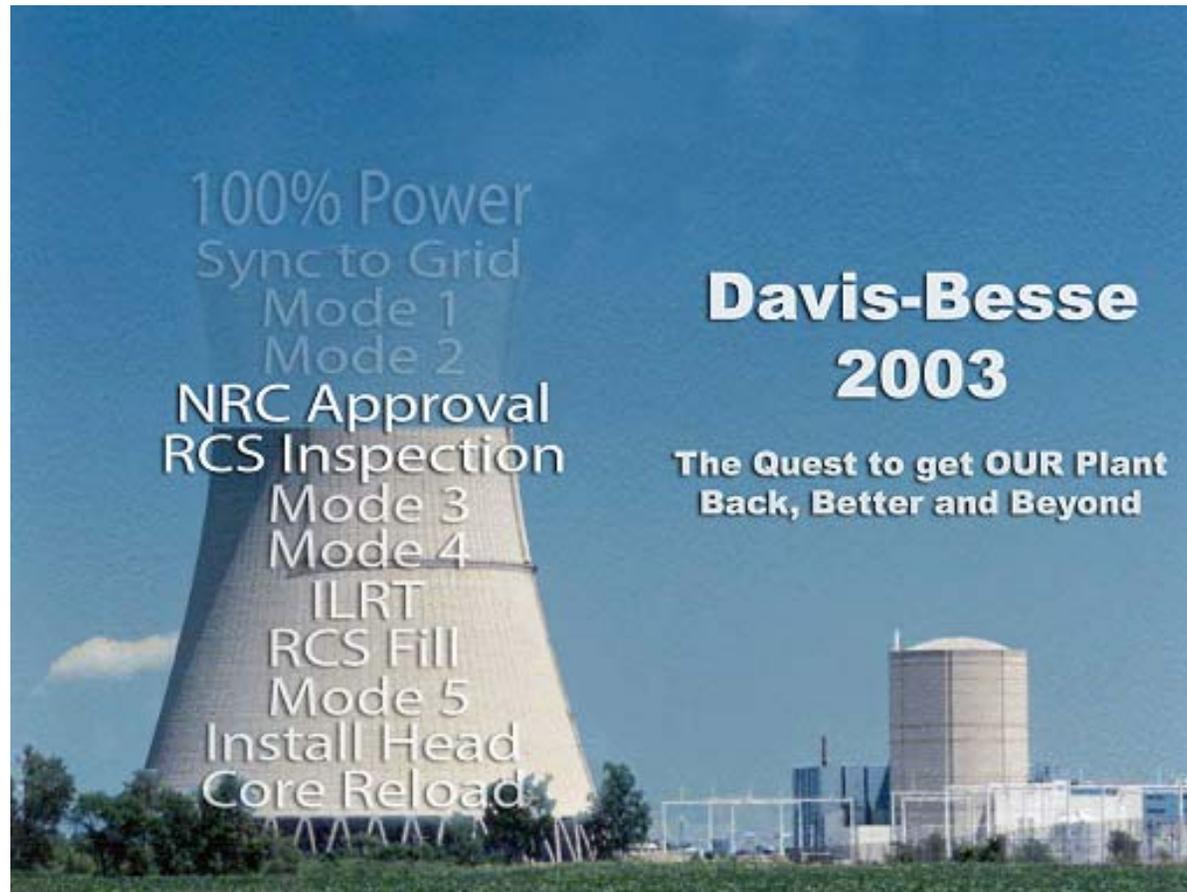


# *Davis-Besse Nuclear Power Station*



## **Organizational Effectiveness**



# Opening Comments

**Gary Leidich**

**President and Chief Nuclear Officer - FENOC**

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# Agenda

- Opening Remarks.....Gary Leidich
  - Safety Culture: Definition/Model/Process/Results/Actions Taken/Effectiveness To Date.....Lew Myers
  - Oversight Perspectives on Safety Culture Effectiveness.....Fred Von Ahn
  - Remaining Organizational Actions.....Mark Bezilla
  - Long-Term Organizational Effectiveness Vision...Gary Leidich
  - Long Term-Improvement Plan.....Randy Fast
  - Barriers Demonstrating FENOC's Strong Safety Focus..... Lew Myers
- Closing Remarks.....Lew Myers/Gary Leidich

## Desired Outcomes

- Demonstrate that we have built an Organization with a proactive safety culture that is 'Built to Last'
- Provide an understanding of the key elements of our safety culture
  - Safety Culture Model
  - Process/Results
  - Actions taken to date
  - Effectiveness of actions
  - Long-term plans



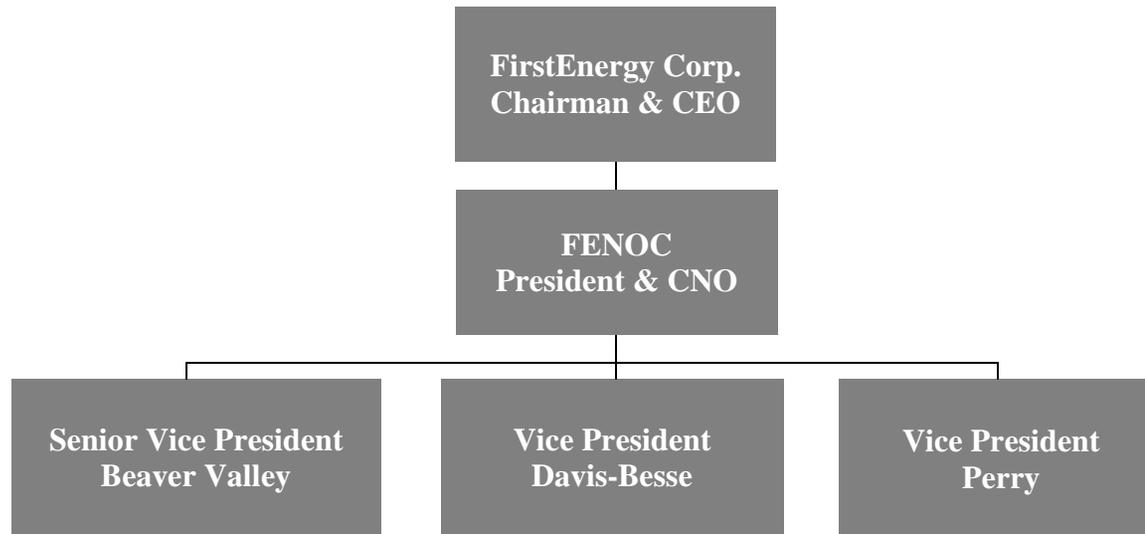
# FirstEnergy is Committed to Nuclear Safety

- Chairman and Chief Executive Officer Commitment to Nuclear Safety
- FirstEnergy Board of Directors Resolution
- FENOC Commitment to Safety Culture
  - Corporate and Policy Level Commitments
  - Management Commitments
  - Individual Commitments

## **‘Built to Last’ Commitment**

- FENOC has built an enduring organization rooted in and consistently aligned at all levels to the core values of safe and reliable operation of Davis-Besse
  - Continuous indoctrination of employees in these core values
  - Nurturing and selecting senior management based on a fit with these core values
  - Consistent alignment with these core values in goal-setting, problem-solving, and decision-making
  - Preserving these core values while driving continuous improvement
  - A strong safety focus resolve

# Previous Organization

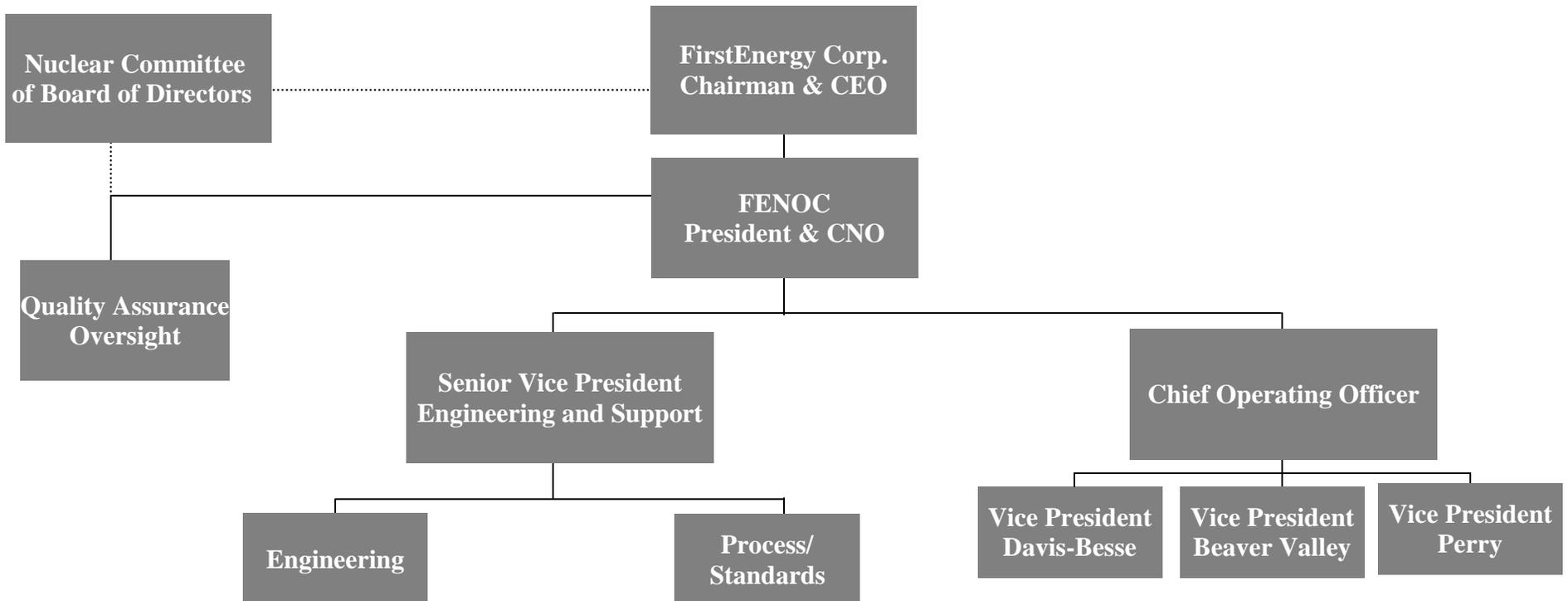


# Previous Organization

- Potential Pitfalls

- Allowed isolationism and individual plant organizations
- Differences in management processes went unchecked
- Corrective Action Program weaknesses
- Differences in cultures
- Resistance to Industry Standards
- Allowed oversight to become part of the problem

# Present Organization



# Present Organization

- Advantages

- Common Processes/ Industry Best Practices
- Strong Corporate Governance
- Independent Quality Oversight
- Chief Operating Officer is responsible for consistent implementation
- Senior Vice President Engineering is responsible for development

# Present Organization

- Organization is in place to ensure strong safety focus and facilitate top fleet performance

# Safety Culture

↓ Definition

↓ Model

↓ Process

↓ Results

↓ Actions Taken to Date

↓ Effectiveness To Date

## Lew Myers

Chief Operating Officer - FENOC

# Definitions

## Safety Culture

That assembly of characteristics and attitudes in organizations and individuals which establishes an overriding priority towards nuclear safety activities and ensures that issues receive the attention warranted by their significance

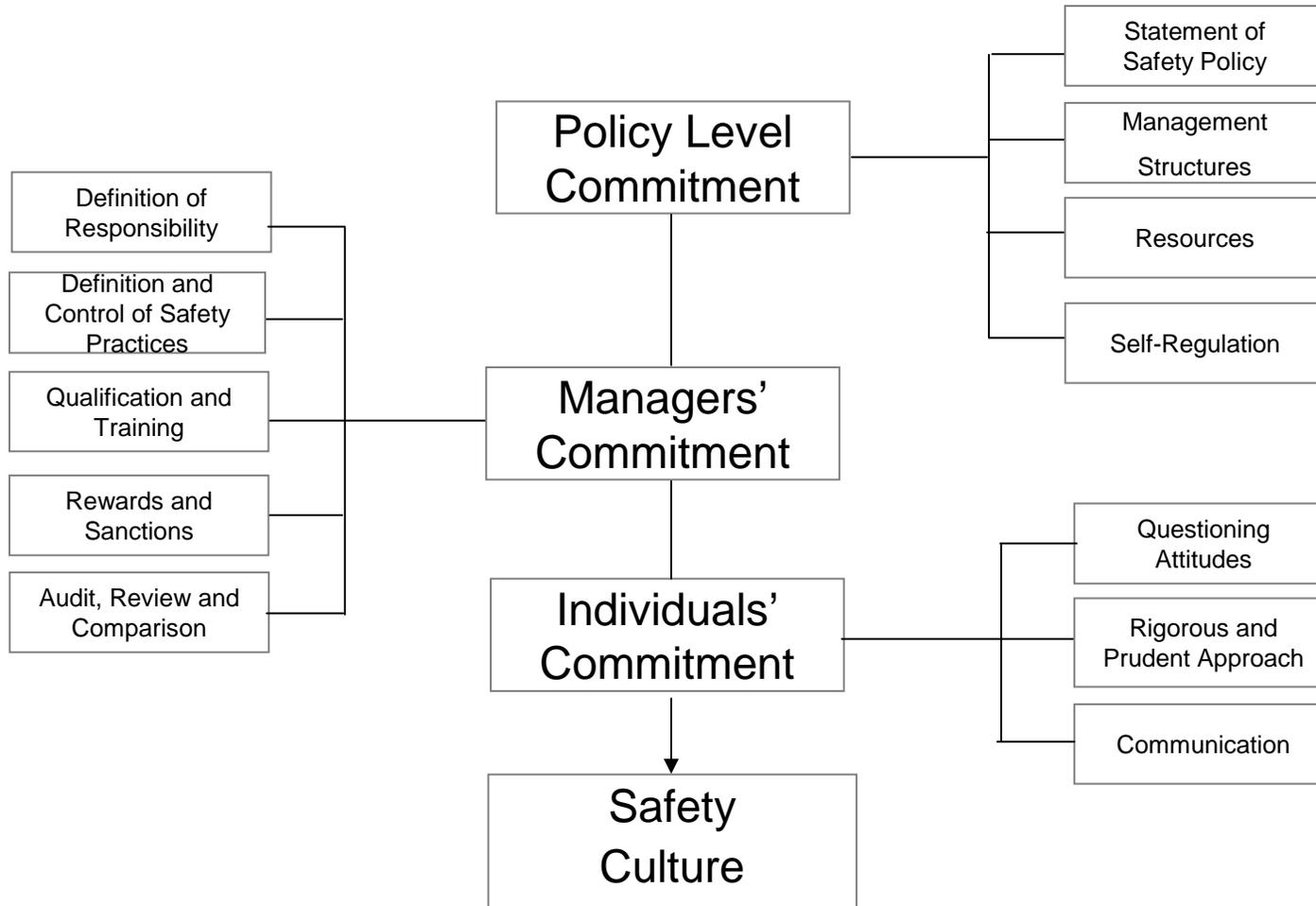
## Safety Conscious Work Environment

An environment in which personnel are encouraged to identify problems, are confident that problems will be effectively evaluated and corrected, and are protected from any form of retaliation

