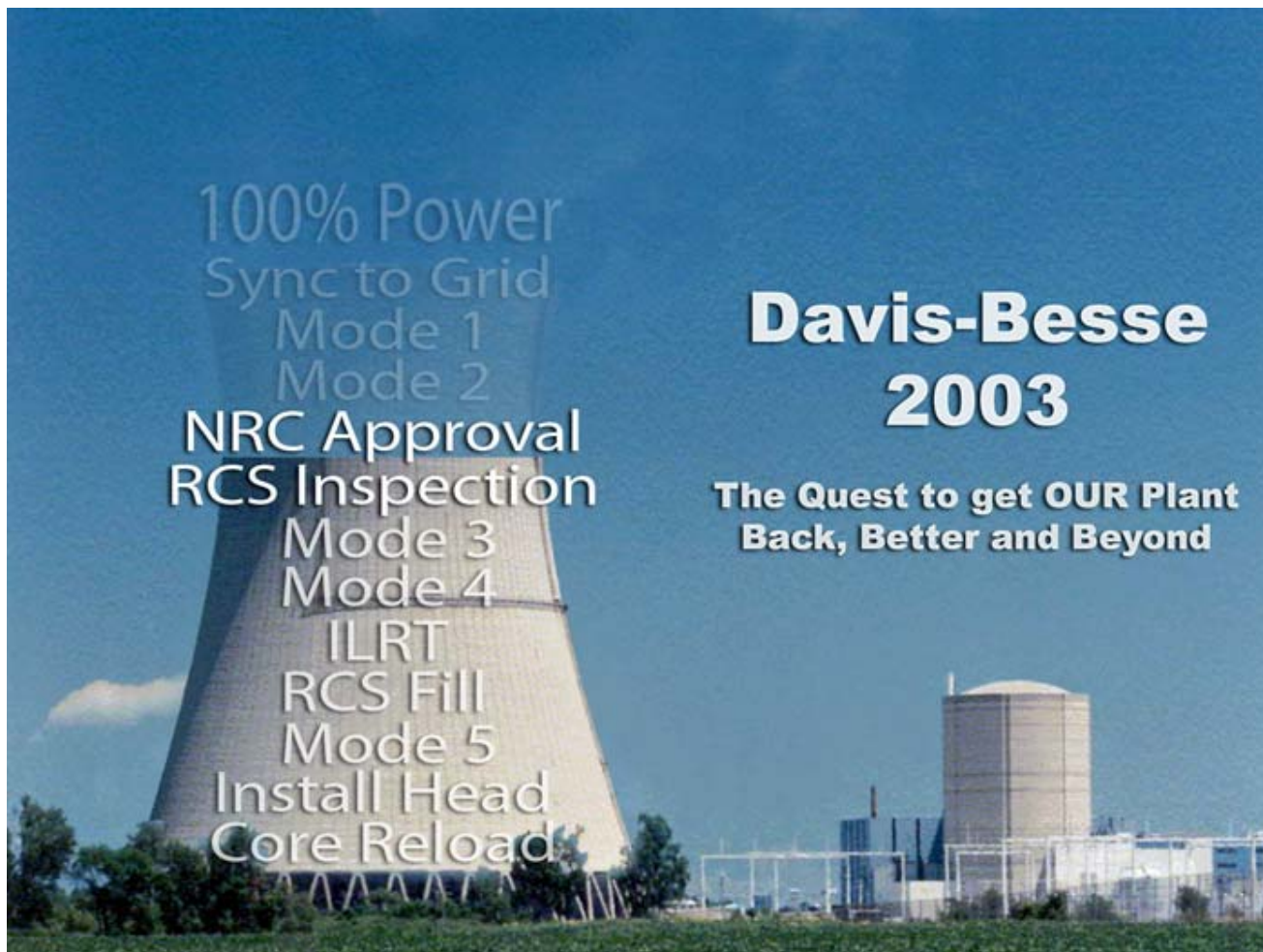


# ***Davis-Besse Nuclear Power Station***



## **Human Performance Meeting**

# Desired Outcomes

- Provide our assessment and conclusions of responses in our Safety Conscious Work Environment Survey
  - Overall survey results continue to show improvement
  - Several questions showed decline
- Communicate our assessment of Operations performance
  - Discuss operational areas requiring continued improvement
  - Provide Corrective Actions to ensure consistent operator performance
  - Provide our plan for Readiness Reviews and Effectiveness Assessments
- Demonstrate the FENOC commitment to both Safe and Effective Plant Operation

**Lew Myers**

**Chief Operating Officer - FENOC**

# Meeting Agenda

- Safety Conscious Work Environment.....Lew Myers
  - Survey Review Team.....Fred Von Ahn
  - Corrective Actions.....Lew Myers
  - Actions to Monitor for Effectiveness.....Lew Myers
- Operational Performance.....Mark Bezilla
  - Implementation of Management Tools.....Barry Allen
  - Corrective Actions.....Barry Allen
  - Ongoing Readiness Reviews and Effectiveness Assessments to  
Ensure Consistent Implementation of Management  
Tools.....Mark Bezilla

