Industry Safety Culture Presentation

January 18, 2006 Public Meeting

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Background

- Industry made significant improvements to safety culture oversight
  - Davis-Besse lessons learned training conducted by all licensees (SOER 02-04)
  - Self-assessments of safety culture performed by all licensees (SOER 02-04)
  - Industry Safety Culture Principles document issued
  - INPO Evaluation process specifically address Safety Culture Principles and Attributes
  - INPO evaluates industry OE against Safety Culture Principles and Attributes
  - INPO evaluates SOER 02-04 recommendations 1&2 during every plant evaluation
  - INPO changes to evaluation, assistance, training, and operating experience cornerstones
- NRC made significant changes to ROP cross-cutting areas post Davis-Besse
  - Re-defined sub-components
  - Established threshold (3+) for substantive issue analysis
  - PI&R changes specifically address long-term unresolved issues
  - PI&R changes specifically address deferred plant modifications
  - PI&R changes specifically address operator work-arounds
  - Recent changes to Engineering Inspection procedure

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Industry Position

1. Adequate NRC oversight of Licensee Safety Culture is provided by:
   a. Existing regulatory framework (50.7, 50.65, Appendix B, ROP, etc.)
   b. Enhancements already made to cross-cutting areas and their associated sub-components
   c. The following additional enhancements proposed in 12-21-2005 Staff paper
      i. Long-standing cross-cutting issues (assessment process)
      ii. Column 2 reviews of root causes (95001)
      iii. Column 3 and 4 interventions (95002, 95003)

2. Development of Safety Culture Components is premature until agreement is reached on usage. Any Safety Culture Components list developed should be used to guide the staff's evaluation of the quality of licensee safety culture assessments and to perform its own assessments.

3. Staff proposed cross-cutting area changes are not necessary/desirable because:
   a. Item A. process meets the direction in December 21 SRM
   b. Current cross cutting areas provide meaningful safety culture insights
   c. Introduce unnecessary complexity and instability
   d. Inconsistent with ROP principles of predictable, transparent, risk-informed, and objective

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Existing vs. Proposed Subcomponents PI&R

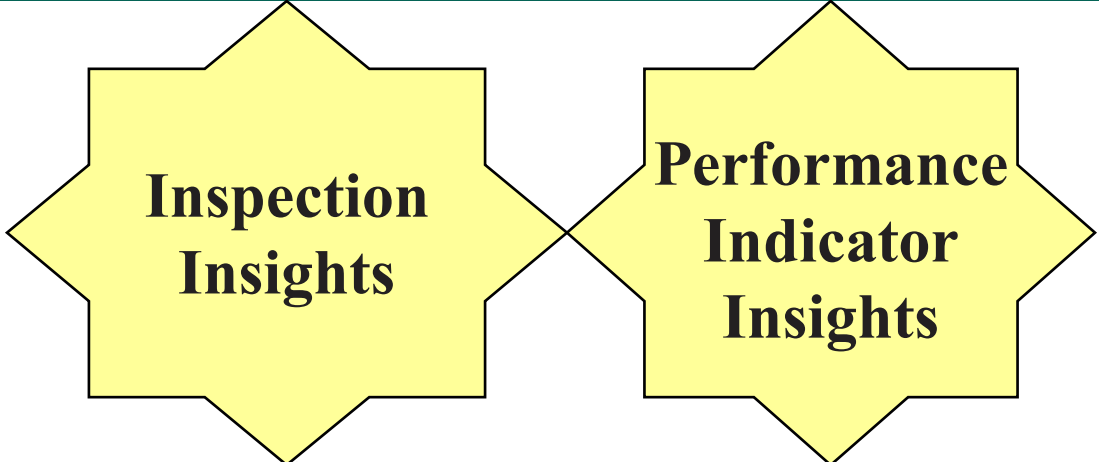| What We Have	What Is Being Proposed

PI&R

- Identification
- Evaluation
- Corrective Action

PI&R

- CAP
- Operating Experience
- Self & Independent Assessment

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Inspection Insights

Performance Indicator Insights

Safety Culture is that assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, nuclear plant **safety issues receive the attention warranted by their significance.**

