



## Columbia Plant Commitment to Continuous Improvement in Safety Performance

Licensee Performance Review  
April 12, 2006

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## Columbia Plant LPR Agenda

- Safety Performance Improvement
- W Perspective on Safety Performance
- Corrective Action Status
  - Nuclear Criticality Safety
  - Configuration Management
  - Procedure Adherence
  - Licensing Activities
- Conclusion

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## Columbia Plant LPR Commitment to Safety

- Westinghouse leadership remains committed to the goal of continuous improvement in safety performance:

- Safety is demonstrated to be our top priority
- Continuous improvement in safety is imperative to drive our business forward
- Our focus is on the provision of resources and reinforcement to *'value the prevention of errors'*
- Appropriate oversight is provided to ensure the **action plans** are delivered

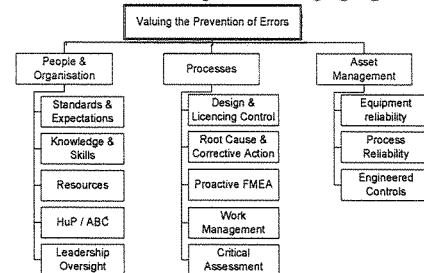
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## Columbia Plant LPR Safety Performance Improvement

*Valuing the prevention of errors by providing resources, oversight and engaging line*



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## Columbia Plant LPR Westinghouse Concurrs with NRC Perspectives

### • Safety Operations

- Good performance in chemical safety and fire safety
- Improvement continues in nuclear criticality safety performance and further improvements on schedule
- Improvements implemented early 2005 addressed configuration control items

### • Radiological Controls

- Good performance in minimizing employee exposures, environmental protection, waste management and transportation

### • Facility Support

- Good performance in maintenance & surveillance of items relied on for safety and emergency preparedness
- Improvement continues in supervisor and manager oversight and in training through our Human Performance program

We continue to operate the Columbia Plant safely  
Specific improvement efforts to be focused in noted areas



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## Columbia Plant LPR Westinghouse Perspective on Special Topic Areas

### • Special Topics

- Westinghouse was surprised to see NRC's perspective that licensing activities needed improvement
- We believe that Westinghouse's open and frequent communications with NRC licensing staff have fostered a positive working relationship
- Licensing activities continue to be based on rule requirements and where appropriate, Standard Review Plan guidance
- There have been, and will continue to be, areas where extensive discussions are required to resolve differences in NRC/licensee perspectives

Licensing performance is believed to be consistent with  
current regulations and established precedent.



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## Columbia Plant LPR Safety Performance Focus

- Nuclear Criticality Safety Basis
- Configuration Management
- Procedure Adherence
- Licensing Activities



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## Columbia Plant LPR Criticality Safety Improvement - Background

- Westinghouse developed a comprehensive nuclear criticality safety improvement strategy in late 2004 to strengthen criticality safety resources & reconstitute the plant safety basis
  - Independent blue-ribbon audit of criticality safety affirmed plant safety
  - Substantially strengthened criticality safety staff (2 mgrs, 7 full-time engineers, 5 supplemental specialists)
  - Improved plant-wide criticality training
  - Underway on 3-year program to review and strengthen legacy analyses
  - Progressing with systematic review of safety basis, prioritized on a risk-informed basis



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## Columbia Plant LPR Criticality Safety Improvement - Status

### Phase 1: Staffing & Infrastructure

- Staffing and infrastructure improvement complete
- Still working with NRC on margin of subcriticality issues

### Phase 2: Detailed Assessment of Weaknesses & Deficiencies

- Technical Basis Evaluations (TBE's) completed

### Phase 3: Risk-Based Prioritization of Upgrades

- Priority list established

### Phase 4: Upgrade & Implement NCS Technical Basis

- Technical Basis and Criticality Safety Evaluation (CSE) upgrades underway in accordance with detailed schedule

*This is an effective improvement program.*

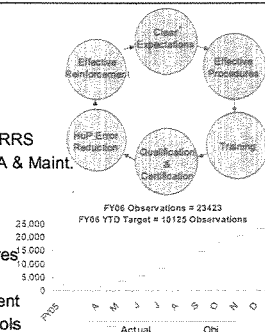
## Columbia Plant LPR Configuration Management

