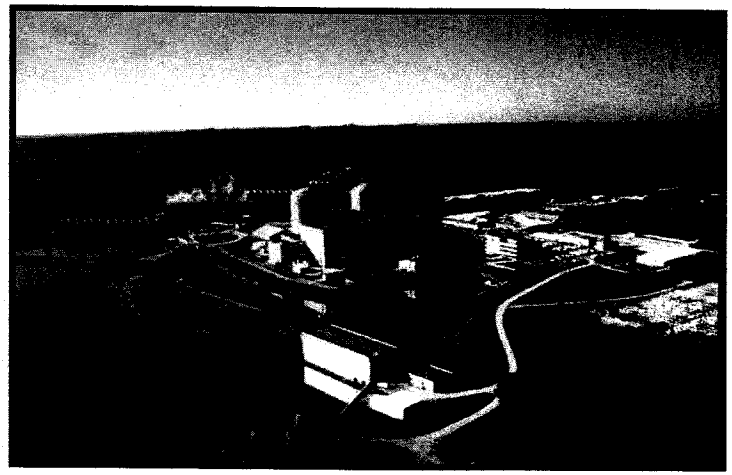
Xcel Energy

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**

Xcel Energy

The Right People

The Right Picture

Nuclear Xcellence

Safe, Reliable, Predictable

Organizational Xcellence
Predictable
Teamwork
Accountable
Learning Organization

Operational Xcellence
Safety
Configuration Control
Teamwork

Training Xcellence
Teamwork
Effective
Accountable
Model

Equipment Xcellence
Zero Tolerance
Reliable
Predictable
Pride

Individual Xcellence

- **A**ccident Free
- **C**ontrol Dose
- **E**vent Free
- **M**eet Commitments
- **A**ttend Training
- **N**o Rework

Enablers of Xcellence

- Qualified Workers
- Job Planning / Preparation
- Procedures / Work Instructions
- Verification / Validation
- Supervisor Oversight
- Worker Practices

The Right Process

The Right Coaching

© 2008 Xcel Energy Inc. | Xcel Energy is a registered trademark of Xcel Energy Inc. | Northern States Power Company - Minnesota; Northern States Power Company - Wisconsin; Public Service Company of Colorado, and Southwestern Public Service Company. Xcel Energy Companies | 08-11-2.7

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

Xcel Energy®

RESPONSIBLE BY NATURE™