# Safety Culture Model

- Original Safety Culture Model Sources
  - International Atomic Energy Agency, INSAG-4, “Safety Culture”
  - INSAG-13, “Management of Operational Safety in Nuclear Power Plants”
  - Dr. S.B. Haber - Performance, Safety, and Health Associates

# Safety Culture - IAEA Model

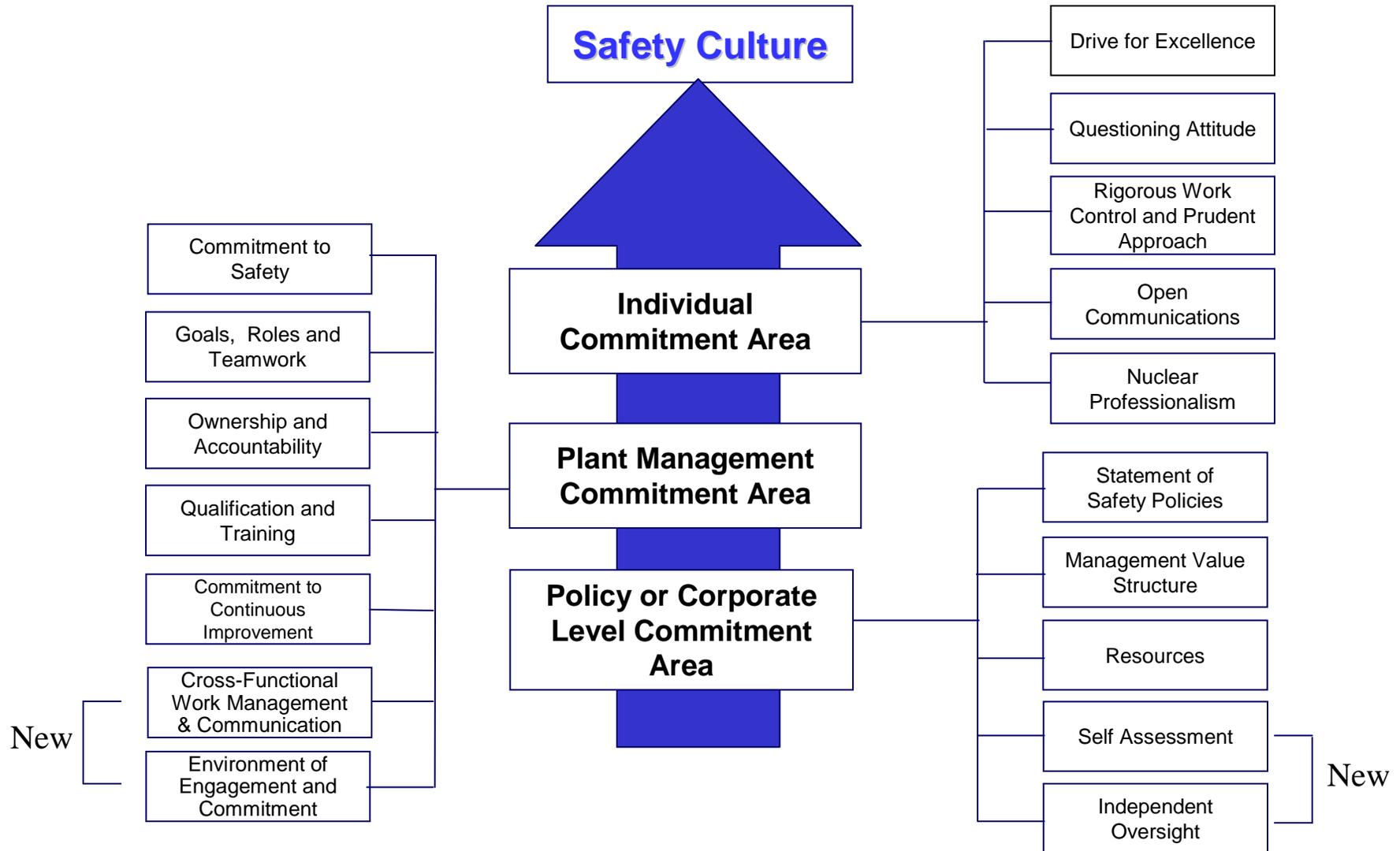


Source: International Atomic Energy Agency - INSAG-4, Safety Culture

# Safety Culture - Model Development

	Attn to Safety	Coor of Work	Decision Mkg	External Comm	Formalization	Goal Set/Prior	Interdept Comm	Intradep Comm	Org'l Culture	Org'l Learning	Org'l Knowl.	Perf. Eval.	Perf. Quality	Person'l Select	Prob. Identif.	Res. Allocatn	Roles & Resp.	Time Urgency	Training	Constr. Values	Drive-Perfectn	Org'l Commit.	Job Satisfactn	Min. Avoidnc	OpnEfecCom	Questg Attit.	Wrk Grp Cohes	
<b>CRITERIA</b>																												
<b>Policy/Corp Commitment Area</b>																												
1.a. Policies/Core Value	X				X																							
1.b. Mgt values in Bus Plan	X				X	X																						
1.c. Resources are available													X			X												
1.d. Self-Assessment Tool												X																
1.e. Indep. Oversight Tool	X											X																
<b>Plant Mgt Commitment Area</b>																												
2.a. Visible Commit to Safety	X		X		X							X			X	X			X							X		
2.b. Goals/Roles/Intrad.Tmwk	X	X			X	X		X				X				X	X							X	X			X
2.c. Ownership/Accountability	X				X			X	X			X			X	X			X					X		X		
2.d. Trg. & Quals valued												X	X					X	X									
2.e. Commitment to Cont. Impr.	X				X			X	X			X	X		X			X	X									
2.f Cross-func.work mgt/comm		X	X				X		X									X										
2.g. Envir. of Engagemt/Commit								X				X	X							X		X	X	X	X			
<b>Individual Commitment Area</b>																												
3.a. Drive for Excellence	X								X			X	X		X			X			X	X						
3.b. Questioning Attitude	X											X					X							X		X		
3.c. Rigorous WC/prudent approach	X	X			X							X	X					X			X							
3.d. Open Comm-voice concerns	X				X		X	X				X												X	X	X		
3.e. Nuclear Professionalism	X				X			X	X			X			X			X			X	X		X	X	X		

# Safety Culture - FENOC Model



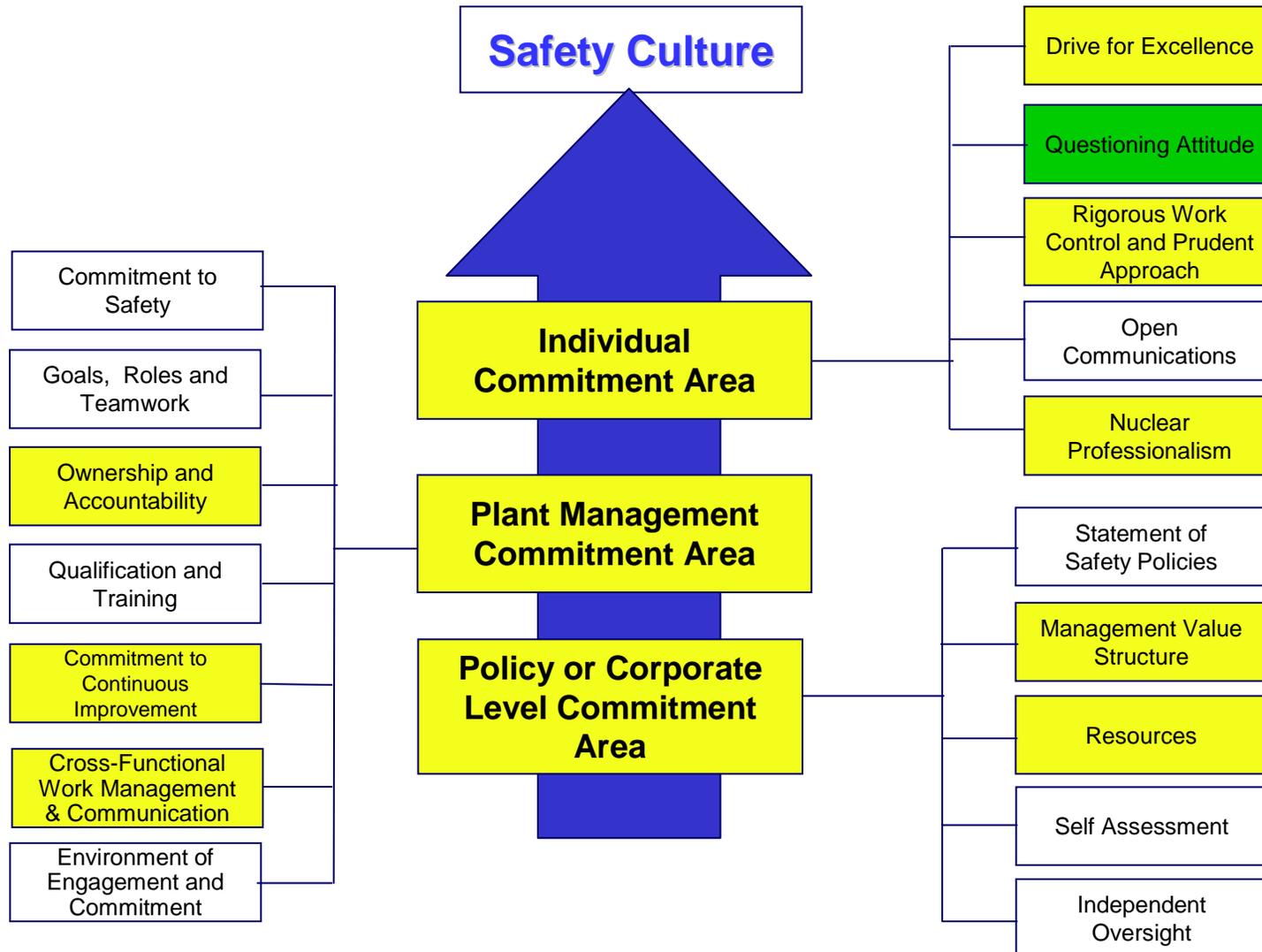
## Process

- Improvement of Safety Culture
  - Communicated the importance of Nuclear Safety to employees
  - Created Safety Culture and Safety Conscious Work Environment Models based on industry experience to date and information from the International Atomic Energy Agency
  - Performance, Safety, and Health Associates, Inc. performed independent safety culture audit in February, 2003
  - Conducted self-assessments and internal surveys
  - Developed Business Practices on safety culture