**Lew Myers**  
**Chief Operating Officer - FENOC**

# Background

## •Completed SCWE Survey (November 3)



### November 2003 SCWE Survey Results

# Background

## (continued)

- Conclusions presented to NRC in December 0350 Meeting (December 3)
- Information provided to site managers (November 21-December 8)
- Personnel interviews conducted (December 11)
- NRC request for further information (December 19)

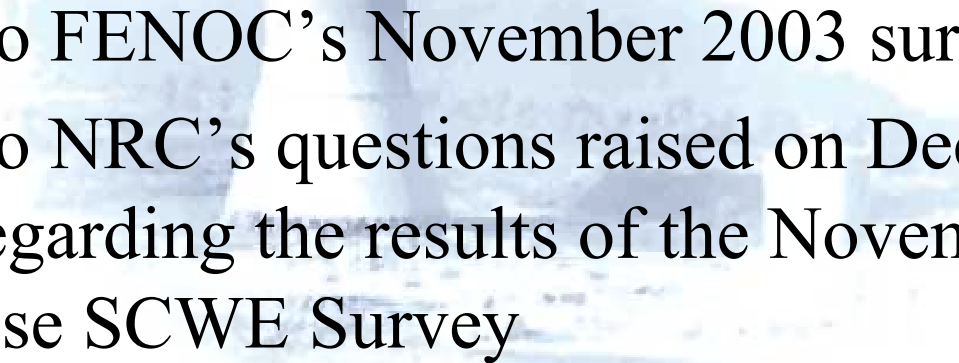
**Lew Myers**  
**Chief Operating Officer - FENOC**

# **Safety Conscious Work Environment Survey Review Team**



**Fred Von Ahn**  
**Vice President - FENOC Oversight**

# Purpose

- 
- A faint, blue-tinted background image of a nuclear power plant, showing the containment domes and cooling towers.
- Respond to FENOC's November 2003 survey results
  - Respond to NRC's questions raised on December 19th meeting regarding the results of the November 2003 Davis-Besse SCWE Survey




# SCWE Survey Review Team Charter

To objectively and comprehensively evaluate the apparent decline in certain areas of the November 2003, Safety Conscious Work Environment (SCWE) survey, determine causes of the apparent decline, and develop corrective actions and plans to monitor effectiveness of those actions



# Team

## SCWE SURVEY REVIEW TEAM MEMBERSHIP



NAME	COMPANY	YRS EXPERIENCE	AREA OF EXPERTISE
JOHN GRIFFIN ***	KESTREL GROUP	35	SCWE EXPERT
PAUL ZAFFUTS	MORGAN LEWIS	11	SCWE EXPERT/LEGAL
CONNIE LINCOLN	LINCOLN CONSULTING GROUP	24	ORGANIZATIONAL DEVELOPMENT BEHAVIORAL SCIENCES
ALAN FOX	LINCOLN CONSULTING GROUP	30	ORGANIZATIONAL DEVELOPMENT BEHAVIORAL SCIENCES
LINDA COOK	LINCOLN CONSULTING GROUP	24	ORGANIZATIONAL DEVELOPMENT BEHAVIORAL SCIENCES

