

#### PUBLIC MEETING ON SAFETY CULTURE

August 17, 2005



# Background of the Safety Culture Initiatives

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#### Background of the Safety Culture Initiatives

- Commission Staff Requirements
   Memorandum
- Davis-Besse Lessons Learned Recommendation
- Congressional Interest



### Background of the Safety Culture Initiatives

- Established a Safety Culture Steering Committee, Working Group, and Support Team
- Defined Objectives and Approach
- Developed a Safety Culture Response Plan (Plan)
- Developed a Safety Culture Attributes Table (Table)



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- Assess the Reactor Oversight Process (ROP) Cross-cutting Issues and Inspection Procedures and modify, as needed
- Develop a Process for Evaluating Licensee Safety Culture for Plants with Degraded Cornerstones
- Train Inspectors on Safety Culture
- Monitor Industry Safety Culture efforts
- Monitor Foreign Developments in Safety Culture



- Assess and Modify ROP
  - Develop the Safety Culture Attributes Table (Table)
  - Compare the Table to Current Inspection Program
  - Propose changes to the ROP including
    - Inspection procedures/Cross Cutting Areas
    - Documentation
    - Assessment process
- Process for determining when to apply a specific evaluation of safety culture for plants in the degraded cornerstones
- Process for conducting the specific evaluation of safety culture
  - Determine the type of NRC evaluation (NRC-led, licensee self-assessment, licensee third party assessment)
  - Develop Guidance



- Train Inspectors
  - Safety culture familiarization
  - Baseline inspections
  - Safety culture specific evaluation
- Monitor Industry Efforts in Safety Culture
  - Observe INPO Plant Evaluations, etc.
- Monitor Foreign Developments
  - International Atomic Energy Agency
  - Nuclear Energy Agency Special Experts
     Group on Human and Organizational Factors



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- Provides for a structured way of identifying those organizational values, behaviors, and associated plant programs and processes thought to be important relative to safety culture
- Modeled after ROP cornerstone hierarchical framework
- Derived from multiple national and international sources (including IAEA, foreign regulators, INPO, commercial US facilities, etc.)
- The table is a work in progress



Safety Culture Attribute	Safety Culture Element	Potential Safety Culture Inspection Information	Potential Safety Culture Measure
An inherent characteristic, quality, or property that is critical to a licensee's safety culture	A specific factor, process, or process outcome that can either be inspected or measured and that can be used to assess a licensee's performance with respect to the Safety Culture Attribute(s).	Qualitative information that is acquired from an inspection to assess change or performance of a Safety Culture Element.	Quantifiable information that is acquired through an inspection (e.g., that can be counted, trended or noted) which can be used to assess change or performance of a Safety Culture Element.



- Four general "Safety Culture Attributes" and fifteen associated "Safety Culture Elements"
- Many of the Safety Culture Elements are currently covered, at least partially, by NRC baseline or supplemental inspections as part of the ROP
- Will be used to develop enhancements to current NRC inspection and assessment programs



## Safety Culture Attributes and Elements

- Safety Conscious Work Environment (SCWE)
  - Organizational Responsibility For SCWE
  - Personal Responsibility For SCWE
  - Questioning Attitude
- Organizational Learning and Assessment
  - Operating Experience (internal and external)
  - Self assessment process
  - Problem Identification and Resolution/Corrective Action Program
  - Continuous Learning Environment
  - Benchmarking

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## Safety Culture Attributes and Elements

- Work Planning and Human Performance
  - Work Control
  - Systematic Decision-making
  - Conduct of Work
- Organizational Safety Accountability
  - Safety Policies
  - Accountability and Incentive Programs
  - Adequate Resources
  - Organizational Change Management



- The column titled "Potential Safety Culture Inspection Information" provides examples of qualitative information that could be used to assess the Safety Culture Element by NRC inspectors
- The column titled "Potential Safety Culture Measures" provides examples of quantitative information that could be used to help focus NRC inspectors on areas of potential concern
- The Potential Safety Culture Measures are not meant to be used as performance indicators analogous to those used in the ROP



# Next Steps in the Safety Culture Initiatives

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## Next Steps in Safety Culture Initiatives

- Seek Internal and External Stakeholder
  input on the Table
- Public Meeting in October 2005
- Advisory Committee on Reactor Safeguards (ACRS) Information Briefing, November 2005
- Avenues for Stakeholder input/feedback



#### **Questions and Comments**

- Approach
- Safety Culture Response Plan
- Safety Culture Attributes Table
- Next Steps