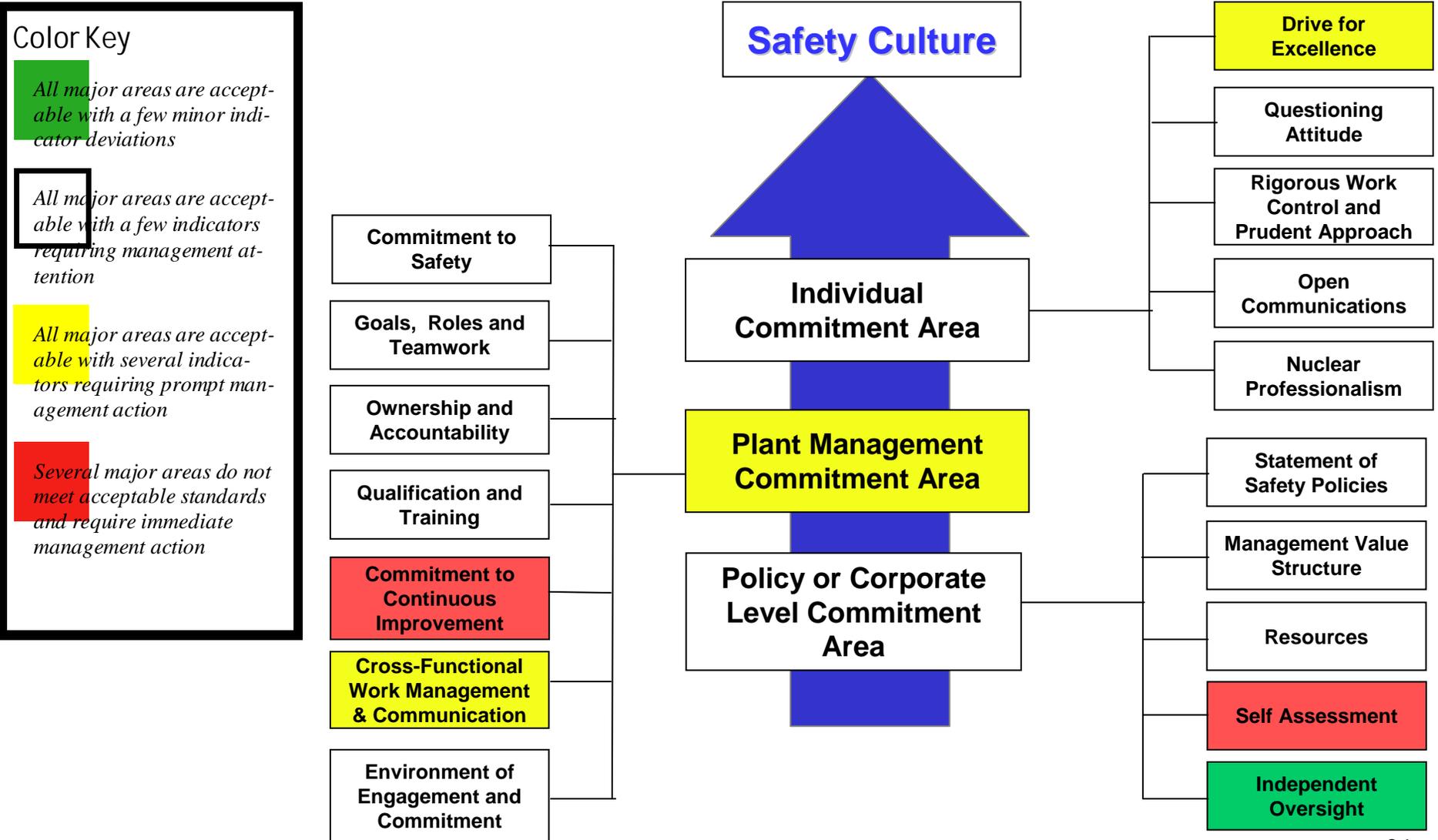
## Results

- Performance, Safety, and Health Associates, Inc. Safety Culture Assessment
  - Weaknesses in management meetings, employee alignment, communication of safety goals, accountability and ownership for safety, and shift turnover focus
- Mode 5 Safety Culture Assessment
  - Weaknesses in Individual Commitment Area, Plant Management Commitment Area, and Policy or Corporate Level Commitment Area
- Mode 4/3 Safety Culture Assessment
  - Overall improvements in all three commitment areas

# Mode 5 Safety Culture Assessment



# Mode 4/3 Safety Culture Assessment



## **Actions Taken to Date**

### **Policy or Corporate Level Commitment**

- Safety communication from FirstEnergy Board of Directors
- Board of Directors site visits
- Nuclear Committee of Board of Directors on-site meetings
- FirstEnergy Chief Executive Officer All-Hands meetings
- FirstEnergy Chief Executive Officer Shift Manager meetings
- FENOC Policy on Safety Culture
  - Letter issued to all employees, and then made into a policy
- New Chairman of Nuclear Committee of Board

# **Actions Taken to Date**

## **Policy or Corporate Level Commitment**

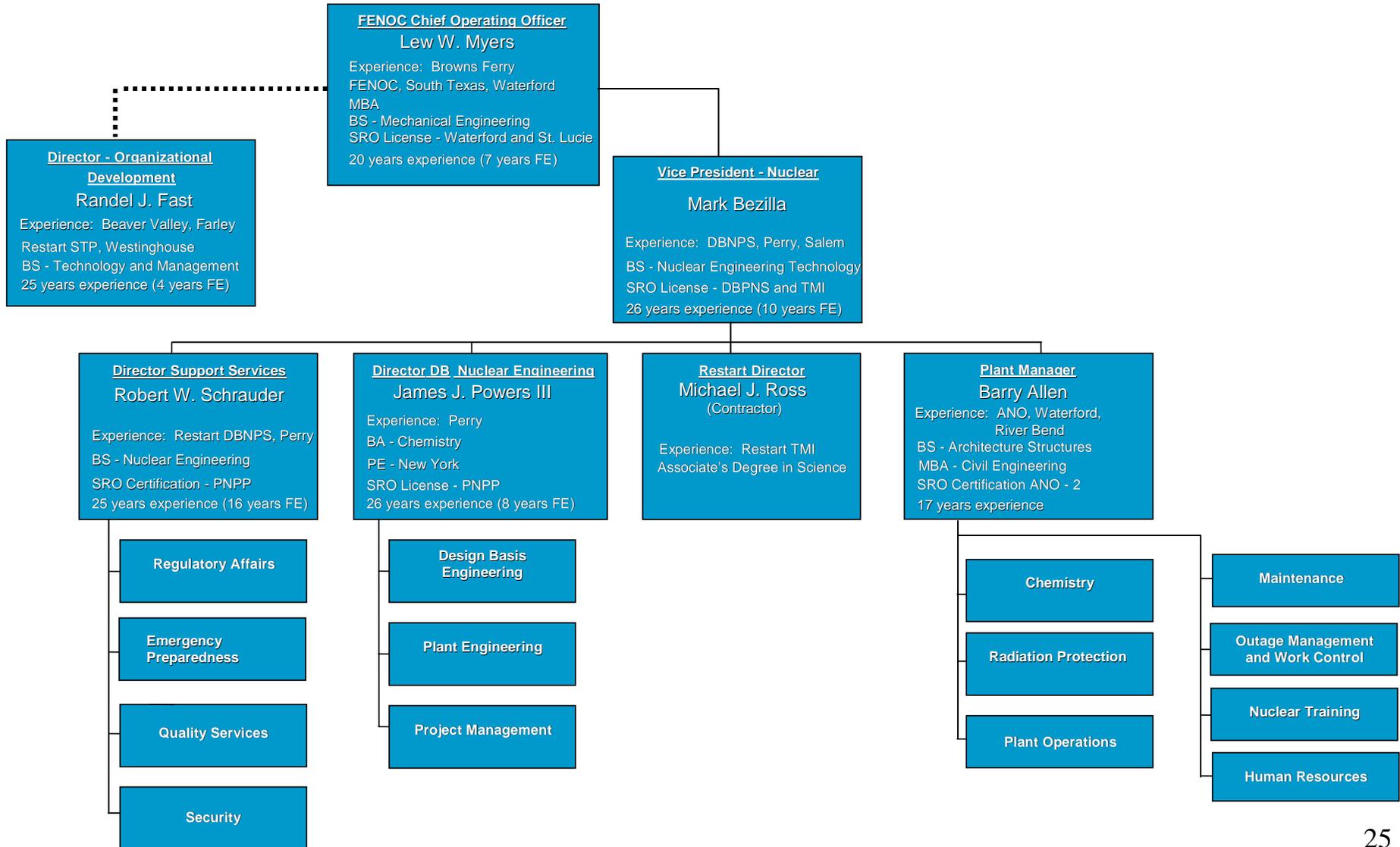
- New FENOC Executive Team
  - President
  - Chief Operating Officer
  - Senior Vice President - FENOC (Engineering)
  - Vice President - Oversight
    - Reports directly to Board of Directors
- Company Nuclear Review Board Changes
- New Vision, Strategic Objectives, and Metrics
- Nuclear Fleet sharing of resources and experience
- FirstEnergy Talent Management Program
  - Ensures talent for the future

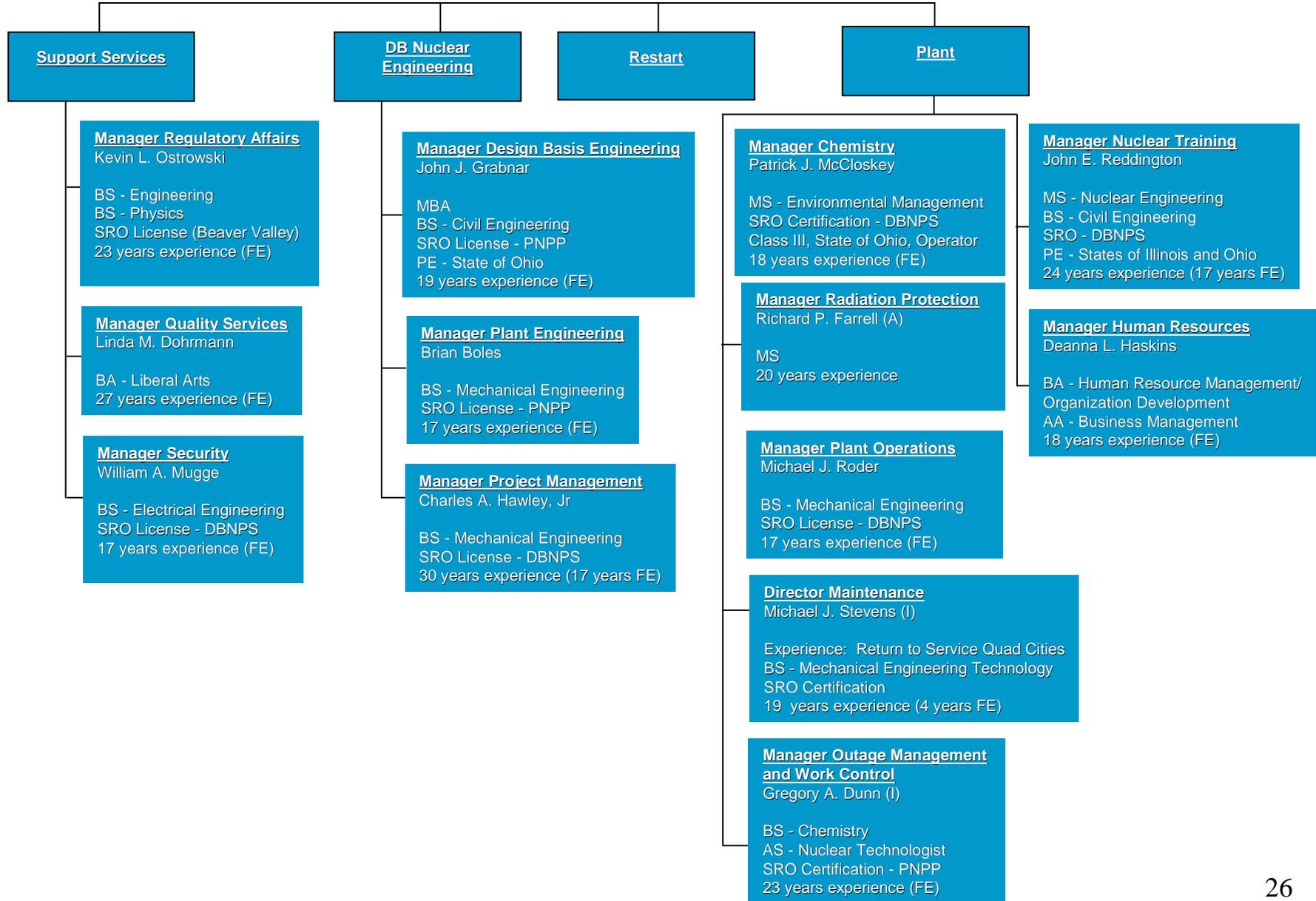
# Actions Taken to Date

## Management Level Commitment

- Proven Davis-Besse/FENOC Leadership Team
  - Addition of new Director of Organizational Development
- New Davis-Besse Management Team
- Evaluated managers for proper competencies
  - External RHR assessment

# DAVIS-BESSE SITE ORGANIZATION





## Actions Taken to Date

### Management Level Commitment

- RHR review expanded population to include all management and supervisors
- Anchored behavioral expectations into training and appraisal process
  - Development of attributes (competencies) for expected behaviors
    - Nuclear Safety
    - Nuclear Professionalism
  - Training of all supervisors and above on new Nuclear Safety competencies
  - Tied competencies to employee appraisals

# Actions Taken to Date

## Management Level Commitment

- Anchored oversight into continuing processes
  - Corrective Action Review Board (CARB)
    - Root Cause, Rigor, Quality and Approval
  - Engineering Assessment Board (EAB)
    - Technical Product Quality Review
  - Management Review Board (MRB)
    - Criteria for management review strengthened

