



Point Beach Nuclear Plant

Excellence Plan



June 24, 2003



Agenda

Purpose/Objective

Mano Nazar

Auxiliary Feedwater Issue

Fred Cayia

Path to Excellence

Fred Cayia

Excellence Plan Development

Doug Johnson

Excellence Plan Execution

Fred Cayia

Progress to Date

Dan Fadel/ Joe Jensen

Closing Remarks

Mano Nazar



Purpose and Objective

- Describe Actions Taken to Improve Auxiliary Feedwater System Reliability
- Describe Development of the Point Beach Excellence Plan
- Present Focus Areas of the Point Beach Excellence Plan for Sustained Performance Improvement
- Present Progress Made on Key Focus Areas
- Discuss Point Beach Preparation for IP95003 Inspection



Auxiliary Feedwater Issue Description

- Air Operator Recirculation Valve
 - Self-Identified During Probabilistic Risk Analysis Upgrade
 - Potential For Loss of Instrument Air Event During Which the AFW Recirculation Valves Fail Closed in Steam Generator Overfill or Overcooling Conditions Coincident with Procedurally-Directed Operator Action To Secure AFW Forward Flow

- Recirculation Line Orifice Issue
 - NMC Identified Potential For Blockage From Service Water Following Loss of Normal AFW Supply
 - Potential For Fouling of Recirculation Line Orifice Coincident With Procedurally-Directed Operator Action To Secure AFW Forward Flow



Auxiliary Feedwater Issue Corrective Actions

- Operator Procedures Revised / Operators Trained
- Open Function of Recirculation Valve Made Safety Related
- Installed Back-up Pneumatics on Air Operated Recirculation Valves
- Integrated Probabilistic Safety Assessment into Emergency Operating Procedure Revision
- Replaced Recirculation Line Orifices—March 2003
- Modifications for AFW System Power Supply Issues Completed by July 21, 2003



Auxiliary Feedwater Issue Independent Assessment

- Performed Independent Licensing and Design Basis Review for Auxiliary Feedwater System
 - Performed by Industry Experts
 - Oversight by Expert Panel
 - Validation Team Independent at Point Beach
 - Developed a Derived License and Design Basis
- System Review Concluded AFW Could Perform Design and License Basis Functions



Path To Excellence

- Leadership Turning Point
 - Orifice Issue - October 2002
 - Reflected Organizational and Process Weaknesses
 - Impetus for Fundamental Course Change



Path To Excellence

- Leadership Team Focus and Alignment
 - December Offsite Leadership Team Retreats
 - Management Recognized The Need to Address Known and Unknown Issues
 - Outcome - Alignment on 3 Focus Areas
 - Corrective Action Program
 - Emergency Planning Infrastructure
 - Design Modification Process



Path To Excellence

➤ Revitalized Leadership

- Reorganization Announced Early January
- Strengthened Plant Manager's Team
- Operation's Leaders (SROs) to Strengthen Other Organizations
- The Right People for the Right Jobs



Path To Excellence

- Nuclear Management Company Focus on Point Beach
 - NMC Organizational Effectiveness Assessment
 - December 2002 – January 2003
 - Assessment and Stream Analysis to Identify Drivers and Barriers to Performance Improvement
 - Independent AFW Assessment
 - Senior Vice President Assumed Responsibility for Point Beach Oversight February 2003



Path To Excellence

Leadership Vision and Mission

Vision:

“Continuous Pursuit of Enduring Excellence”

Mission:

“Working Together to Achieve Sustained, Safe, Reliable, and Economic Generation of Electricity Using Nuclear Power”



Path To Excellence

- Point Beach Picture of Excellence
 - Sustainable Improvement Driven By The Excellence Plan
 - Focus on Four Pillars of Excellence
 - Organizational
 - Operational
 - Equipment
 - Training
 - Focus on Long Term Improvements



Path To Excellence

- Vision for Point Beach's Future
 - An Organization That Is Viewed by All Stakeholders As Having a “Self Improving Culture” and Being a “Learning Organization”
 - Improvement Driven by an Industry Leading Corrective Action Program
 - Sustainable Improvement Driven by a Culture Characterized by Organizational and Individual Accountability



Path To Excellence

➤ Excellence Team

- A Strong Cross-Functional Team Formed to Improve Organizational Focus and Create Infrastructure
 - Experienced Industry Expertise Providing Oversight and External Perspective
 - Capable NMC Leader with Multi-Site Experience