PI&R Insights

Safety Culture Insights

PI&R Goal: establish confidence licensee is detecting and correcting problems in a manner that limits risk
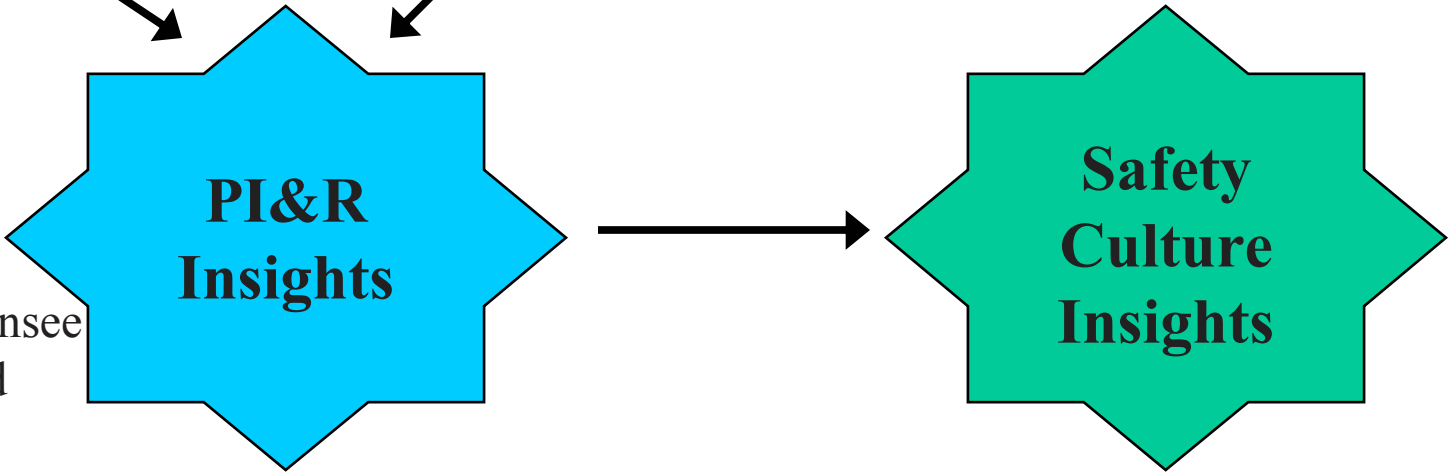
Existing PI&R process provides valuable insights with respect to a licensee's safety culture.

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PI&R Inspection Foundation

Minimum 100, up to 400 baseline inspection hours PER YEAR to PI&R

- Verify equipment, human performance, and program issues are being identified at appropriate threshold and being entered into licensee's PI&R process.

- Verify corrective actions commensurate with significance of issue have been identified and implemented

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PI&R Inspection Procedure Fundamental Principle

IP 71152-03 General Guidance

Process focuses on **identification** of problems and **effectiveness** of corrective actions for risk significant issues **rather than administrative** aspects of program

Existing vs. Proposed Subcomponents PI&R – Industry Review

- ALL elements of staff proposed sub-components are covered in existing IP 71152
  - CAP – IP 71152 – all sections, significant scope changes already made
  - Operating Experience – IP 71152 Section -03.5
  - Self and Independent Assessment IP 71152 Sections 02.01d, 02.03.c, -03.6
- One important lesson from Davis Besse: Quality of IMPLEMENTATION is more important than quality of PROGRAM

Existing vs. Proposed Subcomponents Human Performance

What We Have

- Personnel
- Resources
- Organization

What Is Being Proposed

- Work Control
- Worker Practices
- Resources
- Decision Making

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Proposed vs. Existing Subcomponents Human Performance

- (Worker Practices) Personnel

- (Resources) Resources

- (Decision Making) Organization

- (Work Control) – combination of PI&R, Resources, and Personnel

Human Performance Industry Analysis

- Existing Human Performance sub-components more closely reflect typical industry models of performance
- Proposed sub-components
  - Are inconsistent with any Human Performance Model currently being used
  - Add further subjectivity to the existing process
  - Don't fully capture important Human Performance factors
  - Will not provide benefit over current sub-components as binning tools

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Performance Model
(w/ example defenses)

Existing vs. Proposed Subcomponents SCWE

What We Have

An environment in which employees feel free to raise safety concerns, both to their management and to the NRC, without fear of retaliation.

What Is Being Proposed

- Willingness to raise concerns
- Preventing and detecting retaliation

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Existing vs. Proposed Subcomponents SCWE – Industry Perspective

- Current process provides adequate insights

- Proposed sub-component definitions are inaccurate reflection of SCWE because they eliminate the causal connection

- Threshold proposed by component definitions for findings in SCWE too low (one) and inconsistent with cross-cutting principles

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