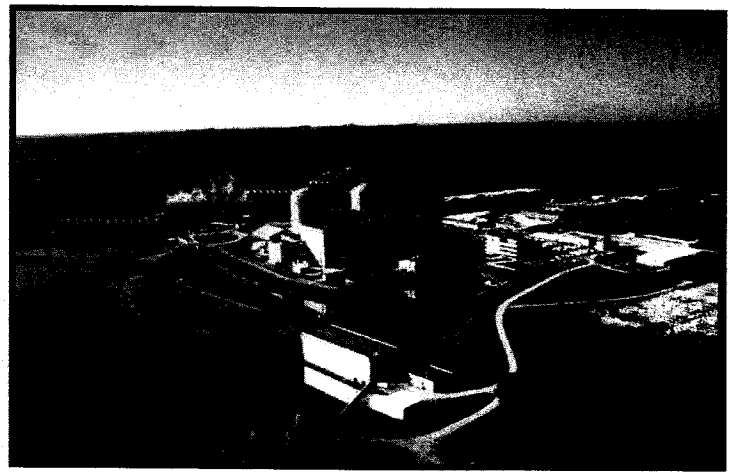
Xcel Energy

Prairie Island Nuclear Generating Plant



Public Meeting
Station Human Performance and Recovery Plan

December 1, 2009

Agenda

- Regulatory Performance
- Management Assessment of Station Performance
- Performance Recovery Plan
- Human Performance Cross-Cutting Issue
- Current Human Performance
- Focus Areas
- Closing Remarks
- Questions/Discussion

Introductions

- Dennis Koehl – Xcel Vice President and Chief Nuclear Officer
- Mark Schimmel – Site Vice President
- Brad Sawatzke – Director Site Operations
- Kevin Ryan – Plant Manager
- Scott Northard – Recovery Manager