EXCELLENCE PLAN

- Multi-Disciplined Excellence Team Formed to Support Station's Goal of Sustainable Performance Improvement
- Primary Focus of Excellence Team:
 - Aid in Independently Identifying & Understanding Performance Issues
 - Aid in Understanding Causes of Performance Issues
 - Aid Organization in Preparing and Implementing the Excellence Plan
 - Aid in Resolution of Issues and Common Causes
 - Monitor Execution of the Excellence Plan and Facilitate Adjustments as Required

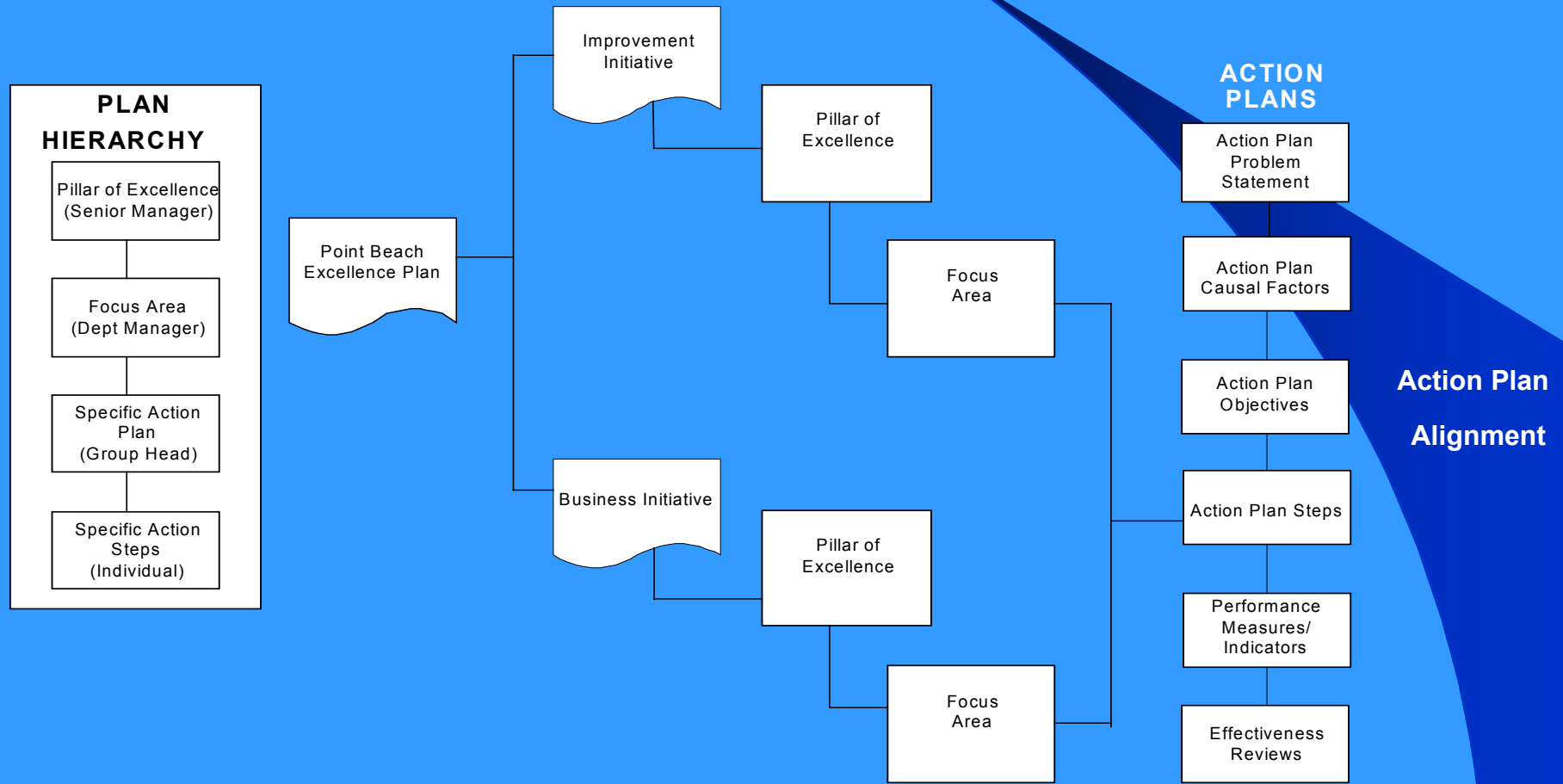


EXCELLENCE PLAN

- Revision 0 of the Excellence Plan Issued on May 30
- Developed Using Formal, Structured Process
- Attributes of Excellence Plan
 - Sufficient Scope to Address Station Performance Issues
 - Addresses Common Causes and Drivers of Performance Issues
 - Risked Informed Prioritization of Actions
 - Integrated Departmental Initiatives
 - Effectiveness Reviews and Performance Indicators Will Determine if Desired Results Achieved
 - Rigorous Monitoring and Closeout Processes