# **Actions Taken to Date**

## **Management Level Commitment**

- Anchored safety work practices into current processes
  - Risk Management Process for ensuring proper management oversight for activities
  - Problem-Solving and Decision-Making Process
  - Program Review Process
  - Latent Issue Review Process
  - System Health Readiness Review
  - Management Observation Program
  - Operability Evaluation Process

## **Actions Taken to Date**

### **Individual Level Commitment**

- Case study training focus on Nuclear Safety
- Meetings with employees to communicate Safety Focus
  - Town Hall
  - 4-Cs (Communication, Changes, Concerns, and Compliments)
  - All-Hands
  - Site On-line Articles
  - FENOC On-Line Articles
- Management Observation Program / employee interface opportunities

## Actions Taken to Date

### Individual Level Commitment

- Supervisor and above leadership training
- Organizational standards and expectations
- Safety Conscious Work Environment Training
- Problem-solving / Decision-making Nuclear Operating Procedure rollout and communication
- Ad-hoc surveys in department meetings
- New Employee Orientation Manual

# **Actions Taken to Date**

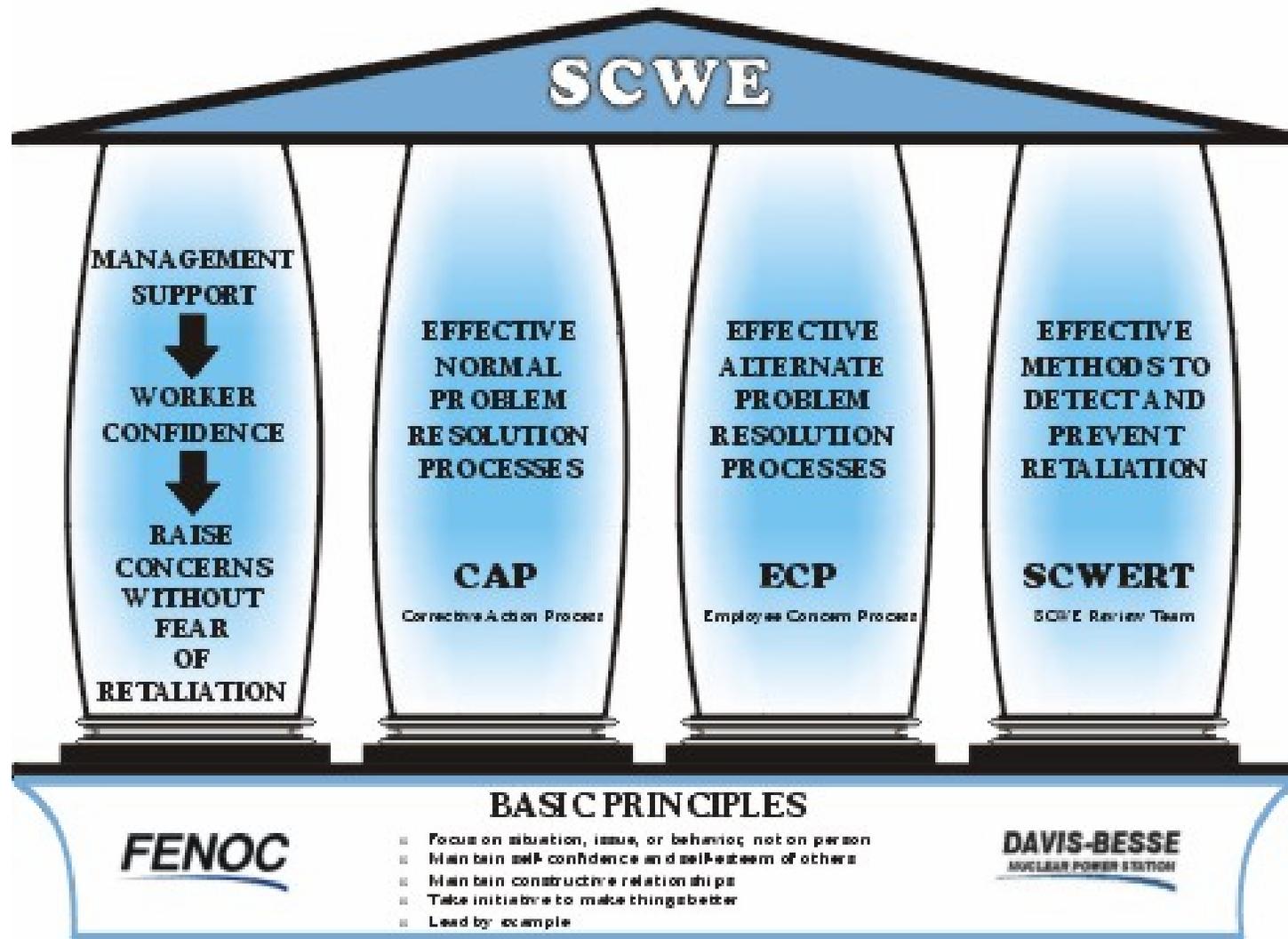
## **Safety Conscious Work Environment**

Definition of Safety Conscious Work Environment:

“An environment in which personnel are encouraged to identify problems, are confident that problems will be effectively evaluated and corrected, and are protected from any form of retaliation.”

# Actions Taken to Date

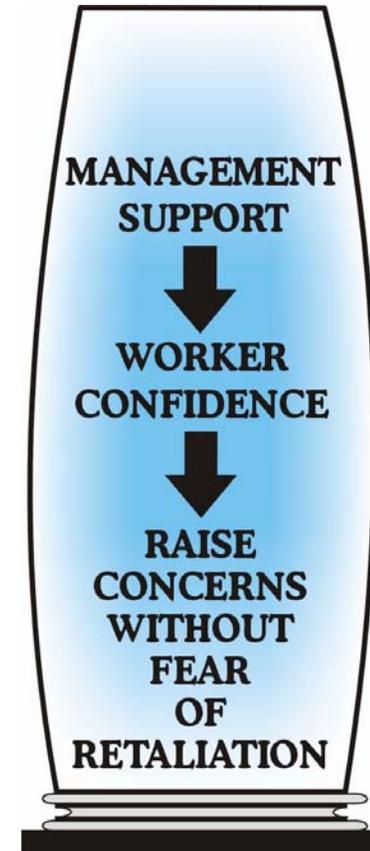
## FOUR PILLARS OF A SAFETY CONSCIOUS WORK ENVIRONMENT



# Actions Taken to Date

## Safety Conscious Work Environment

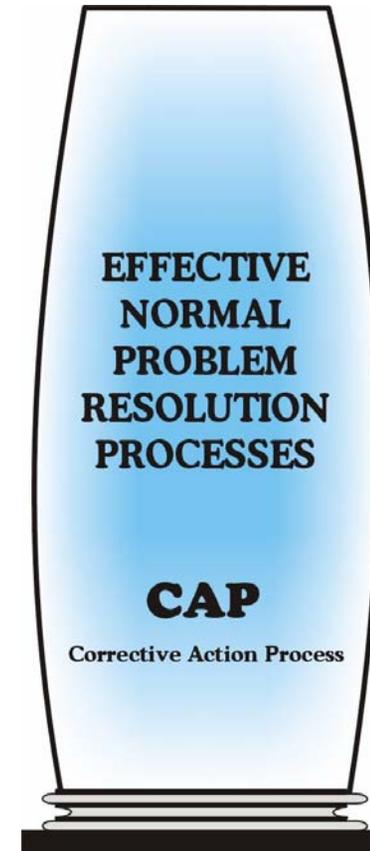
- Management Support / Worker Confidence
  - Issued FENOC Policy on SCWE
  - Trained all managers and supervisors on SCWE
  - Trained Operators on SCWE



# Actions Taken to Date

## Safety Conscious Work Environment

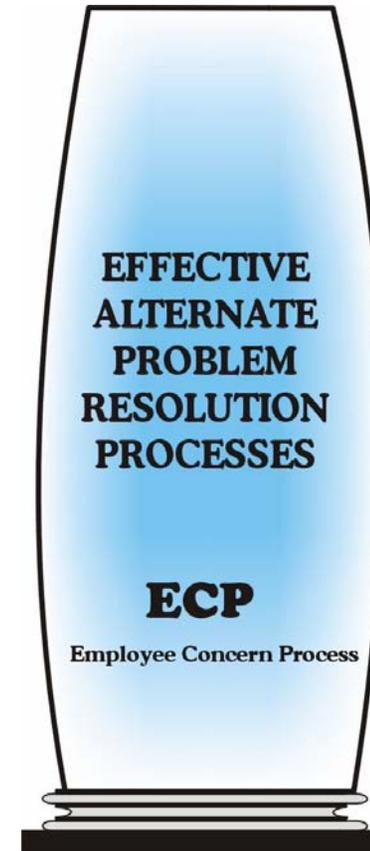
- Corrective Action Process
  - Enhanced Performance Indicators and Performance Monitoring
  - Independent validation of completed Condition Reports
  - Other Restart Improvements
    - Process changes
    - Procedure enhancement
    - Oversight changes
    - Training
    - Reinstated trending



# Actions Taken to Date

## Safety Conscious Work Environment

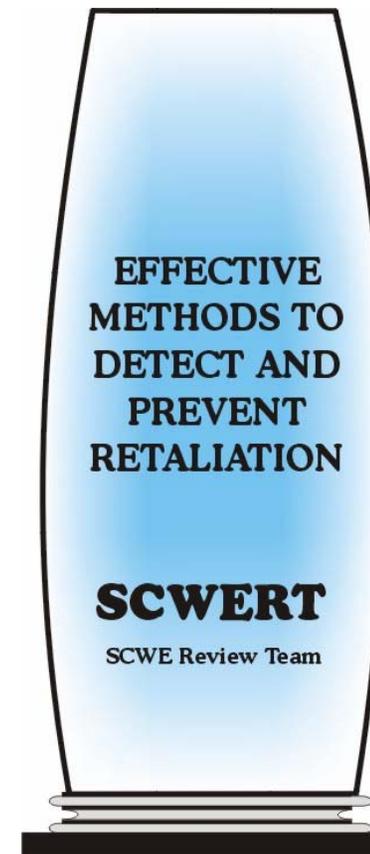
- Employee Concerns Process
  - Program became effective 12/30/2002
  - Benchmarked other nuclear plants (Millstone, Diablo Canyon, San Onofre, Nuclear Management Company)
  - Reports directly to the Vice President of Oversight
    - Independent of Site Management
  - Protection of confidentiality
  - Independent investigators available