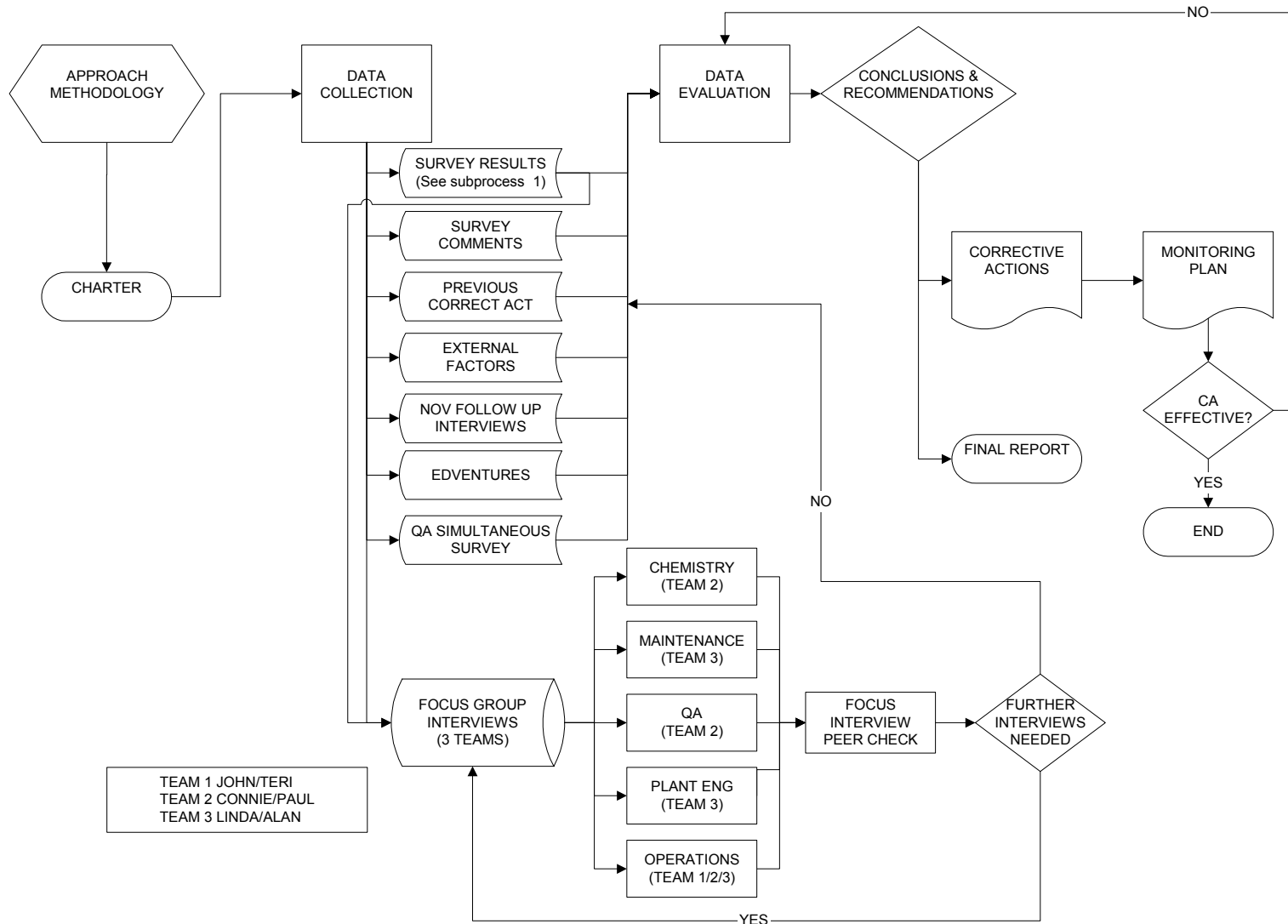
\*\*\* TEAM LEADER

FREDERICK VON AHN  
TEAM SPONSOR

# Objectives

- 
- A faded, blue-tinted background image of a nuclear power plant, showing the containment domes and surrounding structures.
- Describe Process Used To Collect and Evaluate Data
  - Discuss Results of Data Evaluation
  - Present Corrective Actions
  - Discuss Mechanisms to Monitor Effectiveness