EXCELLENCE PLAN





EXCELLENCE PLAN

- Identification of Performance Issues
 - Database Created Which Captured Observations & Findings From Recent Assessments, Inspections and Audits
 - Sorted Data by Department, Focus Areas, and Trend Codes to Look for Performance Trends and Long-standing Issues
 - Identified Trends and Issues Compared Against Action Plans Contained in Revision 0 of the Excellence Plan for Gaps
 - Database Analysis Demonstrated That the Excellence Plan Addresses Major Issues
 - Currently Assessing Approximately 20 Issues/Areas Which May Require a Revision to an Existing Action Plan or the Creation of a New Action Plan



EXCELLENCE PLAN

- Inspection Procedure 95003 Mapping Analysis
 - Mapped Recently Completed Site Assessments Against the Requirements in NRC Inspection Procedure 95003
 - Purpose Was to Determine Which 95003 Inspection Areas Have Not Been Recently And/Or Sufficiently Self-assessed
 - Excellence Team Recommended That PBNP Conduct Approximately 25 Focused Assessments
 - Focused Assessments Are in Progress
 - Applicable Assessment Findings Will be Built Into the Excellence Plan



EXCELLENCE PLAN

- Identification of Common Causal Factors
 - Streaming Analysis of Findings From Organizational Effectiveness Assessment Completed
 - Identified 5 Primary Drivers/Causes of Organizational Performance Issues
 - Common Factors Assessment of Root Cause Evaluations Completed
 - Identified 3 Primary Common Causes
 - Validation That the Excellence Plan Addresses These Common Drivers / Causes in Progress



EXCELLENCE PLAN

- Revision 1 of Excellence Plan Will Be Issued by July 11
- Ongoing Work on Revision 1 is Focused on:
 - Prioritization and Resource Loading
 - Action Plan Integration
 - Refinement of Objective Statements and Alignment of Performance Indicators and Effectiveness Reviews
 - Addition of New Plans or Plan Revisions Based Upon Ongoing Analysis Work



EXCELLENCE PLAN

- Excellence Plan Built Upon 4 Pillars of Excellence
 - Organizational Excellence
 - Operational Excellence
 - Equipment Excellence
 - Training Excellence
- Pillars Supported by 19 Focus Areas
- Focus Areas Supported by Over 100 Action Plans



Excellence Plan

Focus Areas

- Human Performance
- Oversight and Assessment
- Culture Survey
- Communications
- Management Effectiveness
- Engineering Organizational Effectiveness
- Engineering Programs
- Configuration Management
- Emergency Preparedness
- Corrective Action Program



Excellence Plan

Focus Areas

- Significant Operating Event Report 02-04, “Reactor Pressure Vessel Head Degradation at Davis-Besse Nuclear Power Station”
- Work Management
- Business Initiatives
- Technical Procedure Quality
- Operationally Focused
- Security
- Equipment Reliability
- Training Programs
- Training Organizational Effectiveness



Excellence Plan

- Our Excellence Plan Is a Roadmap to Create and Sustain Improvements
- The Objective Statements Associated with Each Excellence Plan Action Plan are Forward Looking and Define What We Want to Achieve
- Performance Indicators and Effectiveness Reviews Assure Progress Is Being Made and Desired Objectives Are Accomplished
- Site Leadership Team Rigorously Monitor Execution of The Excellence Plan



Excellence Plan

Corrective Action Program

Focus Area

- Problem Statement
 - Corrective Action Program was not used as a Management Tool for Continuously Improving Performance
- Causal Factors
 - Management Oversight of the Program Was Ineffective
 - Issue ownership was not reinforced to Ensure Timely and Effective Resolution of Issues
 - Roles, Responsibilities, and Expectations for Supporting the Corrective Action Program Were Not Understood
 - Corrective Action Screening Process Was Not Effective at Prioritizing Significant Issues



