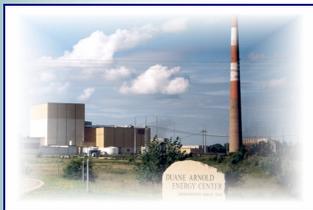




NMCC
Committed to Nuclear Excellence



Nuclear Management Company LLC. NRC Region III Briefing - Engineering

November 2004

NMCC
Committed to Nuclear Excellence

Agenda

- Introductions
- NMC Fleet Presentation
- Plant Presentations
 - Kewaunee
 - Palisades
 - Point Beach
 - Monticello
 - Duane Arnold
 - Prairie Island



NMC Engineering Programs

- NMC Engineering Programs Organization
 - Fleet organizational reporting for all Engineering Program personnel
 - Site implementation and ownership
 - Fleet establishment of requirements and technical direction
- Program Health process
 - Fleet Standards
 - Select Fleet scope of programs
 - Develop fleet standards
 - Gap analysis
 - Improvement plan for correcting gaps
 - Track gap closure through annunciator panel
 - One of the inputs to Program Health



NMC Engineering Programs

- Program Health process
 - Program Health
 - Systematic/objective approach
 - Thorough/diverse set of inputs
 - Displayed as a color coded annunciator panel
 - Used as input to review meetings, performance appraisal, etc.
 - Each site's performance is rolled into a single grade point average
- Engineering Program improvement
 - Staffing
 - Program Health GPA has increased
 - Compliance with standards
 - Reduction of red/yellow programs



NMC Engineering Programs

- Engineering Program Improvements
 - Engineering Program Successes
 - Fleet Welding
 - ISI Programs at MNGP and PINGP
 - Flow Accelerated Corrosion
 - AOV Program development
 - Engineering Program Focus Areas
 - Appendix R and Fire Protection
 - PMO projects
 - EQ Enhancement project



Kewaunee

- Main Focus Areas
 - Long Standing Issues Resolution
 - System Engineering Update
 - Linked Design Basis Data
 - Human Performance Initiatives



Kewaunee

- Long Standing Issues Resolution
 - Material Improvements
 - New Reactor Head Installed
 - Split Pin Replacement Completed
 - New Analog Rod Position Indication (NARPI) Installed
 - Reactor Coolant Pump (RCP) Seal Replacements
 - Control Room Damper Replacements



Kewaunee

- System Engineering Status
 - System Engineering Outage Involvement
 - Diesel Generators
 - Circulating Water Intake Cleaning
 - Radiation Monitoring Troubleshooting
 - NARPI Replacements
- Fleet Support for Department Startup



Kewaunee

- **Linked Design Basis Data**
 - **System Functional Matrices (SFM) Status**
 - External review completed
 - Service Water SFM issued
 - Future Plans
 - **Electronic Data Status**



Kewaunee

- Human Performance Status
 - Product Specific Coaching Cards
 - Training planned for 1st Quarter
 - Quality Review Team Results
 - Errors analysis



Palisades

- Main Focus Area
 - Palisades 2004 Reactor Head Inspection & Repair Activities
 - Palisades' Unique Features
 - Major Activities
 - Decision Making
 - Teamwork
 - Results



Palisades

- Unique Features
 - Nozzle Extensions
 - Nozzle Support Grid
 - Reactor Head Lift Rig
 - Thermal Sleeves



Palisades

- Major Activities
 - Volumetric Inspection (Ultrasonic Testing with UT Leak Path)
 - Nozzle Inside Diameter Scoring
 - Bare Metal Visual Inspection
 - J-Groove Weld Surface Inspection (Dye Penetrant Testing)
 - Nozzle Repairs



Palisades

- Decision Making Logic Charts
 - Developed Pre-Outage
 - UT with Leak path
 - Visual Inspection
 - Supplemented Based on Initial Findings
 - Scoring of Nozzle Inside Diameter
 - UT Leak path on Two Penetrations



Palisades

- Teamwork
 - Fleet Participation
 - Materials
 - Non-Destructive Examination
 - Challenging of Actions and Conclusions



Palisades

- Teamwork
 - Industry Participation
 - Industry Peers
 - Industry Working Group Members
 - Vendors



Palisades

- Results
 - Successful
 - Characterization and Evaluation of Nozzle Inside Diameter Scoring
 - Detection and Verification of Linear Penetration Test Indications in 2 J-Groove Welds
 - Nozzle Repairs