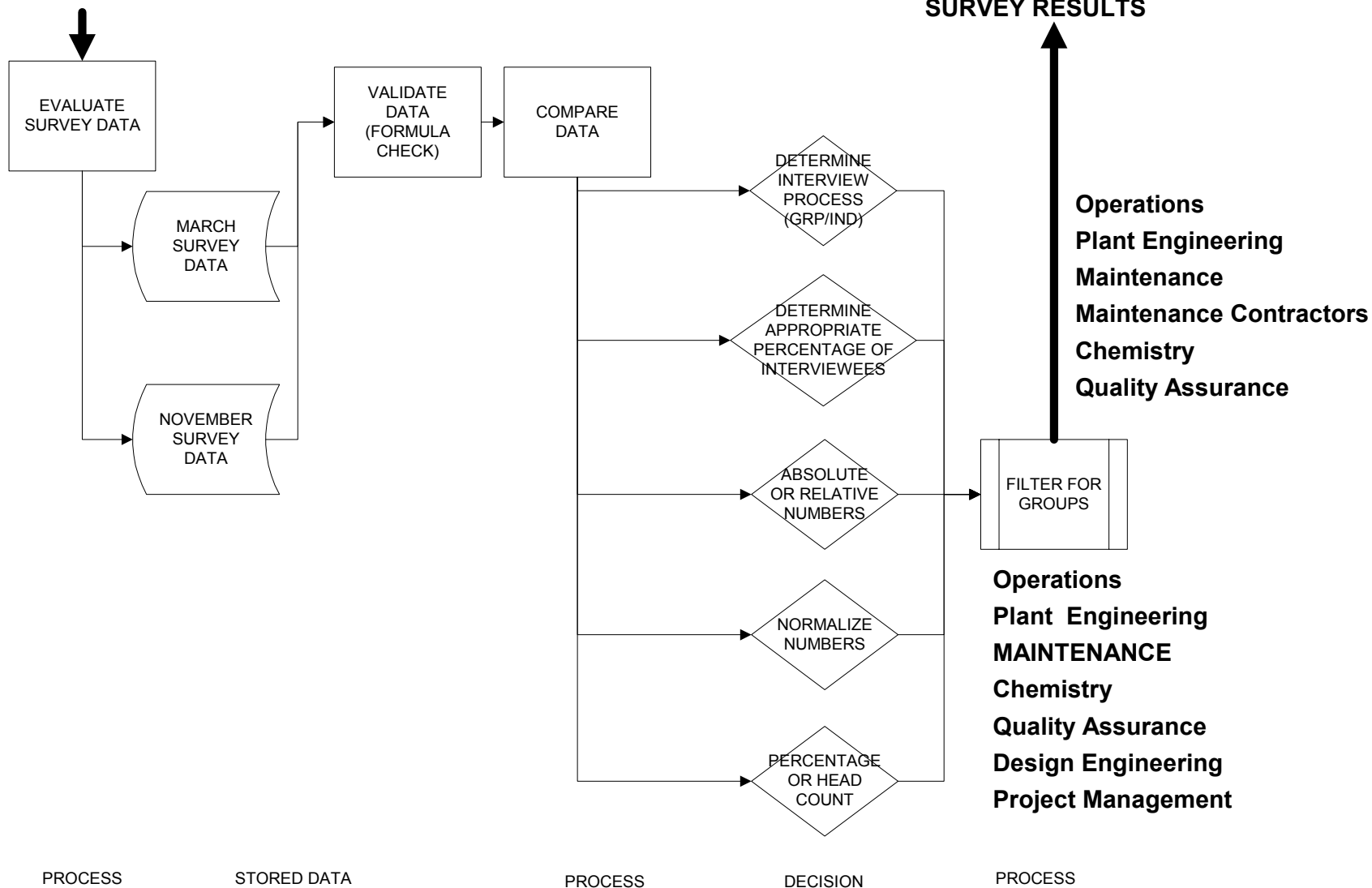
# COMPREHENSIVE PROCESS METHODOLOGY



## DETAILED SURVEY DATA PROCESSING

FROM MAIN PROCESS  
SURVEY RESULTS

TO MAIN PROCESS  
SURVEY RESULTS



PROCESS


STORED DATA

PROCESS

DECISION

PROCESS

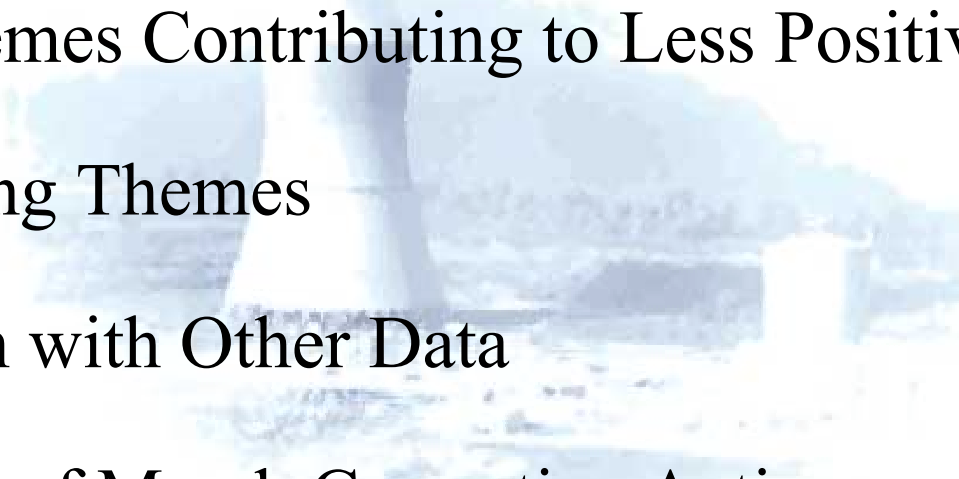
# Focus Group Interviews

- 
- A faded, light blue background image of a nuclear power plant, showing a large containment dome and other industrial structures.
- Structured Interviews
  - Experienced Interviewers
  - Generally 6 -7 Interviewees per Group
  - Forty-five Minutes to One Hour in Length

# Substantial Population Interviewed

Quality	77%
Chemistry	64%
Plant Engineering	59%
Operations	57%
Maintenance Contractors	54%
Maintenance	23%

# Data Evaluation

- 
- A faded, blue-tinted background image of a nuclear power plant, showing the containment domes and surrounding landscape.
- Section Themes Contributing to Less Positive Responses
  - Cross Cutting Themes
  - Comparison with Other Data
  - Assessment of March Corrective Actions



# Section Themes Contributing to Less Positive Responses

## •OPERATIONS

- Work hours, Schedule Shift Rotation
- Not all Operational Activities in Schedule
- Auxiliary Feedwater Testing during NOP Test contributed to Schedule over Safety Response
- Effectiveness of communication and implementation of October Crew Realignment