Excellence Plan

Corrective Action Program

Focus Area

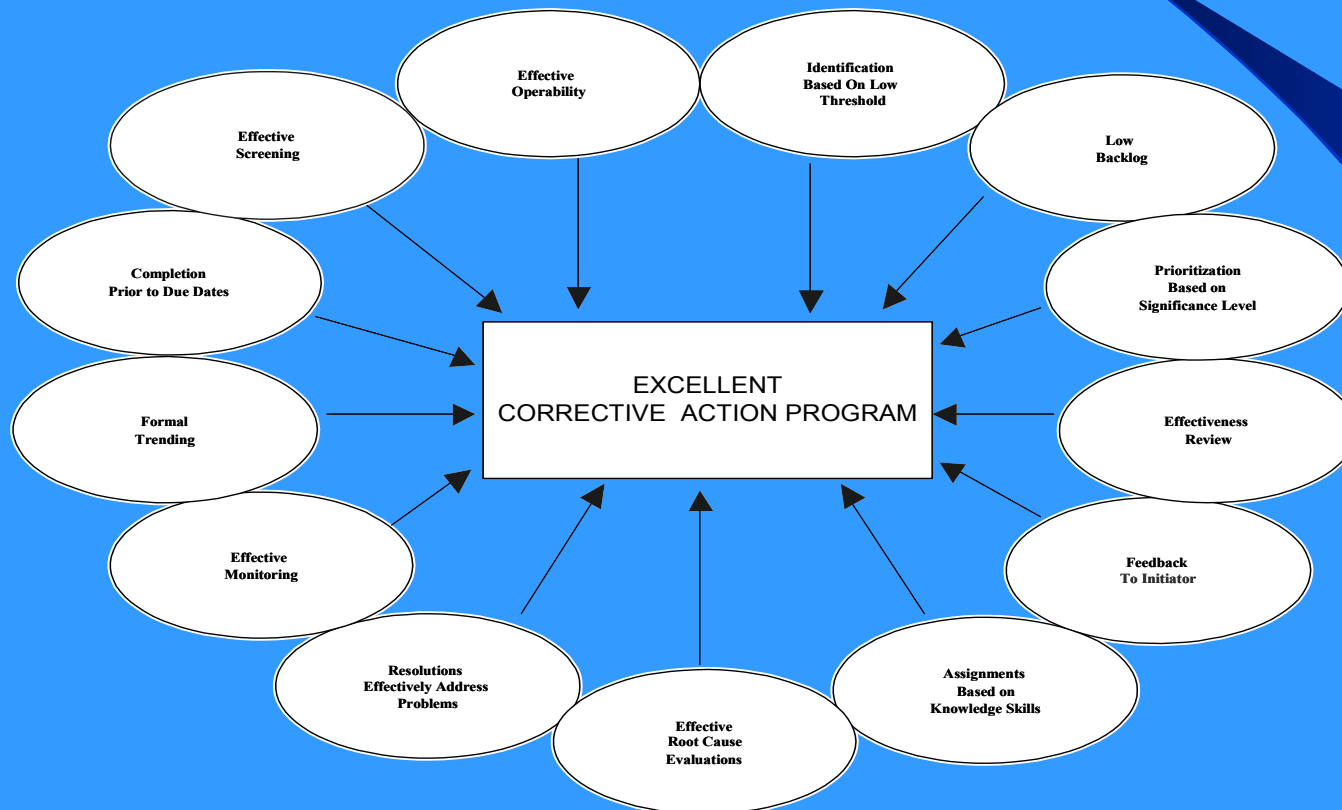
➤ Objective:

Excellent Corrective Action Program Used By Management to Drive Continuously Improving Performance

- Corrective Action Program Roles, Responsibilities, and Expectations Understood
- Improved Screening Process that Focuses on Prioritization of Significant Issues
- Site Culture that Promotes Timely Actions to Resolve Identified Issues
- Program Oversight that Monitors and Provides Feedback to Management on the Effectiveness of the Corrective Action Program