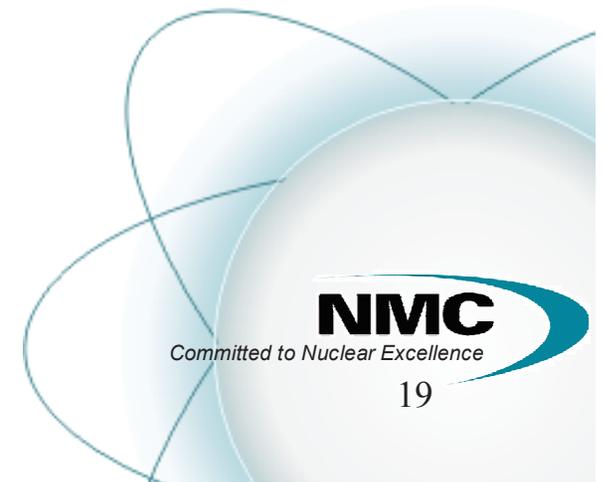
Point Beach

- Main Focus Area
 - Confirmatory Action Letter Focus Areas
 - Engineering Organizational Effectiveness
 - Quality Engineering Products
 - Operations/Engineering Interface
 - Human Performance
 - Equipment Issues/Backlogs



Point Beach

- Engineering Organizational Effectiveness
 - Quality Engineering Products
 - Quality Review Team
 - Engineering Safety and Design Review Group
 - Effectiveness Review Results
 - Operations/Engineering Interface
 - Operational Decision Making Model
 - Ensures continued safe operation
 - Roles and Responsibilities
 - Potential Consequences
 - Short and Long-term Risk
 - Implementation Plans
 - Examples



Point Beach

- Engineering Organizational Effectiveness
 - Operations/Engineering Interface (cont'd)
 - Increased Engineering Support
 - System/Plant Engineering
 - Reactor Engineering
 - Troubleshooting
 - Operator Burden
 - Plant Health Committee



Point Beach

- Engineering Organizational Effectiveness
 - Engineering Human Performance
 - Training
 - Focus on pre-job briefs
 - Human Performance investigations
 - Trend



Point Beach

- Engineering Organizational Effectiveness
 - Equipment Issues/Backlogs
 - Resolution of Station issues
 - Fire Protection
 - Operable but Degraded/Non-Conforming
 - Maintenance Rule
 - Functional Failures
 - In-Service Testing program equipment
 - Work Order backlog



Point Beach

- Engineering Organizational Effectiveness
 - Challenges
 - Continued focus on Human Performance
 - Expanding use of Operational Decision Making model
 - Continued Work Order backlog reduction
 - Continued operation procedure backlog reduction



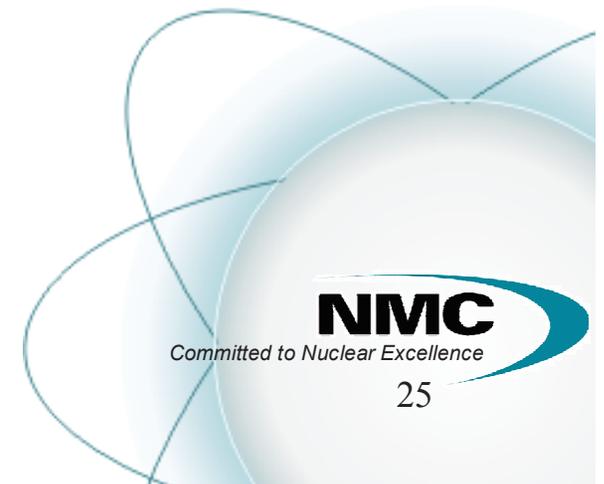
Monticello

- Main Focus Areas
 - Program Engineering
 - Examples
 - Configuration Management Initiatives



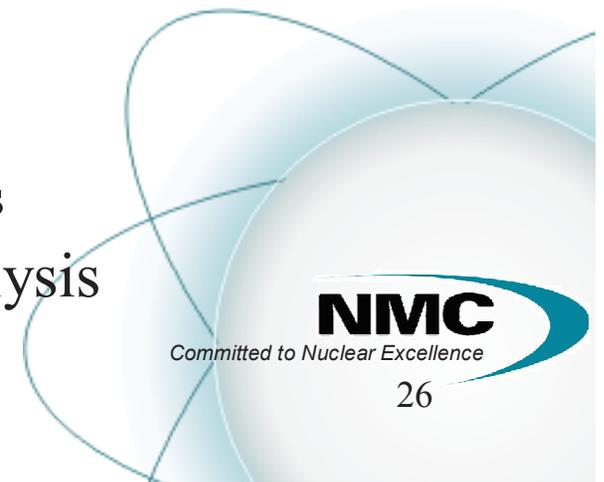
Monticello

- NMC Engineering Programs organization
 - Established and staffed Engineering Programs Department at Monticello.
 - Initial analysis complete with recovery plans.
 - More intrusive look into programs now underway.
 - Examples:
 - PRA
 - Appendix R



