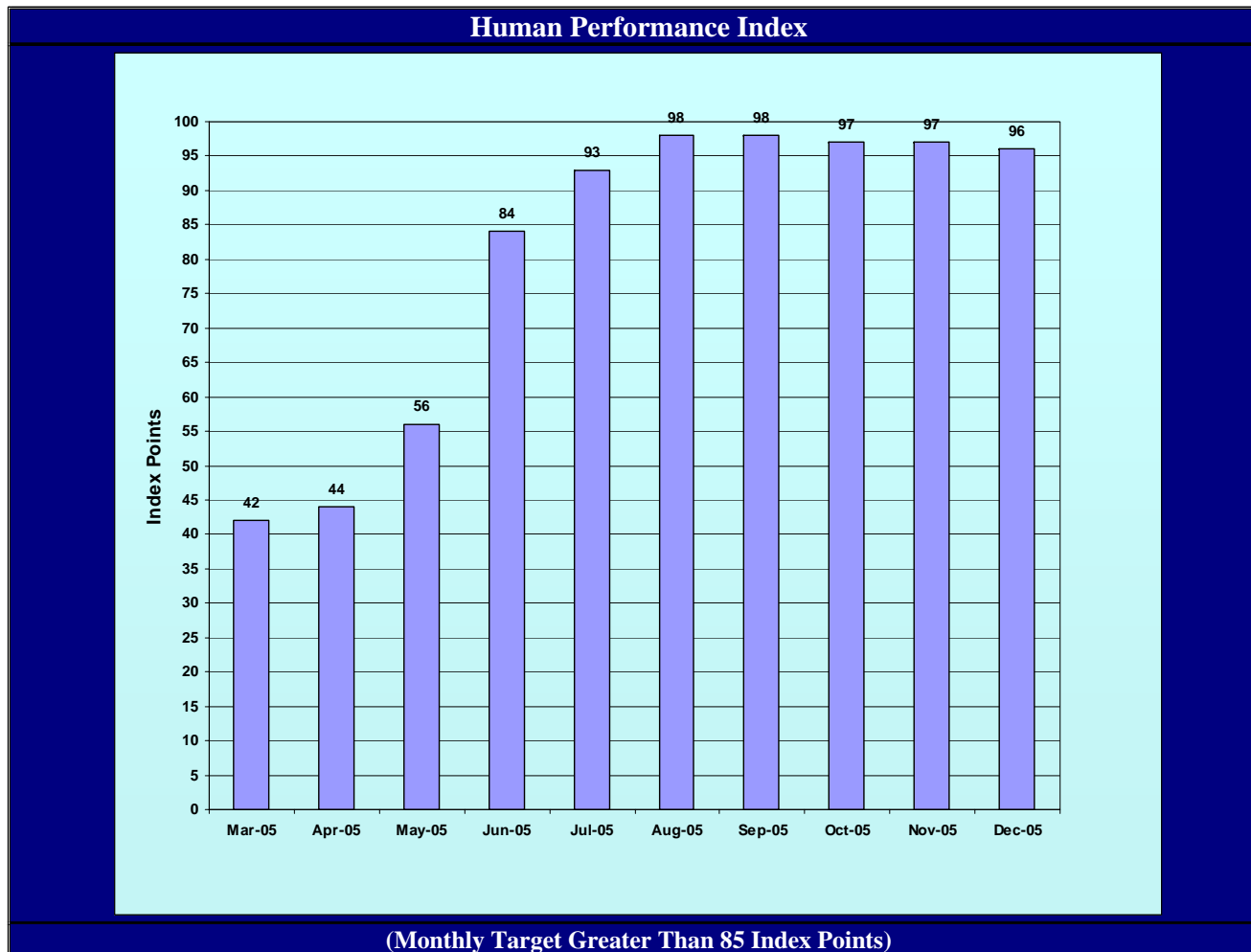
TVA Example Region Staff Engagement

- Public meeting topics:
 - Vision and Strategy for Human Performance: Top Ten Plan to improve Human Performance.
 - Leading Indicators for Human Performance.
 - Human Performance “Index.”
 - Procedure use and adherence field observations.
 - Lagging Indicators for Human Performance.
 - Station Event Free Clock.
 - Human Performance corrective action document trends.
 - Corrective action document analysis of failed barriers and inappropriate behaviors.
 - “Critical Evolutions” process to minimize impact of errors.
 - Operation Improvement Plan.
 - Outage Improvement Plan.
- Docketed Basis and Request for Issue Closure.