Corrective Action Program Picture of Excellence





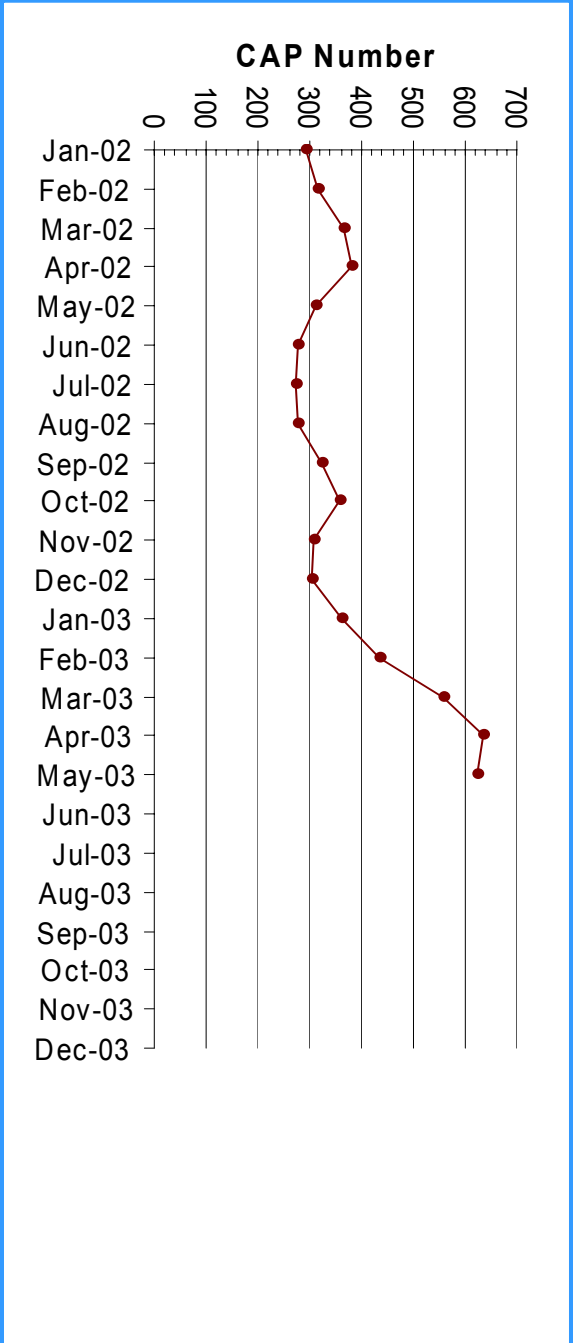
Corrective Action Program Progress-to-Date

- Implemented a Formal, Rigorous Process for Screening Corrective Actions
- Lowered the Threshold for Reporting Problems and Improved Initiator Feedback
- Improved the Quality of Resolutions to Corrective Actions
- Strengthened Monitoring the Corrective Action Program Performance
- Strengthening Accountability in the Timeliness of Corrective Actions