- A comprehensive Environment, Health and Safety (EH&S) training and qualification program for management and engineering personnel has been implemented to ensure their understanding of CFFF license conditions, safety programs, and safety basis documentation including safety controls and process limits
- A detailed analysis of the configuration management system at the Columbia Plant, led by an independent expert outside of Westinghouse, was completed in August 2005
- Long term improvement actions are being tracked to completion through our Corrective Action Process (CAPs)

## Columbia Plant LPR Procedure Adherence – For Good!

Successfully addressing legacy procedure adherence issues

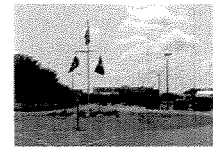
- Stems from high dependency on administrative controls
- Robust training & recertification complete for Conv., Pelleting & URRS and in progress for IFBA, Rods, F/A & Maint.
- Certification program for Managers & Engineers underway
- Labeling of safety controls
- Sustainable compensatory measures via aggressive HuP program
- Reinforced with intense management oversight of safety significant controls



## Columbia Plant LPR HuP is Becoming Our Culture

### Pathway to HuP Excellence

- HuP Training
- Event Clocks
- HuP Tool Application
- Observation Program
- HuP Event Investigations
- Precision Leadership (ABC)



**Working Together**



**The Target is Zero**

## Columbia Plant LPR Measures Show Improvement

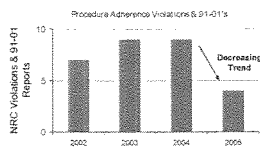
### • Leading Measure

- Internal EH&S audits of criticality safety procedure adherence

Year	Findings	Rate
FY05	73	5.2d/finding
FY06	8	26d/finding

### • Lagging Measure

- Number of violations and 91-01 reports attributable to procedure adherence

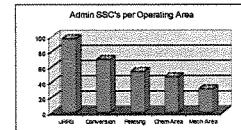


## Columbia Plant LPR Elimination of Administrative Controls

### Systematic Elimination

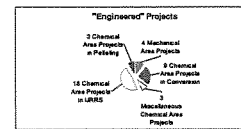
#### Program

- Risk-informed ranking & focus
- Failure modes & effects analysis
- Purely administrative (299)
- Assisted administrative (55)
- Dedicated resources
- Capital & expense funding secured



### Phase I Elimination Plan

- Focus on 37 initial controls
- Automated powder sampling mechanism being installed
- Installation of 8 other engineered controls proceeding
- Reinforced via progress reports



## Columbia Plant LPR Licensing Activities

### • License Renewal

- In 2003, license renewal was discussed with NRC, including approach, strategy and format
- W believed NRC concurrence was obtained on approach, strategy and format prior to December 2004 submittal of the renewal application
- In 2005 to date, W responded in constructive fashion to address NRC's comments and issues
- W believes NRC understanding of renewal approach was lost due to NRC staff turnover

### • Environmental Report

- W submitted an update to the Environmental Report to supplement previously submitted documentation
- W believed submittal was consistent with guidance received from NRC Licensing Staff
- W responded in a timely manner to the Request for Additional Information (RAI), containing five questions

## Columbia Plant LPR Licensing Activities (cont.)

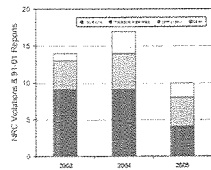
### • Margin of Subcriticality (MoS) is fully justified at 0.02

- W is licensed for MoS = 0.02 and has provided superior technical justification for retaining this MoS in its license application
- The 0.02 MoS is in full compliance with NRC regulation and American Nuclear Society (ANS) standards
- No safety issue exists at 0.02 MoS – this established MoS gives reasonable assurance that the plant provides adequate protection for public health and safety
- There is no valid justification for the NRC staff position that the more conservative 0.05 MoS is required to ensure that the plant provides adequate protection of public health and safety
- NRC senior management involvement is imperative to resolve this issue now – *ongoing CSE upgrades are at risk!*

NRC's MoS positions are a ratcheting of requirements through application of draft interim staff guidance and are not permissible regulation

## Columbia Plant LPR Summary

- We are operating the Columbia Plant more safely and with more safety margin than ever
- Further improvements are imperative
  - Safety is our top priority
  - By *valuing the prevention of errors*
- Systematic programs in place to address key improvements
- Metrics are showing improvement
- Expect to see more issues self-identified over the next 2 years;



**Working Together**



**The Target is Zero**



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