# Section Themes Contributing to Less Positive Responses

- PLANT ENGINEERING
  - Management Comments
  - Schedule Credibility (Preventive Maintenance)
  - Low Condition Reports Threshold
  - Work Hours

# Section Themes Contributing to Less Positive Responses

## •QUALITY ASSURANCE

- Two Specific Events During NOP Test Contributed to Schedule over Safety Response
- Perception that Management Does Not Fully Value QA Observations and Recommendations

# Section Themes Contributing to Less Positive Responses

- CHEMISTRY

- Single Event Involving Work Scheduling Influenced Survey Results (resolved)

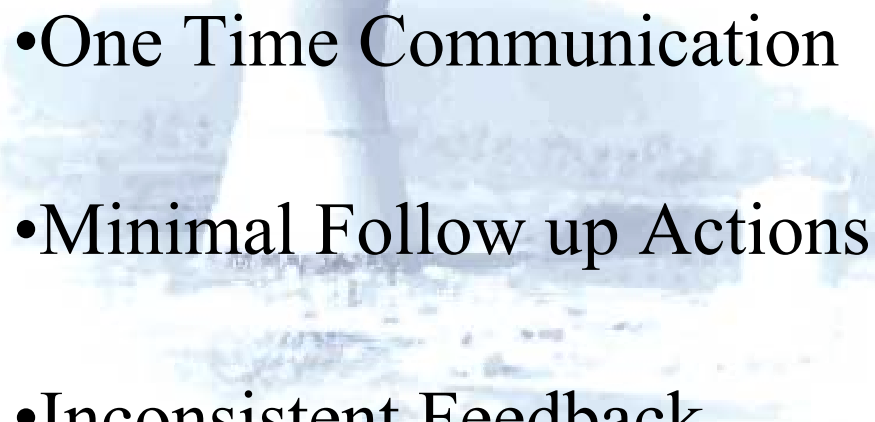
# Section Themes Contributing to Less Positive Responses

- 
- A faded, light blue background image of a nuclear power plant, showing the containment domes and surrounding structures.
- MAINTENANCE AND CONTRACTORS
    - Work hours
    - Confidence In Schedule
    - Low Condition Reports Threshold

# Cross Cutting Themes Contributing to Less Positive Responses

- 
- A faded, light blue background image of a nuclear power plant, showing a large containment dome and various industrial structures.
- Communications
  - Work Hours
  - Schedule Credibility
  - Management Comments
  - Low Condition Report Threshold

# March Survey Effectiveness

- 
- A faded, blue-tinted background image of a nuclear power plant, showing a large containment dome and surrounding structures.
- One Time Communication
  - Minimal Follow up Actions
  - Inconsistent Feedback



# Survey Review Team Concludes that SCWE Supports Restart

- All Groups Exhibit Positive Responses to Questions
- ECP Response Positive
- Safety Issues are Being Raised & Addressed Using Corrective Action Program
- Workers Understand Their Responsibility to Raise Safety Concerns
- Workers Feel Free To Raise Concerns
- Convergent Validity Exists for Conclusions

# Survey Review Team Identified Areas for Continued Improvement

- Change management process for:
  - Management Decisions
  - Actions Affecting Staff
  - Corrective Action Program Expectations
- Employee Concerns Program & SCWE Review Team needs greater visibility

# Corrective Actions



**Lew Myers**  
**Chief Operating Officer - FENOC**

# Strong Corrective Actions Taken Since November Survey

- Managers provided with section results
- Managers shared results of SCWE survey with employees
- Senior management met with section managers
- Interviewed employees on four specific questions
- All-Hands Meetings held with employees
- Implemented normal online scheduling process
- Levelized the Operations Department Work Schedule
- Added Operations Work Activities to Daily Schedule