Corrective Action Program Progress-to-Date

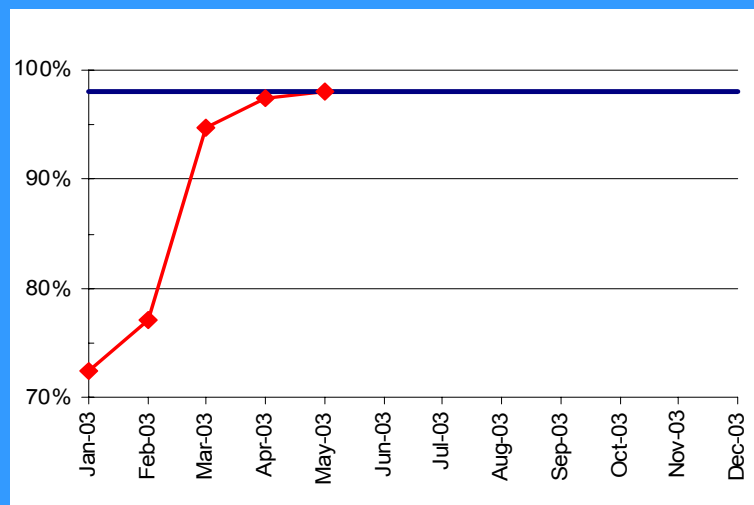
CAP Generation by Month



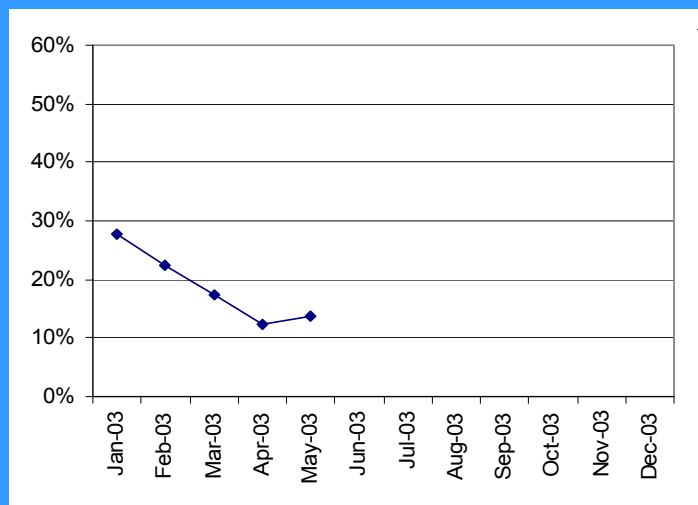


Corrective Action Program Progress-to-Date

Corrective Actions Closed on Time



Corrective Actions Due Date Extensions

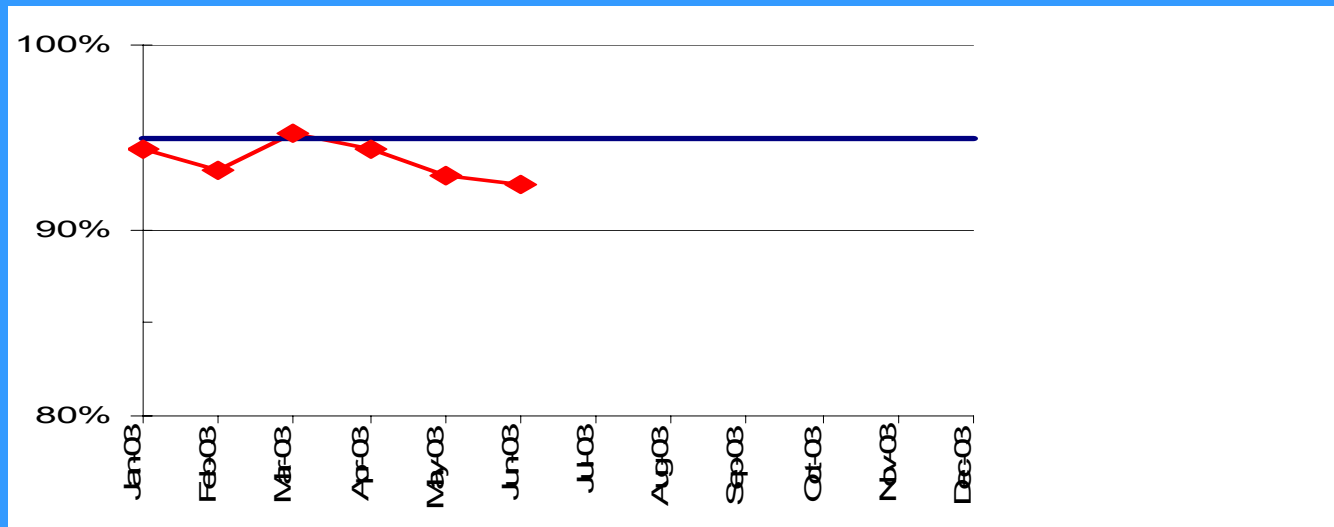




Corrective Action Program Progress-to-Date

➤ Quality Check Acceptance

- Percentage of Actions Accepted During Quality Check / Technical Review Panel





Excellence Plan

Emergency Planning Infrastructure

Focus Area

➤ Problem Statement

- Emergency Planning Infrastructure Was Not Consistently Maintained

➤ Causal Factors

- Processes and Facility Information Were Not Captured in Procedures or Guidelines
- Lack of Formal Drill/Exercise Development Procedures.
- Evaluations of Emergency Plan Changes Sometimes Inconsistent with Regulation
- Emergency Planning Program Personnel Were Not Effective at Maintaining the Program Infrastructure



Excellence Plan

Emergency Planning Infrastructure

Focus Area

➤ Objectives

A Robust Infrastructure Exists That Supports The Emergency Planning Program at Point Beach

- Line Ownership of Emergency Preparedness Program to Maximize Program Oversight
- Procedures and Guidelines In Place That Formalize Emergency Preparedness Processes and Requirements
- Formal Drill and Exercise Procedures
- Emergency Plan and Supporting Procedures Are Aligned With Regulation