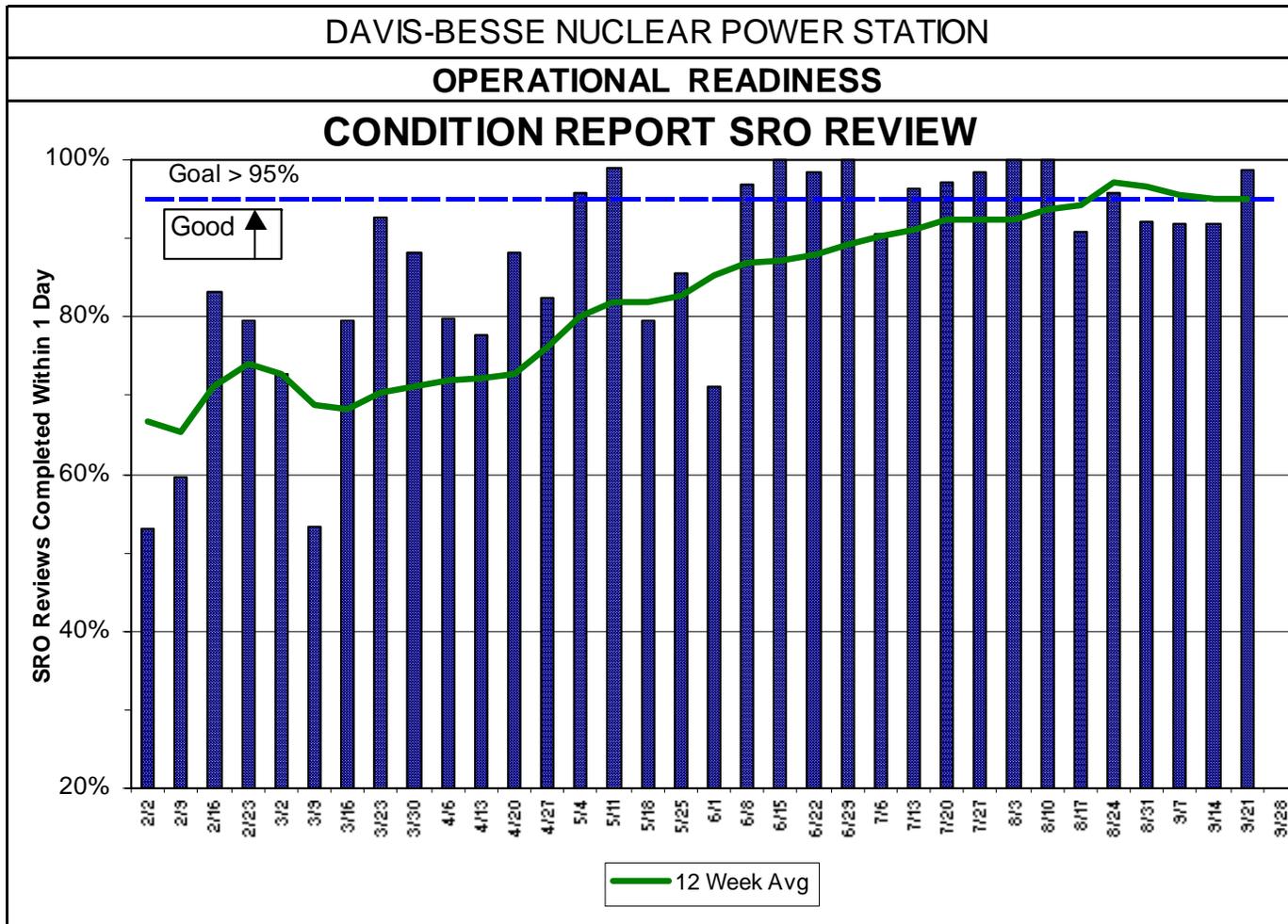
# Actions Taken to Date

## Safety Conscious Work Environment

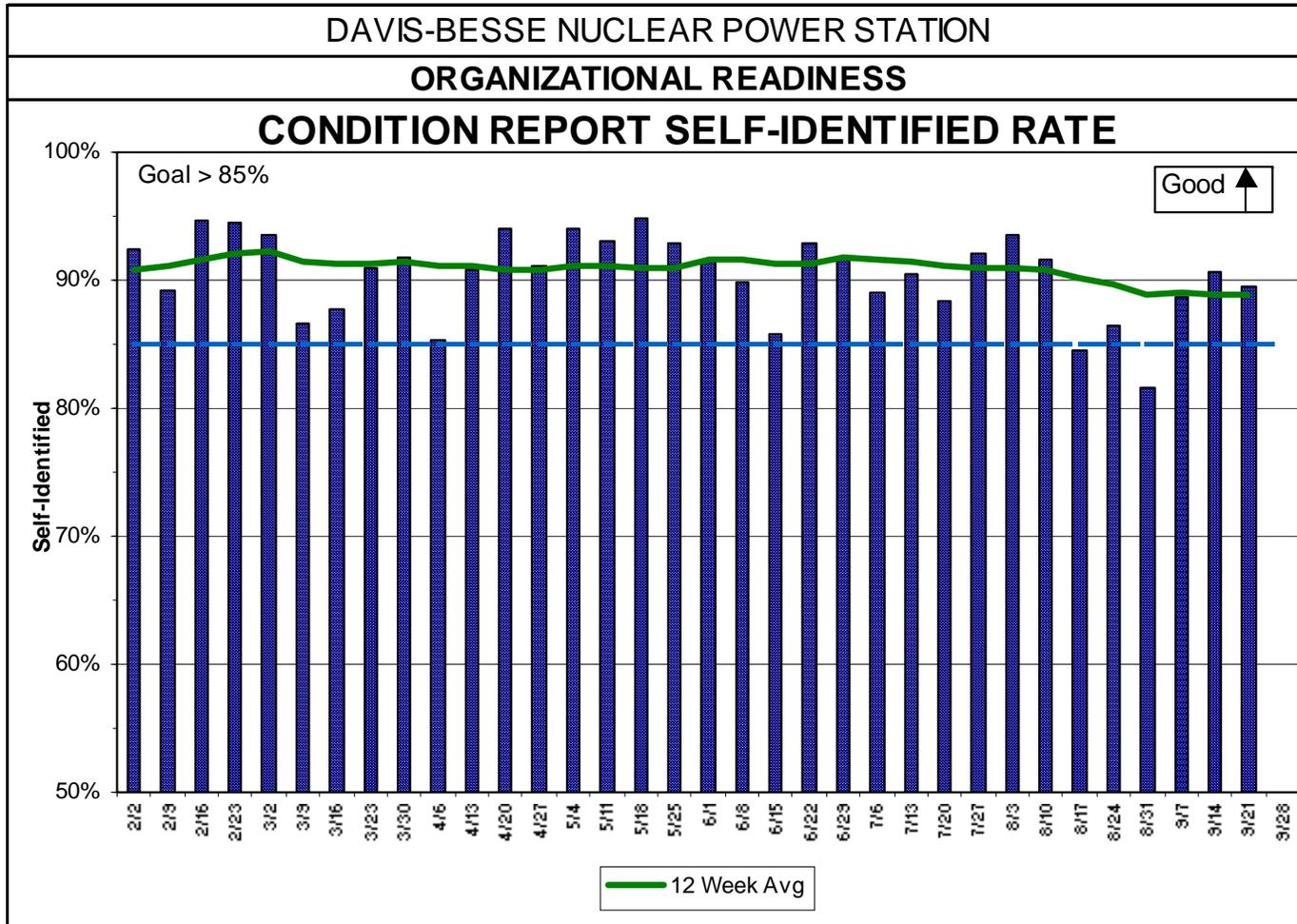
- Safety Conscious Work Environment Review Team
  - Chartered team to review proposed personnel actions
    - Team comprised of Human Resources, Legal, Employee Concerns Program
  - Team oversaw contractor reduction effort
  - Team actively looks for issues which may even give the perception of discrimination