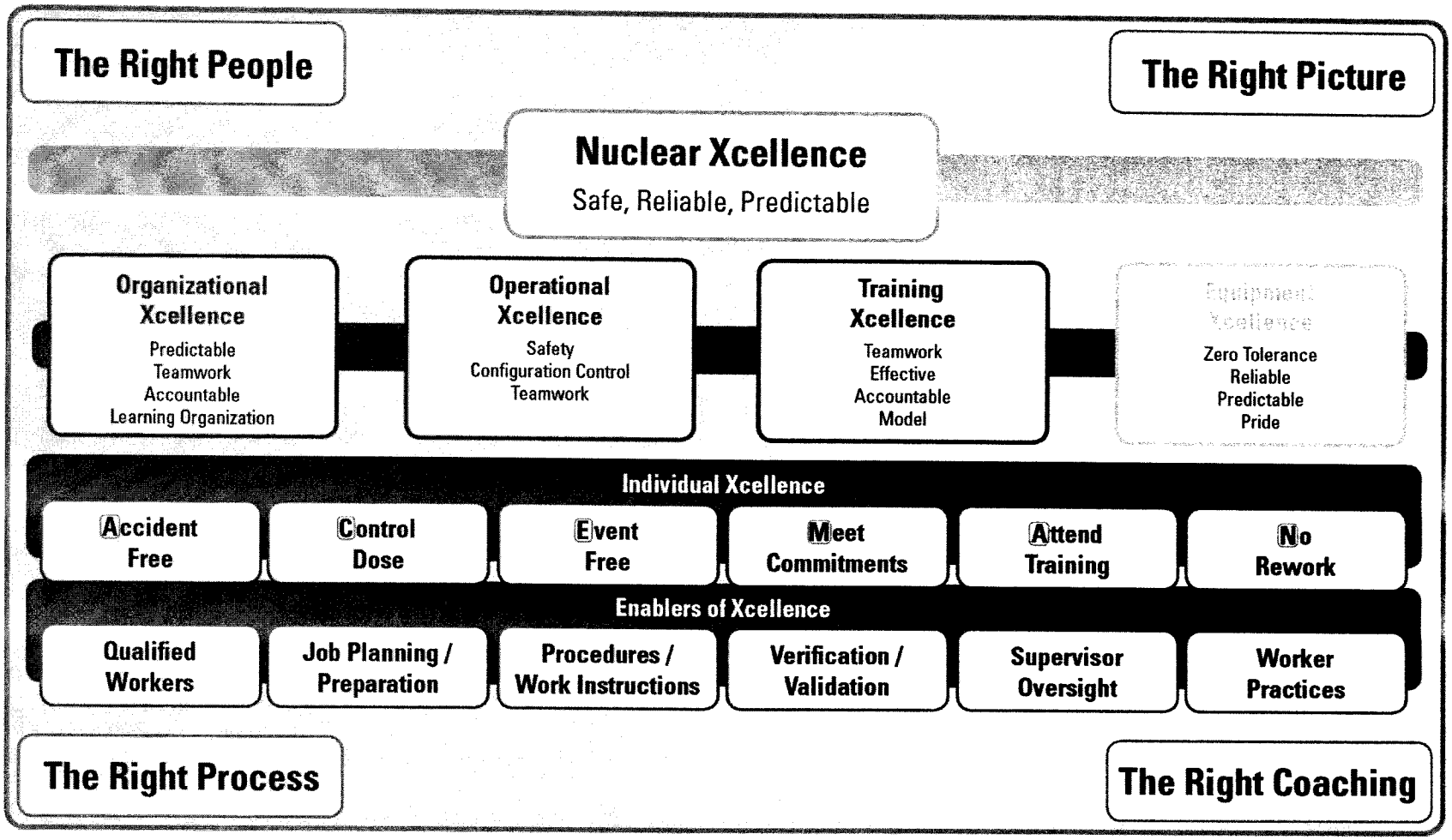
Regulatory Performance

- September 1, 2009, the NRC Issued Mid-Cycle Review for the Prairie Island Nuclear Generating Plant
- Mid-Cycle Review Identified a Substantive Cross-Cutting Issue in the Area of Human Performance

Regulatory Performance

- Several of these Findings Shared Common Cross-Cutting Aspects:
  - Systematic Process
  - Conservative Assumptions
  - Documentation
  - Procedural Compliance

Picture of **Xcellence**



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Management Assessment of Station Performance

- Overall Station Performance
  - Safe, Reliable Performance
  - Increased Focus on Recognition of Risk
  - Sensitivity to Operational Issues
  - Reinforcing Individual Responsibility and Accountability

Performance Recovery Plan

- Timeline:
  - December 2008, Target Zero Human Performance Improvement Plan Developed
  - February 2009, Recovery Team Established and Six Common Causes Identified:
    - Conservative Decision-Making (Risk Management)
    - Procedure Use and Adherence
    - Work Package Quality
    - Human Performance Fundamentals
    - Timely and Effective Corrective Action
    - Thorough Evaluation of Problems

Performance Recovery Plan

- Timeline (cont'd):
  - June 2009, Performance Recovery Plan rolled out to Site
  - June 2009, Human Performance EXPO for all site personnel
  - July 2009, 95001 Inspection for AFW Valve Mispositioning Event
  - August 2009, Pre-Outage Dynamic Learning Activity, including supplemental outage personnel

Human Performance Cross-Cutting Issue

- Decision-Making/Systematic Process Aspect
  - Initiatives
    - Site All Hands / Crew Brief
    - Operability / Functionality Training
    - Integrated Plant Knowledge for Engineering
    - Risk Management Principles and Behaviors
    - Principles for a Strong Nuclear Safety Culture

Human Performance Cross-Cutting Issue

- Decision-Making/Conservative Assumptions Aspect
  - Initiatives
    - Operational Decision Making Tool in Place
    - Operational Decision Making Training
    - Assigned Operational Decision Making Coaches
    - Focus on "STOP when Unsure"
    - Revised Fleet Procedure for Integrated Risk Management

Human Performance Cross-Cutting Issue

- Resources/Documentation Aspect
  - Initiatives
    - Procedure Use Standards
    - Review and Consolidate Standards
    - Review and Adjust Procedure Level of Use
    - Identification of Critical Steps

Human Performance Cross-Cutting Issue

- Work Practices/Procedural Compliance Aspect
  - Initiatives
    - Human Performance Expo
    - Re-Rollout of Human Performance Tools
    - Increased Observations
    - Coaching / Reinforcement
    - Use of Flagging and Placekeeping

Current Human Performance

- Results
  - Reduction in Site Clock Resets
  - Increased Number of Operational Decision Making Issues
  - Higher Number of Reports for "Stop when Unsure"
  - Prevented Risk Situations during Refueling Outage
  - Increased Field Observation Hours

Current Human Performance

- Results (cont'd)
  - 100% of Work Order Tasks Screened for Risk
  - Over 1500 New Tags during Recent Refueling Outage
  - 300 Temporary Procedure Changes
  - 2400 Permanent Procedure Changes

Current Human Performance

- Behavioral Changes
  - Many Examples of "STOP when Unsure"
  - Critical Steps/Human Performance Tools Identified and Discussed at Pre-Job Briefs
  - Actual Risk Avoidance
  - Use of Human Performance Tools
  - Exhibiting a Questioning Attitude
  - Co-Worker Coaching
  - Interactive Pre-Job Briefs

Focus Areas

- Procedure Use Monitoring
- Human Performance Improvement Team
- Field Observation Quality
- Monitor HU Effectiveness Measures
- Work Package Quality Standards
- Work Order Feedback

Closing Comments

- Summary
  - Station Understands the Significance of the Issues
  - Station is Committed to Making the Changes Required to Improve Performance
  - Results and Behavior Changes Indicate Human Performance is Improving
  - Station Recognizes that Additional Improvements are Required

Closing Comments

- Vision

"We will achieve and sustain Excellence in Nuclear Safety through engagement of our people, trust in each other and our processes, and ownership of our plant"

Questions/Discussion

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