Emergency Planning Picture of Excellence





Emergency Planning Progress-to-Date Organization & Staff Proficiency

- EP Manager Assigned Specific to Point Beach
- Hired Personnel With Previous EP Experience (EP Manager and EP Senior Coordinator)
- Hired a Supervisor With Strong Radiation Protection/Chemistry/Operations Background
- All Current Staff Has Attended NEI Training on EP
- Defining Roles and Responsibilities for all EP Staff
- Creating Procedures and Job Aids for Major Responsibilities, then Cross-Training Staff



Emergency Planning Progress-to-Date

Plan/Procedures & ERO Proficiency

- Utilizing A Multi-Discipline Team to:
 - Excellent Support and Ownership by the Line Organizations
 - Review and Upgrade Plan and Procedures
 - Retrain ERO On Changes As Required
- As Part of the Upgrade, We Are Developing ERO Proficiency by:
 - Implemented On-Call Rosters for Key Duty Positions
 - Implementing a More Comprehensive Drill Schedule That Allows More Training Time for ERO Members Each Year
- ERO Drill Participation Improved
- Alert and Notification System Reliability Improved



Emergency Planning Progress-to-Date Infrastructure

- Implemented an EP Advisory Committee of Senior Station Management
- Implemented an EP Training Advisory Committee
- Revised Critique Process to Ensure Consistency and Review of all Pertinent Data
- Developed and Communicated an EP Vision And Mission for the Station
- Improved Implementation of the Corrective Action Program Within EP
- Utilizing a Multi-Discipline Team for Scenario Development
- Upgrading Document Control and Records Retention Practices for EP



Excellence Plan

Design Change Process

Focus Area

- Problem Statement
 - Auxiliary Feedwater Modification Issues Raised Questions Regarding Modification Quality
- Causal Factors
 - Expectations for Design Change Process Development Were Not Effectively Communicated
 - Quality Review Teams Were Not In-Place
 - Ineffective Management Oversight and Reviews of Modifications



Excellence Plan

Design Change Process

Focus Area

➤ Objectives

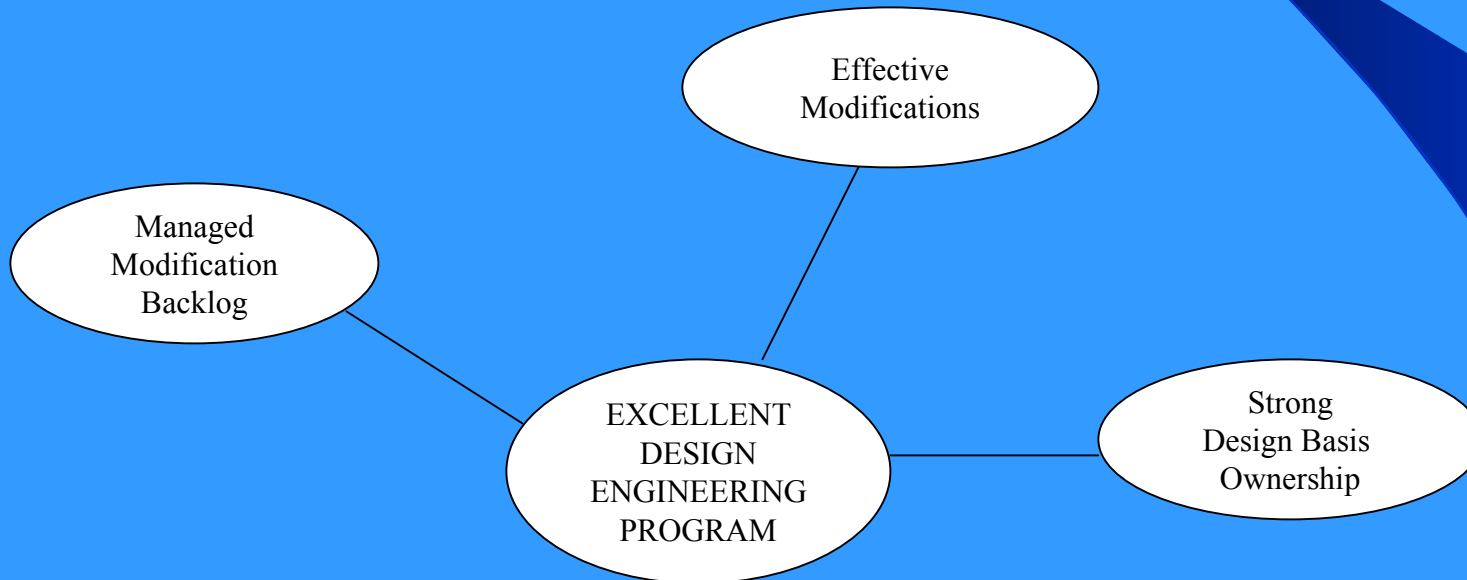
Modification Process That Consistently Evaluates Impact of Proposed Changes to Plant System, Structures, and Components and Effectively Resolves Identified Issues