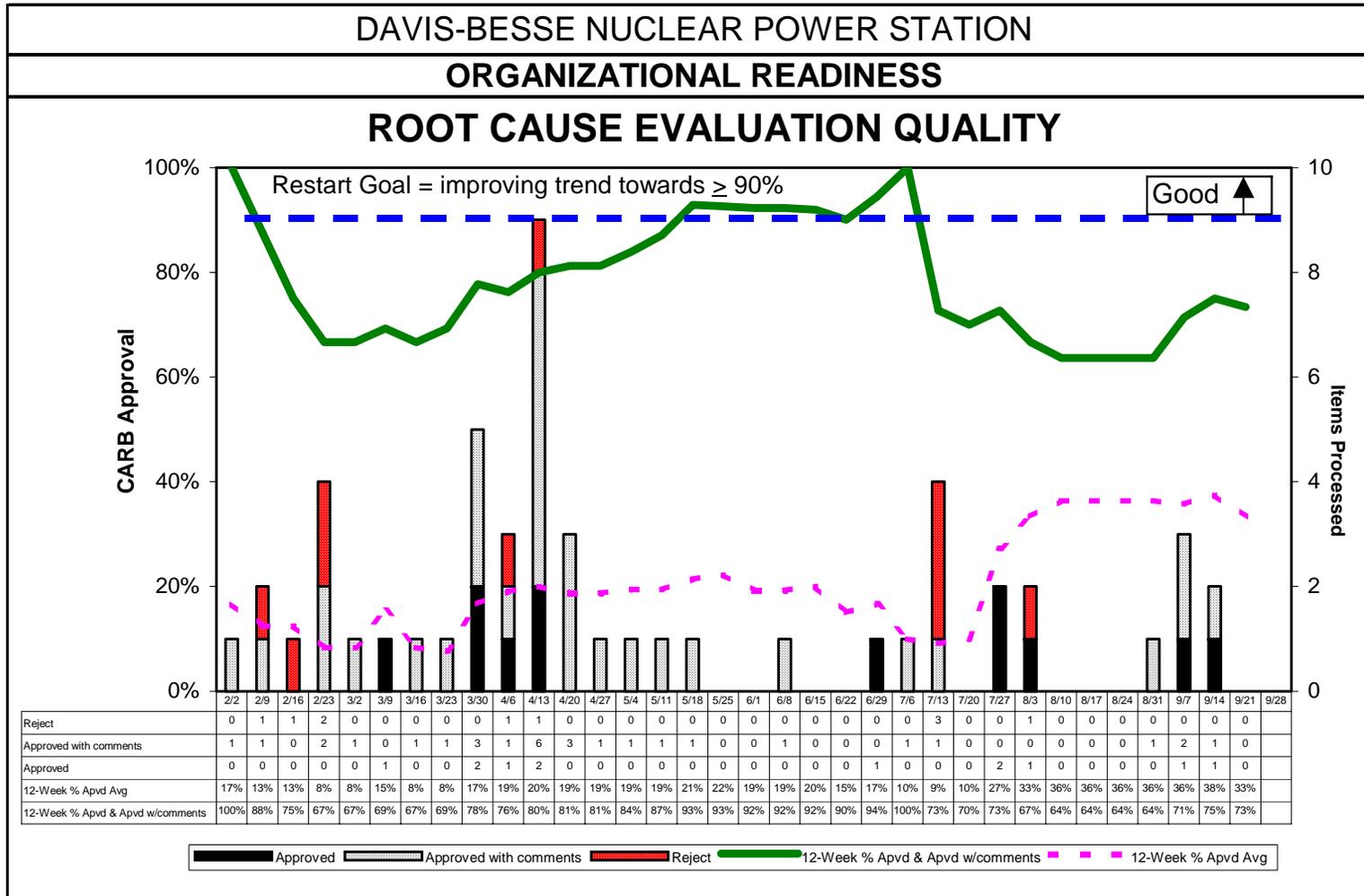
# Effectiveness to Date



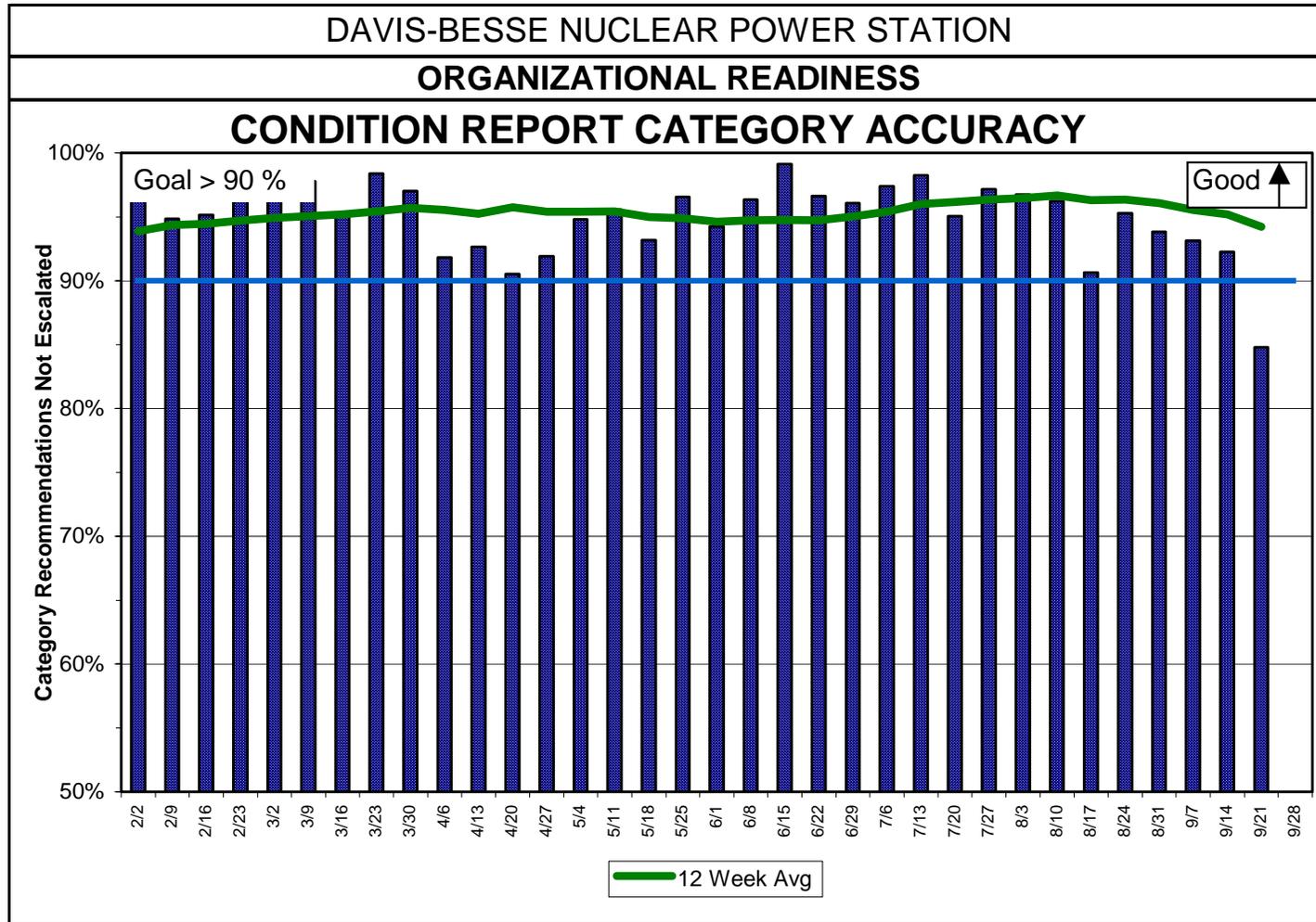
# Effectiveness to Date



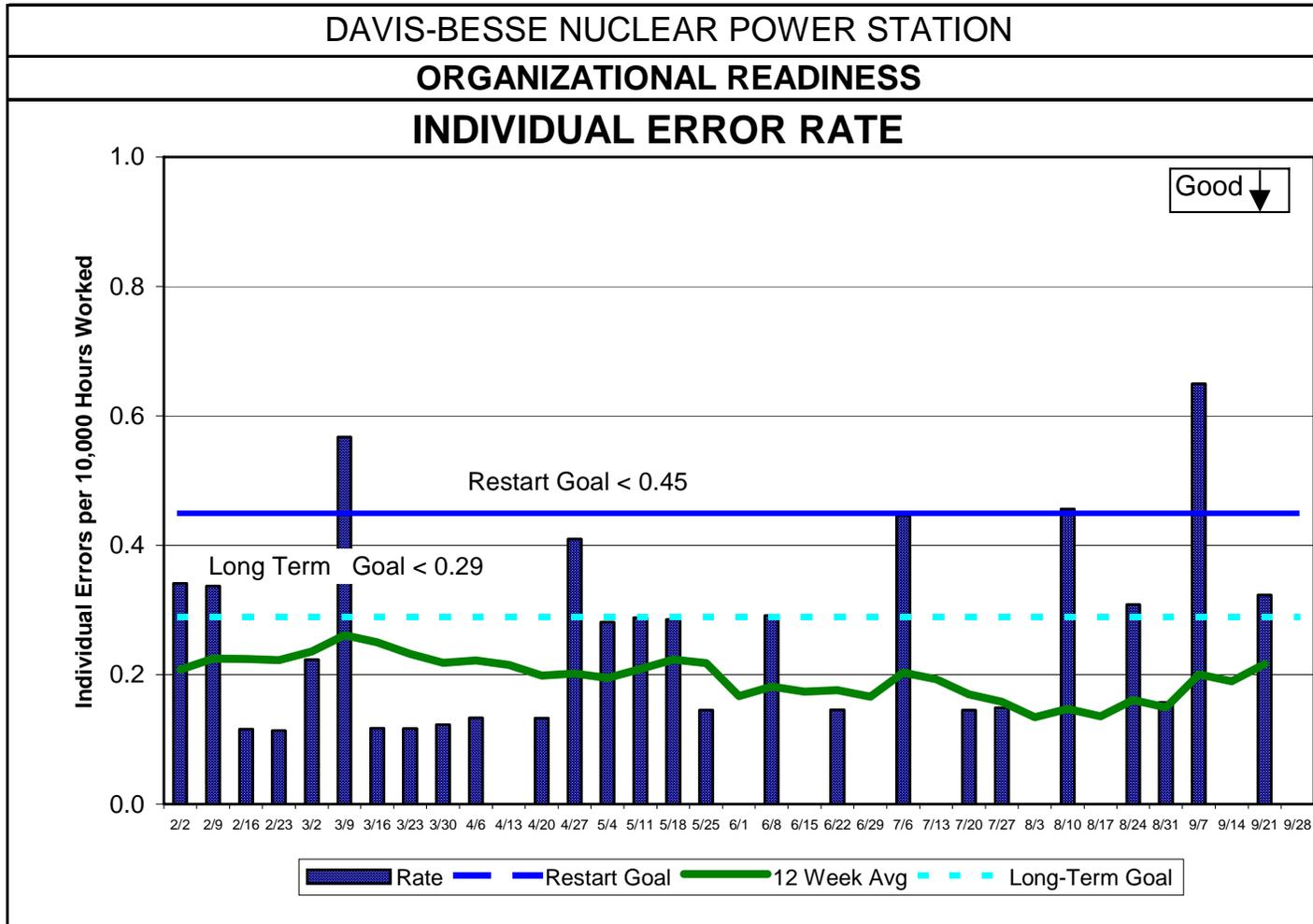
# Effectiveness to Date



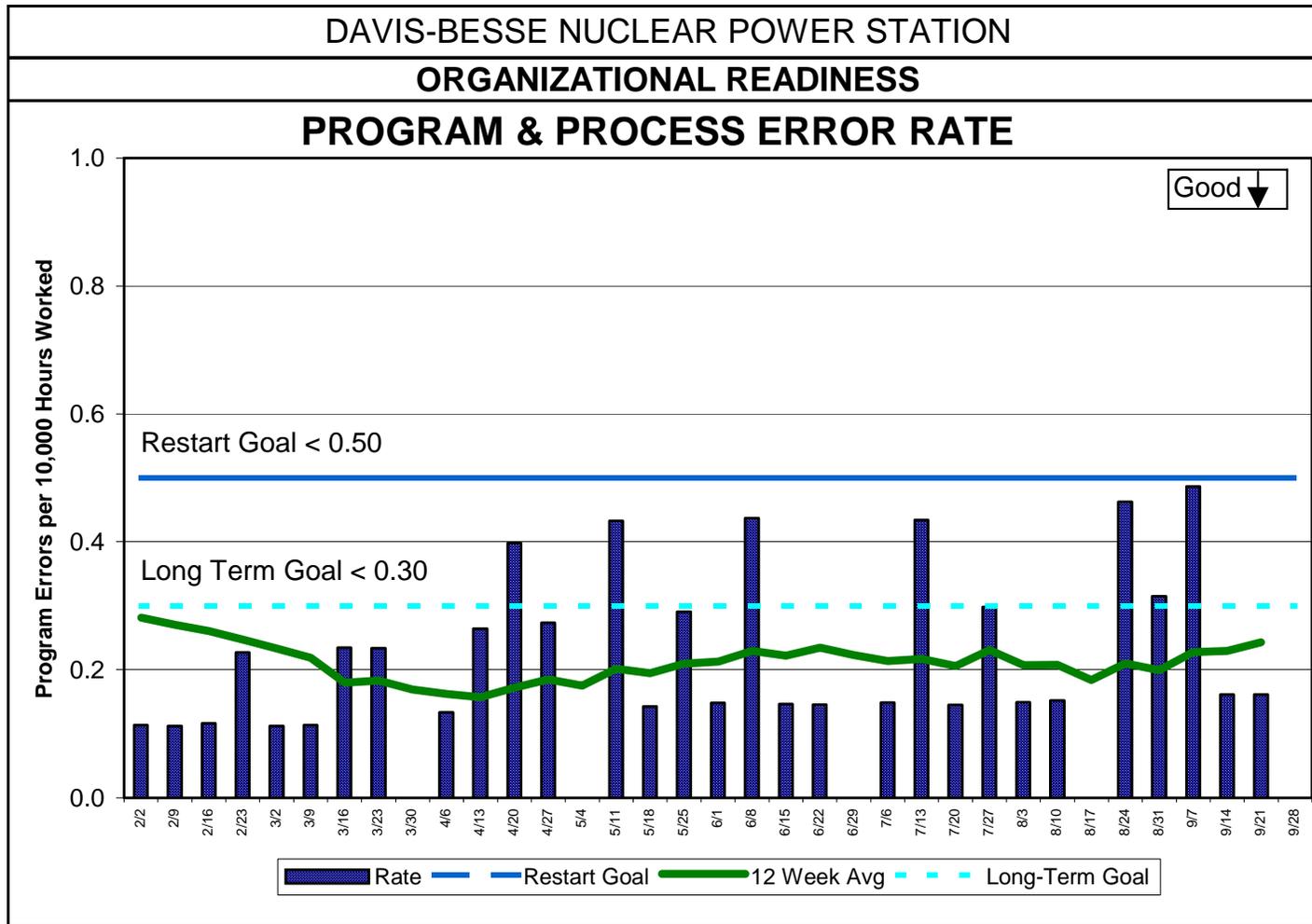
# Effectiveness to Date



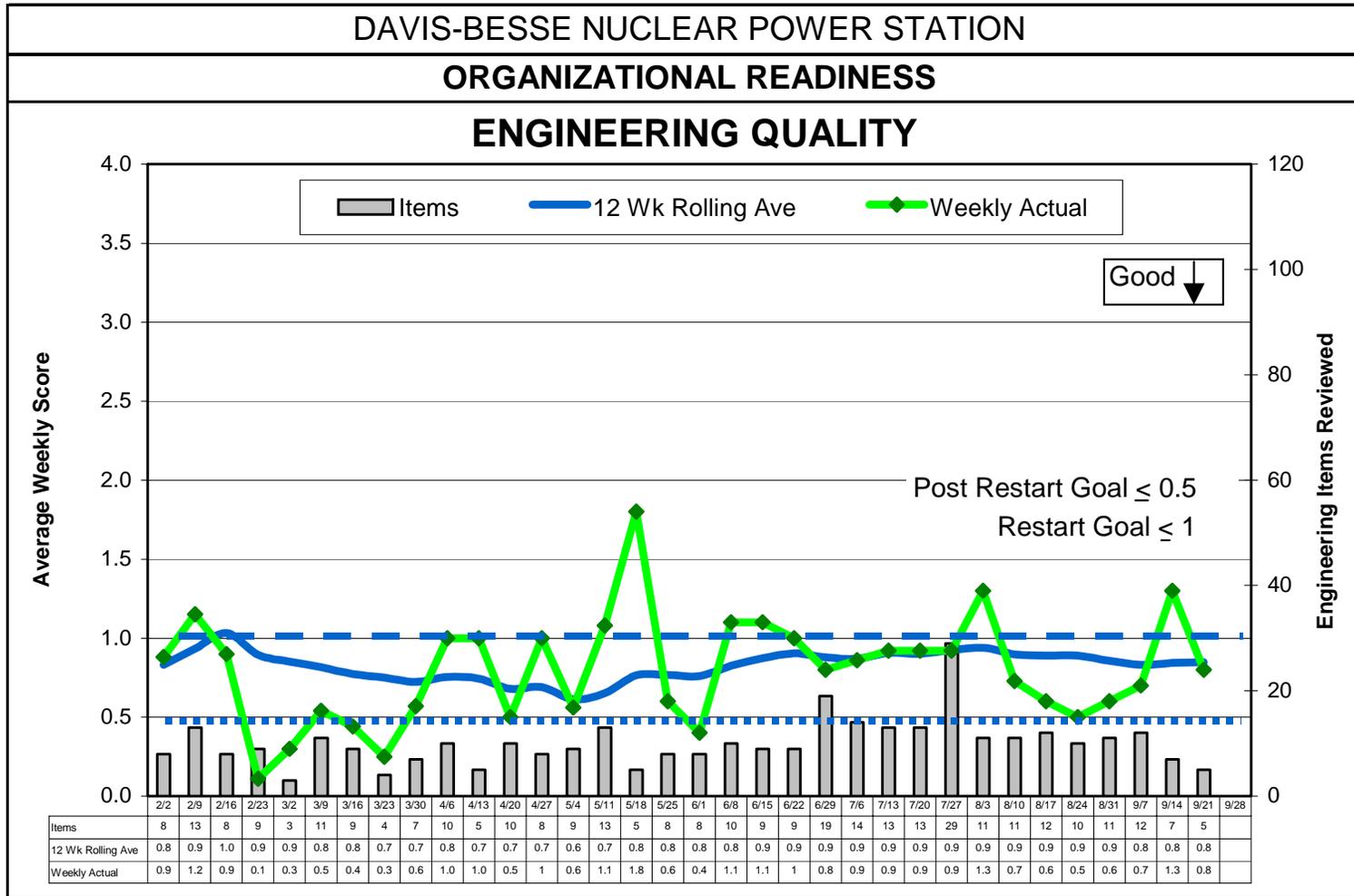
# Effectiveness to Date



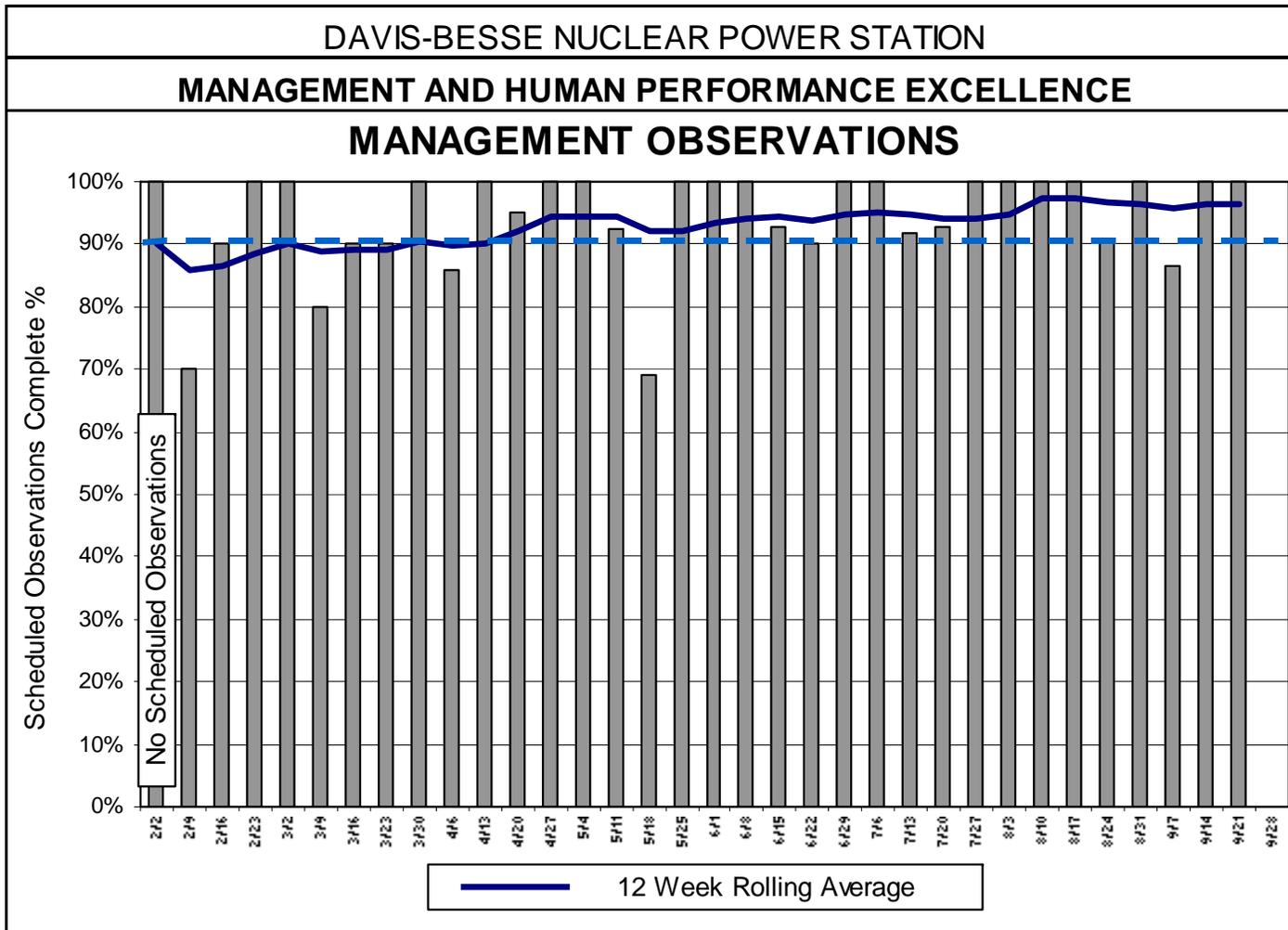
# Effectiveness to Date



# Effectiveness to Date



# Effectiveness to Date



## Results of 4-Cs Meeting

- Chief Operating Officer has met with > 700 employees in groups of ~ 15 to reinforce management support in 4-Cs meetings
  - Open forum where employees to make suggestions and voice concerns
  - Action Items are captured and classified into three areas
    - Site
    - Department
    - Individual
  - Management reviews items to consider improvements



# Oversight Perspectives on Safety Culture Effectiveness

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

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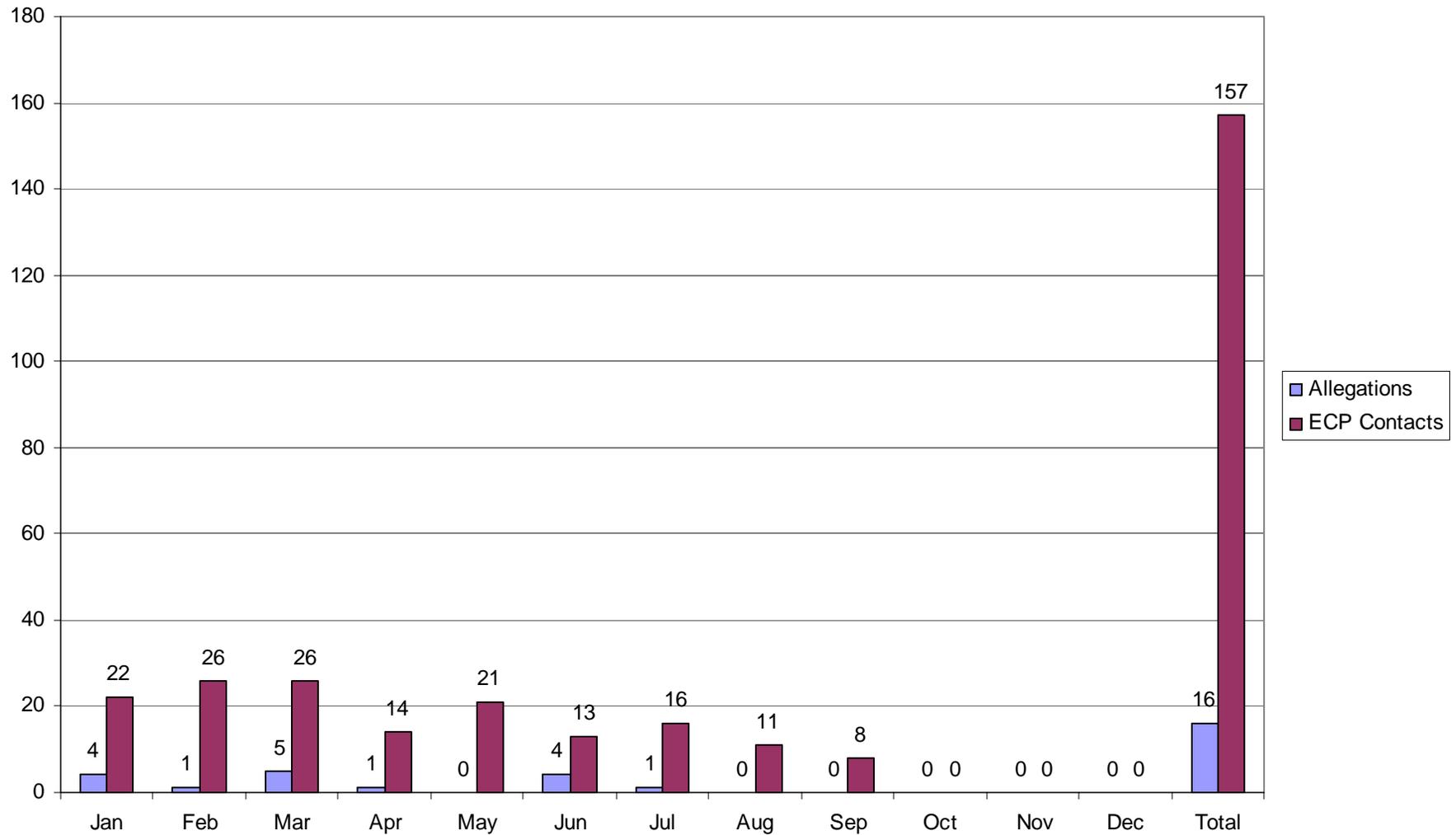
# Assessment of Effectiveness

- Station Attention to Safety Conscious Work Environment (SCWE)
- Actions Leading to Mode 4
- Mode 4/3 Execution
- Conclusions to Date

# Safety Conscious Work Environment

- Actions Completed
  - Employee Concerns Program Program Initiation
  - Safety Conscious Work Environment Surveys
  - Safety Conscious Work Environment Review Team Initiation
- Effectiveness of Actions

## 2003 NRC Allegations and ECP Contacts by Month



# March 2003 SCWE Survey Results Conclusions

- Significant improvement in results from 2002 survey
- Continuing opportunity for site-wide improvement in areas
  - Management internalization and espousal of “Basic Principles” in dealing with workers
  - Management reinforcement of safety over cost and schedule

# March 2003 SCWE Survey Results

## Conclusions

### (continued)

- Rigorous follow-through on Corrective Actions Program improvements
- Continuing opportunity for site-wide management reinforcement of SCWE with contractors
- Significant “challenge pockets” in areas of Radiation Protection/Chemistry, Maintenance, and Plant Engineering for both FENOC and contractor workers