TVA Example

Human Performance Index





TVA Example Cross-cutting Closure Considerations

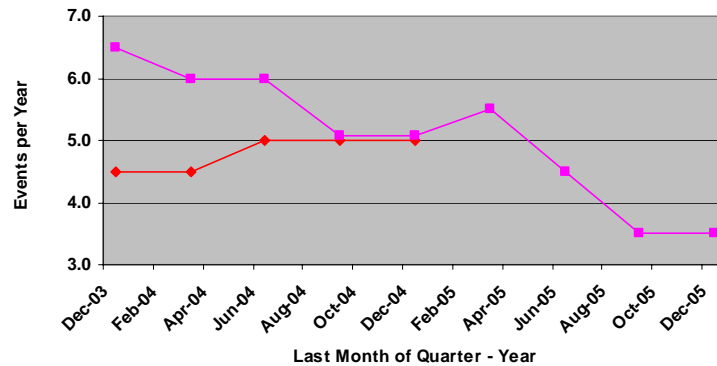
- NRC Human performance concern - failures to follow plant procedures results in increased challenges to plant equipment from preventable transients and events.
- TVA proposed a closure criteria to address transients and events that focused on:
 - No human performance NCVs for 9 months.
 - Results of TVA's Human Performance Improvement Plan (e.g., Department and Station Clock resets).
 - The corrective actions to address the cross-cutting issue.
 - The monitoring of Human Performance (e.g., Human Performance Index).
 - The comparison of performance to the industry (e.g., Top quartile for 50.72 event notifications, LERs, Automatic Scrams, and Operating Transients).



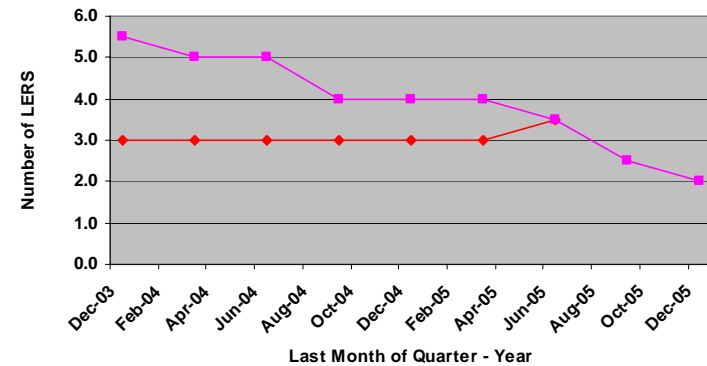
Comparison of Watts Bar to Industry in Four Key Performance Areas

(All Charts are on a Two Year Rolling Average)

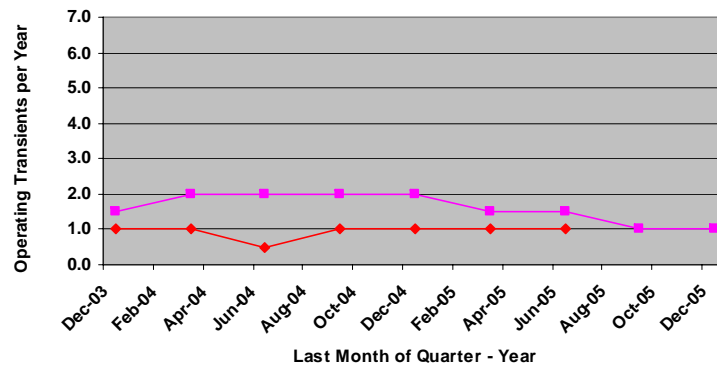
NRC Daily Events (50.72 Reports)



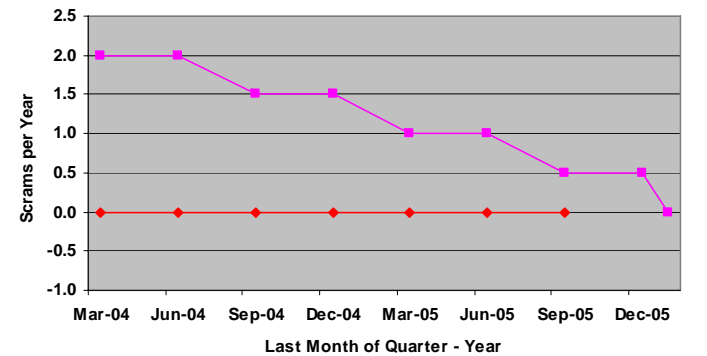
Licensee Events Reports (LERs)



Operating Transients



Unplanned Automatic Scrams



Legend: Watts Bar: Industry Top Quartile:

- Improve station Human Performance.
- Closely monitor your Human Performance.
- Do “Parallel Binning” of NCVs.
- Engage Region Staff if performance declines.
- If substantive cross-cutting is identified:
 - Measure improvement results.
 - Engage Region Staff.
 - Document basis for closure.