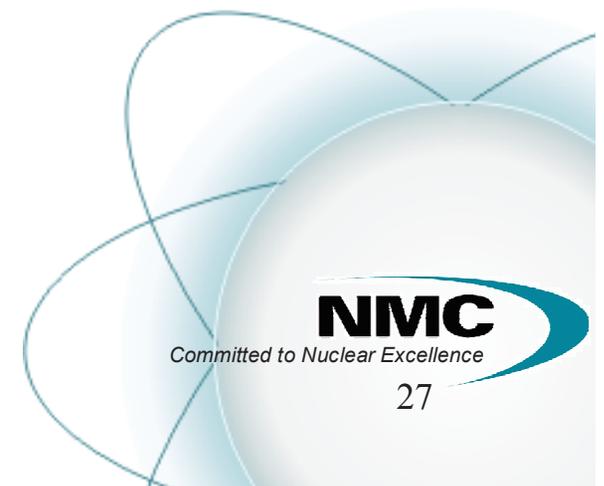
Monticello

- Enhanced Fleet Support
 - Critical Review During Reconstitution
 - Cable separation
 - Safety Relief Valve Control Modification
 - Hot Short
 - RHRSW cable Modification in Intake Structure
 - MOV Modification
 - Ventilation issues (Control Room Ventilation and Non-Safety Related Ventilation)
 - Other Modifications
 - Emergency Lighting
 - Exemption Request Related Modifications
 - Reconstitution of Safe Shutdown Analysis



Monticello

- Current CDF
- Internal flooding is significant contributor
- Reduce risk:
 - Implementation of Modifications
 - Procedure changes
- 2005 RFO Impact



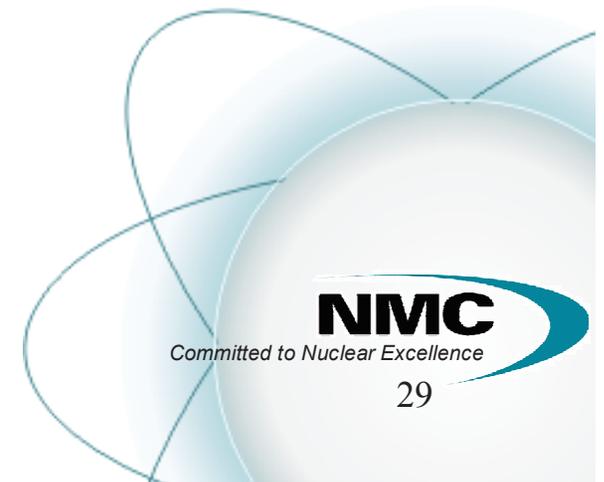
Monticello

- Configuration Management Initiatives
 - Design Basis Documents Update
 - Status
 - Timeline
 - Calculation database
 - One database with relational links
 - Inputting Purpose paragraph of older calculations
 - Configuration Management Fleet Support
 - Peer group established



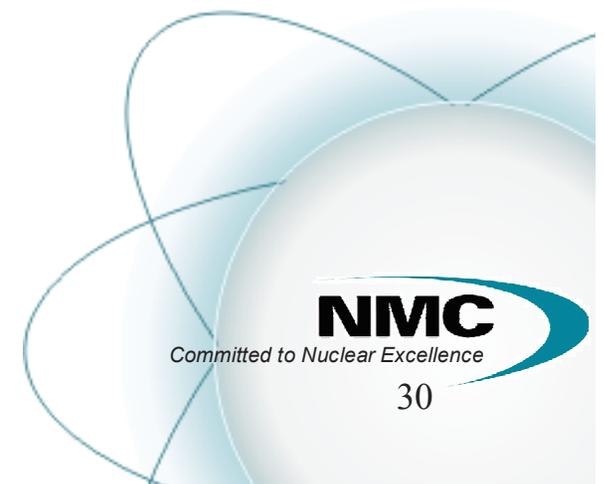
Duane Arnold

- Main Focus Area
 - Equipment Reliability
 - Standardized Equipment Reliability Plan
 - Equipment Reliability Coordinators
 - “Top 10” equipment issues list
 - Plant Health Committee (PHC)
 - Common performance indicators
 - AP-913 monitoring by PHC
 - Operator Burden reduction



Duane Arnold

- Equipment Reliability plan implementation
 - Preventive Maintenance Optimization
 - Condenser Reliability Plan
 - Diesel Generator Plan
 - Feedwater Reliability Plan
 - Spare Emergency Core Cooling System pump motors
 - Dry Well Cooler Plan



Duane Arnold

- Equipment Reliability Results
 - Focus on equipment
 - Prioritization
 - Management Sponsorship
 - Equipment performance
 - Opportunities



Prairie Island

- Main Focus Area
 - Equipment Reliability
 - Accomplishments
 - Areas of Focus



Prairie Island

- Accomplishments
 - 4 Large projects
 - Security
 - U-1 Steam Generator replacement
 - Reactor Head replacement
 - Dry Cask Storage



Prairie Island

- Accomplishments
 - Outage
 - Reduction of Operator Burden
 - 20 targeted issues
 - Enhanced reliability and performance
 - Focused improvements based on:
 - Engineering programs
 - System Health



Prairie Island

- Focus Areas
 - Equipment Reliability
 - Burning Platform
 - Site awareness
 - Excellence Plan
 - Equipment clock reset program
 - Focus the site
 - Limited number of projects
 - Team approach
 - Individual performance
 - Match people and job
 - Challenge boards
 - Accountability