# Strong Corrective Actions Taken Since November Survey

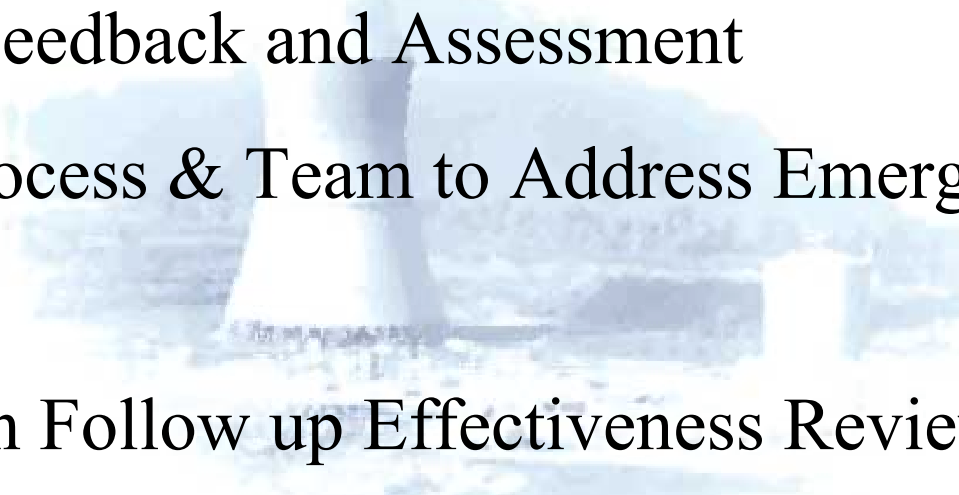
- Action taken to improve communications within Operations Department
- Moved the organization to an online organization and schedule
- Ensured operators were given time off prior to heat-up
- Readiness reviews focused on general themes
- Implemented continuous feedback
- Industry observers focusing on general themes
- Managers refreshed on SCWE
- Changes being made to the scheduling Nuclear Operating Procedure

# SCWE Survey Review Team

## Additional Actions

- Periodic Refresher Training on SCWE Principles (Supervisors and Above)
- Hold Management Accountable for Leadership In Action behaviors
- Reinforce CAP Expectations and benefits of a high volume/low threshold system
- Effectively utilize Change Management
- Increase Visibility of ECP and SCWERT
- Develop and communicate section specific corrective action plans
- Develop 2004 work plan and schedule

# Actions to Monitor for Effectiveness

- 
- A faded, blue-tinted image of a nuclear power plant, showing the containment domes and surrounding structures, serving as a background for the list.
- Real Time Feedback and Assessment
  - Establish Process & Team to Address Emergent SCWE Issues
  - Three Month Follow up Effectiveness Reviews
  - Next Survey to be Performed 4<sup>th</sup> Quarter 2004



# Conclusions

## SCWE at Davis-Besse Supports Restart

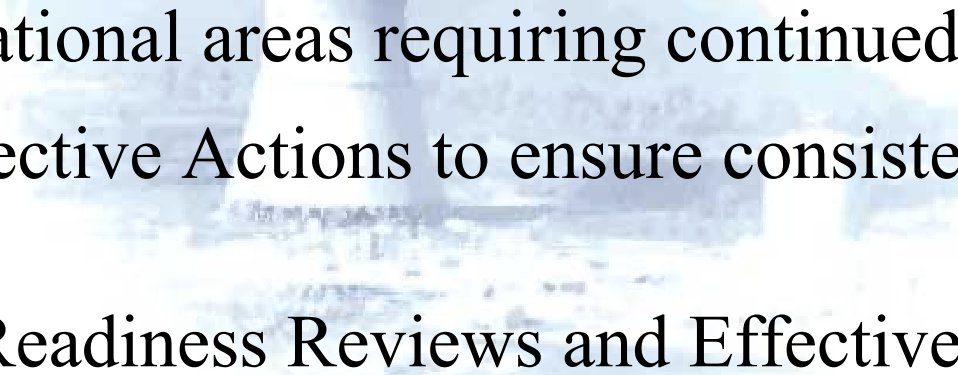
- 
- A faded, blue-tinted image of a nuclear reactor, likely the Davis-Besse Nuclear Power Station, serving as a background for the list.
- SCWE is good at Davis-Besse
  - SCWE continues to show improvement at Davis-Besse
  - We will continue to improve our performance

# Operational Performance



**Mark Bezilla**  
**Vice President - DBNPS**

# Desired Outcome is to Communicate Performance Assessment of Operations

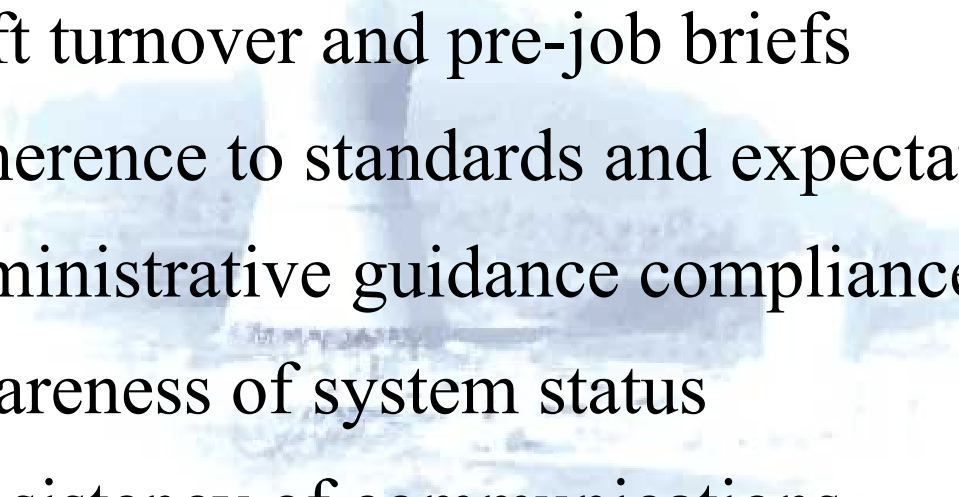
- 
- A faded, blue-tinted image of a nuclear reactor, showing the containment dome and surrounding structures, serving as a background for the list.
- Discuss operational areas requiring continued improvement
  - Provide Corrective Actions to ensure consistent operator performance
  - Discuss our Readiness Reviews and Effectiveness Assessments of Operational activities