# Response Analysis

## 2002 / 2003 Comparison

		2002 Survey			2003 Survey		
		Negative Responses			Negative Responses		
#	Question	ALL	FENOC	Contractor	ALL	FENOC	Contractor
	<b>Total Number of Workers</b>	386	280	84	1139	666	377
“Retaliation” Questions →	7 I can raise nuclear safety or quality concern without fear of retaliation	18.5%	22.1%	5.6%	7.1%	4.2%	9.9%
	25 I feel free to raise nuclear safety or quality issues on CRs without fear of reprisal	16.1%	18.4%	8.5%	5.6%	3.0%	8.5%
	30 I can use ECP without fear of retaliation	14.6%	18.1%	4.0%	5.1%	3.2%	7.0%
“HIRD” Questions →	35 I have been subjected to HIRD within the last 6 months	7.1%	8.9%	1.2%	8.1%	5.1%	10.9%
	36 I am aware of others who have been subjected to HIRD within the last 6 months	12.4%	14.6%	4.8%	15.3%	10.2%	22.3%

<5% Negative Response
Between 5% and 10% Negative Response
>10% Negative Response

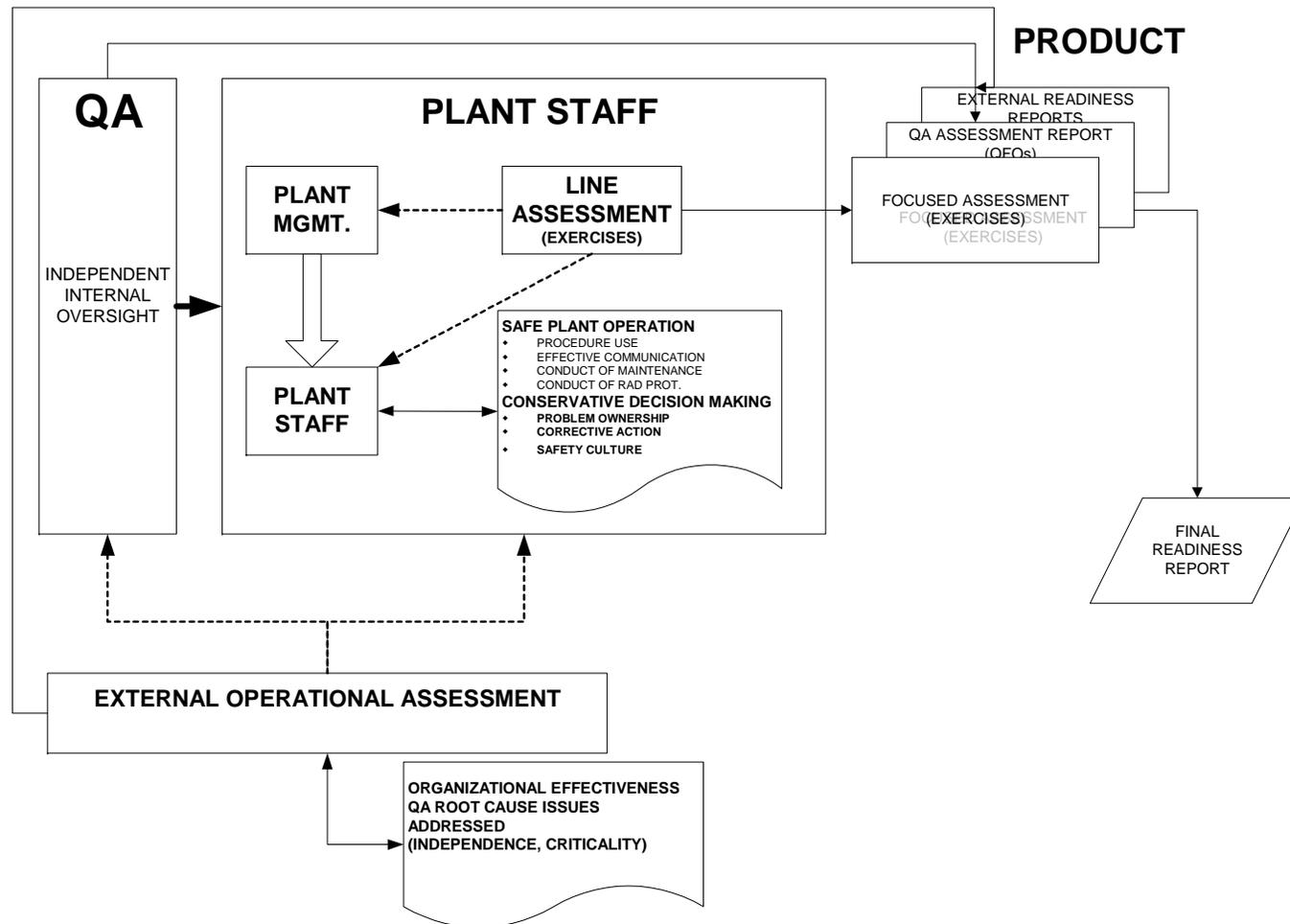
# Actions Leading to Mode 4

- Operations Leadership
- Supporting Groups
- Station Safety Culture

# Mode 4/3 Execution

- Measurement Model
- Observations
- Conclusions

# INTEGRATED ASSESSMENT DURING SEVEN DAY NOP TESTING



# Mode 4/3 Observations

- External
- Internal Management
- Oversight

# Conclusions

- Pre Mode 4/3
- Mode 4/3 Activities
- Safety Culture & SCWE
- Recommendations

# Remaining Organizational Actions

**Mark Bezilla**  
**Vice President - Davis Besse**

# Remaining Organizational Actions

- Organizational Actions to be completed
  - Completion of 10CFR 50.9, ‘Completeness and Accuracy of Information’ training
  - Strengthen our Calculation Program
    - Contracted Sargent and Lundy to review Condition Report Apparent Causes with calculations
  - Strengthen our Condition Report Process
    - Condition Report Evaluators will receive Apparent Cause training
    - Establish an Apparent Cause Review Group consisting of Condition Report Analysts

# Remaining Organizational Actions

- Organizational Actions to be completed (continued)
  - Alignment / teamwork sessions with all employees
    - One day-long site alignment / teambuilding sessions with employees
    - Learning Map rollout
  - Address Lessons-Learned and actions resulting from Nuclear Operating Pressure Test
  - Restart Readiness Reviews