- Engineering Personnel Understand Roles, Responsibilities and Expectations
- Modifications Are Reviewed by the Design Engineering Review Board
- Selected Design Modifications Are Reviewed by the Quality Review Team for Quality and Completeness
- Proceduralized Modification Process Being Implemented to Ensure Technically Accurate Modifications



Excellence Plan

Design Engineering





Engineering Progress-to-Date Design Change Process

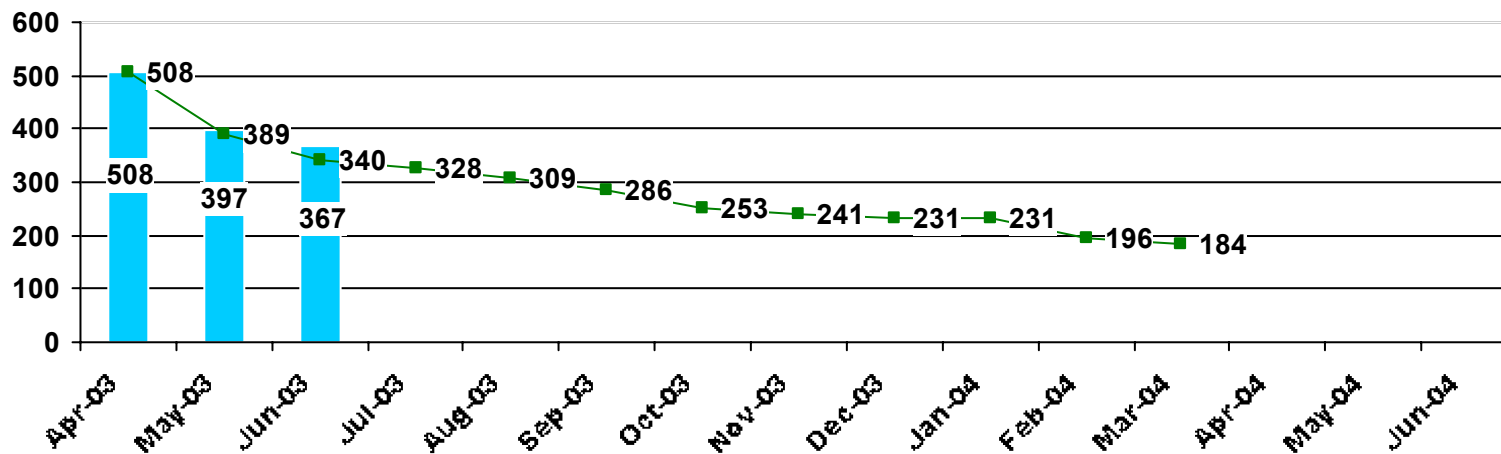
- Improvement In All Aspects of Engineering Support Program Training
- Initiate the Design Engineering Review Board
 - DERB Is Established and Functioning
- Utilize the Quality Review Team
 - QRT Is Implemented
- Formalize Backlog Reduction Methodology
 - Methodology Established for Modification Prioritization
- Fleet-wide Plant Modification Process Being Implemented
 - Conducted Training

Engineering Progress-to-Date



➤ Engineering Excellence Plan Activities

- Proposed Workdown Curve for All Actions Assigned to Engineering





Closing Remarks

- NMC and WE Energies Are Supportive of Point Beach Improvement Initiatives
- Point Beach Continues to Operate Safely
- Risk Significant Auxiliary Feedwater Issues Have Been Resolved
- We Looked Hard and Are Confident We Are Identifying Our Issues
- As a Learning Organization We Will Continue to Look Objectively to Identify and Resolve Issues
- Robust Plan for Sustainable Performance Improvement
- Progress Has Already Been Made In Key Areas
- We Are Prepared to Support Your Inspection Efforts