# Implementation of Management Tools



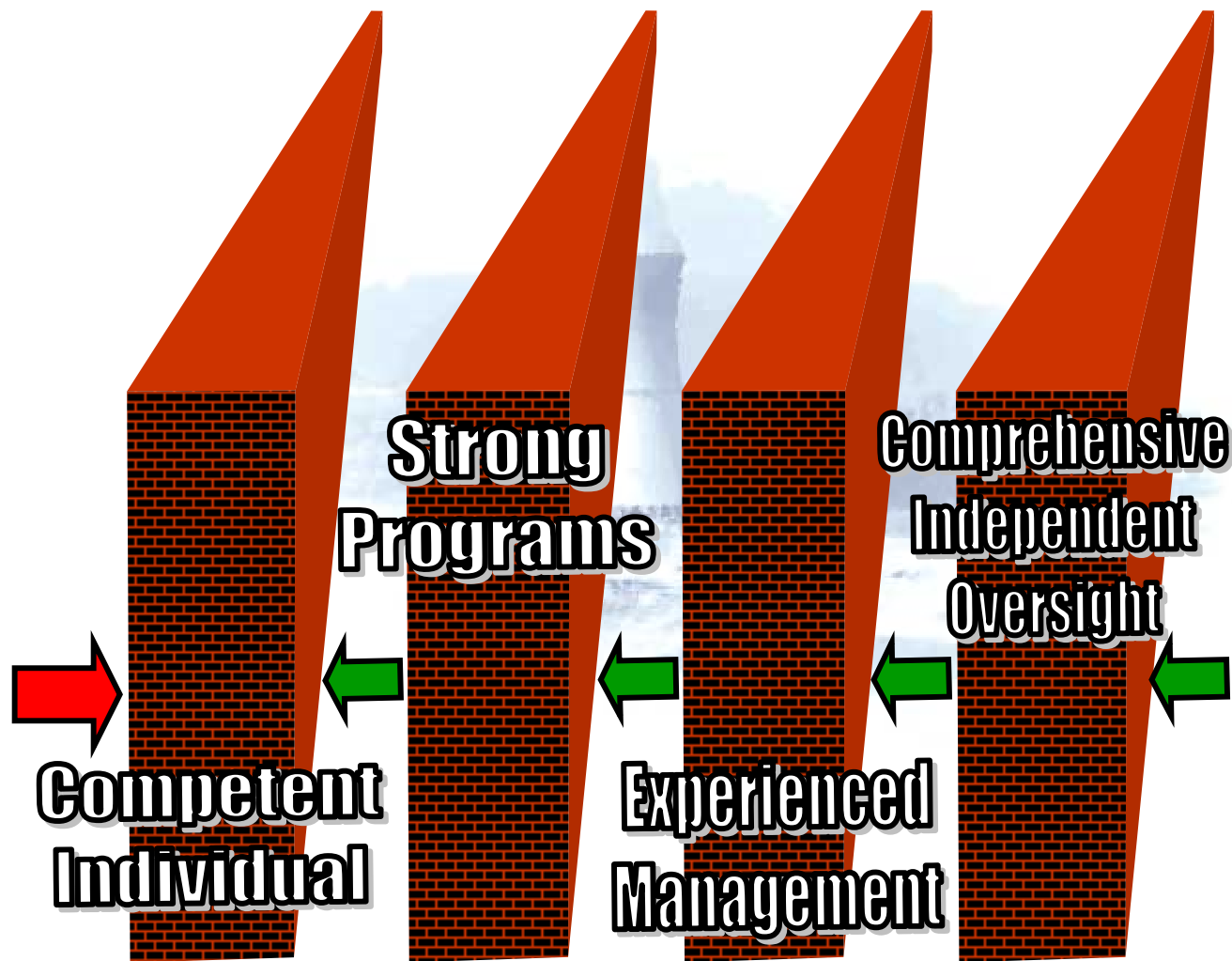
**Barry Allen**  
**Plant Manager**

# Implementation of Management Tools Needed Improvement

- 
- A faded, blue-tinted image of a nuclear reactor core, showing the complex structure of fuel rods and support structures.
- Shift turnover and pre-job briefs
  - Adherence to standards and expectations
  - Administrative guidance compliance
  - Awareness of system status
  - Consistency of communications

# **FirstEnergy®** Consistent Implementation of Management Tools Prevents Challenges

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## **FENOC Vision:**

***'People with a strong safety focus delivering top fleet operating performance'***

# Implementation of Management Tools

- Assessment

- Site team formed
- Used Barrier Analysis, TAP Root, & HPES
- Determined standards in place meet industry standards

- Problem

- Operations department is not consistently implementing department expectations and standards

- Causes

- Perception of some Operators that operations needed to execute their tasks in the time allotted versus taking the time needed to thoroughly prepare prior to execution
- Perception of some Operators that while administrative procedure statements are requirements, business practices statements were not



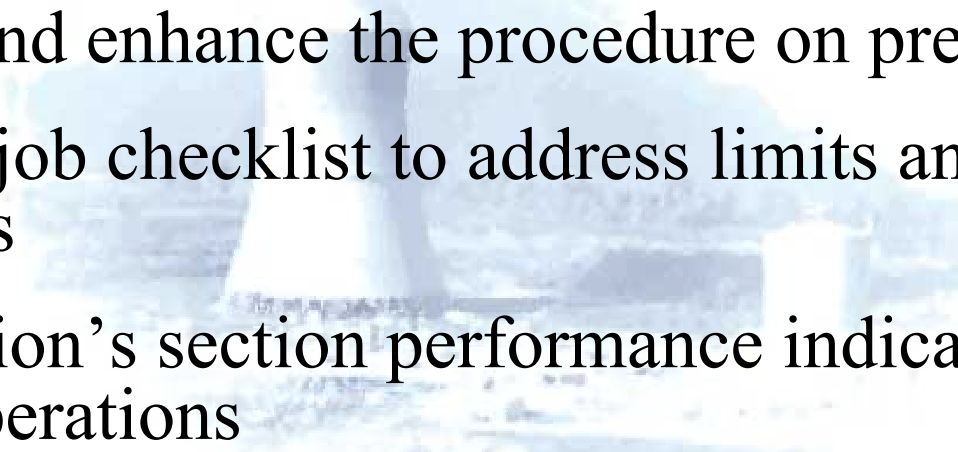
## **Actions Taken to Consistently Implement Management Tools**

- Operations resources loaded and leveled within schedule
- Operations activities included within the schedule
- Pre-job briefs for significant operational activities included within the schedule
- Pre-job briefs for heatup activities have been validated
- Reaffirmed roles of Operations Support Center supervisor and his team
- Improved communication between Operations management and shift management
- Reinforced management expectations for preparation
- Identified individual ownership for Operation's activities


## **Actions Taken to Consistently Implement Management Tools**

- Written review criteria anchored for preparation
- Management oversight for significant operational activities
- Piloting a real time system readiness assessment
- Instituted peer challenges (SLT) for significant operating activities
- Refresher training completed on conduct of operations
- Focused observation on areas needing improvement
- Daily phone call with FENOC executive leadership
- Plant Engineering qualifications have been addressed
- Measuring & Test Equipment issues have been addressed

# Actions to be Taken to Consistently Implement Management Tools

- 
- A faded, light blue background image of a nuclear power plant, showing the containment domes and associated structures.
- Benchmark and enhance the procedure on pre-job briefs
  - Enhance pre-job checklist to address limits and precautions and interlocks
  - Align Operation's section performance indicators with conduct of operations

# Ongoing Readiness Reviews and Effectiveness Assessments to Ensure Consistent Implementation of Management Tools



**Mark Bezilla**  
**Vice President - DBNPS**

# Ongoing Readiness Reviews and Effectiveness Assessments to Ensure Consistent Implementation of Management Tools

- Mode 4/3 Readiness Review (completed)
- Post-RRATI effectiveness assessment, includes external review of our assessed conclusions (in progress)
- Post heat-up effectiveness assessment including external review of our assessment conclusion
- Executive leadership team operations readiness review
- Mode 2/1 restart readiness reviews

# Ongoing Readiness Reviews and Effectiveness Assessments to Ensure Consistent Implementation of Management Tools

- Post-start-up/prior to generator synchronization effectiveness assessment and readiness review
- Post-generator synchronization/second feedwater pump inservice effectiveness assessment and readiness review
- Integrated restart test plan critique approximately two weeks after reaching 100% power
- An effectiveness review/personnel assessment approximately four weeks after reaching 100% power

# Conclusions

- 
- A faded, light blue background image of a nuclear reactor, showing the containment dome and surrounding structures.
- Actions have been taken to ensure that the management tools are consistently implemented when performing operational activities

# Closing Comments



**Lew Myers**  
**Chief Operating Officer - FENOC**