# Long-Term Organizational Effectiveness Vision

**Gary Leidich**

**President and Chief Nuclear Officer - FENOC**

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# Long-Term Organizational Effectiveness Vision



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



*Davis-Besse*



*Beaver Valley*



*Perry*

# Long-Term Organizational Effectiveness Vision

New FENOC Vision, Strategic Objectives, and Metrics

Safe Plant Operation

People Development and Effectiveness

Excellent Material Condition

Improved Outage Performance

Fleet Efficiency and Effectiveness

# Long-Term Organizational Effectiveness Vision

- Organizational Effectiveness
  - High levels of trust
    - Employees trust leadership
    - Leadership trusts employees
  - Open communications
    - Speaking and listening
  - Demonstrated respect for each other
  - Input and feedback valued
  - High accountability to each other
  - Demonstrated inter-department teamwork
  - Willingness to bring up, hear, and address problems
  - Management involvement in activities and decisions
  - Fleetwide Organizational Effectiveness Director



# Long-Term Improvement Plan

**Randy Fast**

**Director- Organizational Development**

# **Actions to Anchor Long-Term Improvement**

New officers and management

At corporate level

At plant level

New corporate-level departments for fleet-wide  
improvements

Improvements in plant systems to add margin

# **Actions to Anchor Long-Term Improvement**

## Improvements for Personnel Performance

Training on lessons learned

New training for managers and supervisors on  
nuclear safety focus and professionalism

Department level expectations

Improvements in communications and teamwork

Alignment of management and personnel

Improvements in personnel evaluations and  
development

Leadership development

Operations Leadership

New Employee Orientation Manual

# Actions to Anchor Long-Term Improvement

Improvements in Programs

Program reviews and benchmarking

Corrective Action Program

Employee Concerns Program

Operating Experience Program

Radiation Protection Program

Boric Acid Corrosion Control and Leak

Detection Programs

Operability Evaluations

Problem Solving and Decision-Making

# **Actions to Anchor Long-Term Improvement**

Improvements in Monitoring and Oversight

Management Observations

New performance indicators

New Safety Culture Assessments

New Engineering Assessment Board and improved  
Corrective Action Review Board

Augmented independence and capability of Quality  
Assurance

Improvements in Company Nuclear Review Board  
and Board oversight

# Long-Term Improvement Plan

- Future monitoring schedule
  - Business Practice to ‘monitor’ the safety culture monthly along with Business Practice performance
  - Line organization safety culture assessment prior to Mode 2
  - Line Management Safety Assessment every two years
  - SCWE survey in the 4th quarter of 2003 (annually thereafter)
  - Quality Assurance Independent Assessment in the 4th quarter of 2003 (annually thereafter)
  - Outside independent safety culture assessment in the 4th quarter of 2004

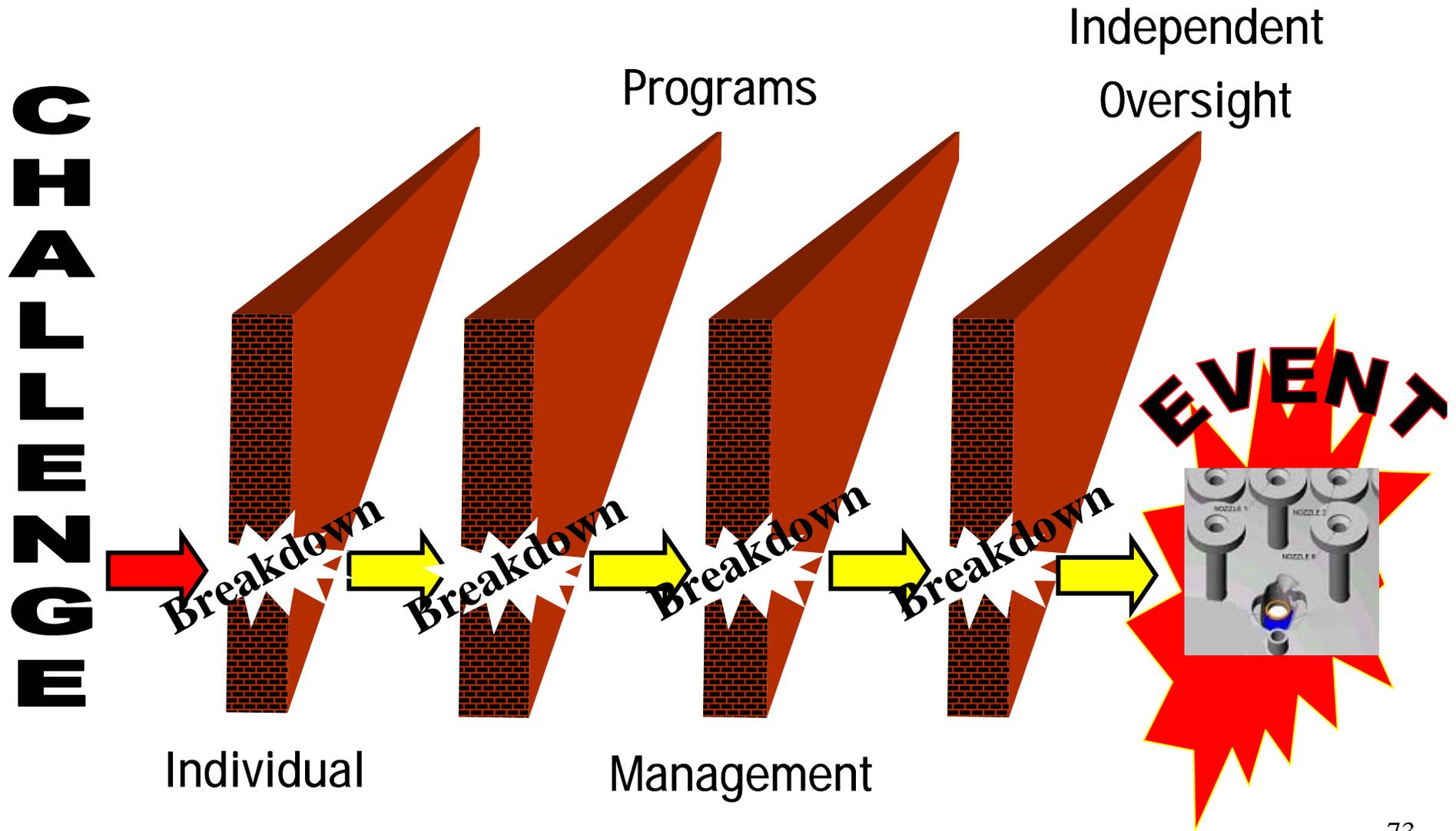


# Barriers Demonstrating FENOC'S Strong Safety Focus

**Lew Myers**  
Chief Operating Officer - FENOC

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**FirstEnergy**® **Barriers Demonstrating FENOC'S  
Strong Safety Focus**



# Barriers Demonstrating FENOC'S Strong Safety Focus

## Individual

Drive for Excellence

Questioning Attitudes

Rigorous Work Control and Prudent Approach

Open Communications

Nuclear Professionalism

- Individual Commitment - Completed
  - Evaluated Supervisors
  - Provided Reactor Head Case Study Training
  - Provided Supervisor Refresher Training on Leadership in Action
  - Provided Supervisor Training on SCWE
  - Strengthened Individual Ownership and Commitment
    - Engineering Rigor
    - Operability Decision-Making
    - Operator License Responsibilities Training
    - Shift Manager Command Responsibility
  - Participation in Town Hall and 4-C Meetings
  - Participation in Monthly All-Hands Meetings
  - Strengthened Questioning Attitude
    - Standard Format for Pre-Job Briefings
  - Implemented Operator Leadership Plan
  - Requalified All Root Cause Evaluators

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Individual

Drive for Excellence

Questioning Attitudes

Rigorous Work Control and Prudent Approach

Open Communications

Nuclear Professionalism

- Drive for Excellence - Assessment Input
  - Number of Systems Classified Maintenance “a (1)”
  - Number of Workarounds
  - Number of Temporary Modifications
  - Number of Control Room Deficiencies
  - Individual Error Rates
  - Number of Long-Standing Equipment Problems
  - Percent of Self-Identified Condition Reports
  - Number of Engineering Condition Reports Outstanding
  - Engineering Assessment Board Index

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Individual

Drive for Excellence

Questioning Attitudes

Rigorous Work Control and Prudent Approach

Open Communications

Nuclear Professionalism

- Questioning Attitudes - Assessment Input
  - Quality of pre-job briefings as a management observation
  - Number of Condition Reports (CRs) per person per group
  - Number of programmatic CRs
  - Number of procedure problems
  - Number and type of operational events (e.g., tagging errors, mispositioning)

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Individual

Drive for Excellence

Questioning Attitudes

Rigorous Work Control and Prudent Approach

Open Communications

Nuclear Professionalism

- Rigorous Work Control and Prudent Approach - Assessment Input
  - Employee Event Free Clock
  - Industrial Safety Index
  - Employee error rate
  - Program process error rate
  - Significant human performance errors resulting in plant transients
  - Backlog of procedure change requests
  - Quality Control hold point/rework rate
  - Number of work orders
  - Scheduled/completed each week
  - Number of late PMs
  - Backlog of corrective maintenance
  - Number of “a (1)” systems

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Individual

Drive for Excellence

Questioning Attitudes

Rigorous Work Control and Prudent Approach

Open Communications

Nuclear Professionalism

- Open Communications - Assessment Input
  - Number of Condition Reports per person per group
  - Number of concerns going to Employee Concerns Program vs. NRC
  - Ad-hoc surveys pulsing of organization
  - Feedback from 4C's Meeting
  - KIP Program: Keep Improving Performance

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Individual

Drive for Excellence

Questioning Attitudes

Rigorous Work Control and Prudent Approach

Open Communications

Nuclear Professionalism

- Nuclear Professionalism - Assessment Input
  - Completion of Ownership for Excellence
  - Training attendance
  - Rework
  - Individual Development Plans
  - Results of Engineering Assessment Board Assessments
  - Number of yellow windows in training
  - Absence of low-level Radiation Protection events
  - Chemistry Performance Index

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Programs

Statement of Safety Policy

Management Value Structure

Resources

Oversight and Self Regulation

- Policy Level Commitment - Completed
  - FirstEnergy Board Passed Resolution on Nuclear Safety
  - CEO - FirstEnergy Reinforced Safety Commitment
  - Policy Established on Safety Culture
  - Enhanced FENOC Values, Mission, and Vision
  - Business Plan Focus Areas on Safety
  - Board Strengthened Incentive Programs Tie to Safety
  - Implemented FENOC Corporate Organizational Structure Changes
  - Reviewed Resources for Adequacy
  - Established Independent Executive-Level Quality Assurance
  - Greatly Strengthened Employee Concerns Program
  - Established a SCWE Policy

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Programs

Statement of Safety Policy

Management Value Structure

Resources

Oversight and Self Regulation

- Policy Level Commitment - Completed
  - Established a safety policy and emphasis on a regular basis by senior management
  - Ad-Hoc surveys of employee awareness of safety policy
  - Oversight evaluation of SCWE and safety performance
  - Anchored in performance appraisal program
  - Assessed adequacy of resources during Restart Readiness Review

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Management

Emphasis on Safety

Clear Responsibilities and Cohesiveness

Acceptance of Responsibility

Qualification and Training

High Organizational Commitment

- Management Commitment - Completed
  - Improved Management Technical Competence
  - Strengthened Corrective Action Review Board
  - Established Engineering Assessment Board
  - Increased Manager Involvement in Safety-Related Work
  - Revised Competencies in Appraisal Process
    - Nuclear Professionalism and Safety Consciousness
  - Leadership in Action Training on Additional Competencies
  - Assigned Owners and New Expectations for Engineering and Programs
  - Established Strong Management Observation Program
    - Field and Training Observations
  - Established High Organizational Commitments
    - Programs Benchmarked to Industry's Best
    - Design Modifications to Improve Safety Margins
  - Improved Problem Solving and Decision-Making Procedure
  - Restart Review Meetings for Changes in Plant Modes
  - Lincoln Consulting Group Strategies and Activities to Increase Leadership, Teamwork and Alignment

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Management

Emphasis on Safety

Clear Responsibilities and Cohesiveness

Acceptance of Responsibility

Qualification and Training

High Organizational Commitment

- Emphasis on Safety - Assessment Input
  - Implementation of Management Observation Program
  - Frequency of plant tours and questioning of observed conditions
  - Nuclear safety emphasized to employees on a regular basis
  - Completion of Leadership in Action and SCWE Training
  - Encouragement of employee questioning attitude on safety (e.g., newsletters, 4 C's Meetings)
  - Recognition of employees who improve safety
  - Application of NOP-ER-3001, Problem Solving and Decision Making
  - Program ownership (e.g., fuel reliability)
  - Modifications to improve margins (e.g., containment emergency sump)
  - Operator Recertification Program

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Management

Emphasis on Safety

Clear Responsibilities and Cohesiveness

Acceptance of Responsibility

Qualification and Training

High Organizational Commitment

- Clear Responsibilities and Cohesiveness - Assessment Input
  - Personnel Error Rate
  - Demonstration of clear ownership of programs
  - Ad-Hoc surveys to pulse organization's understanding that nuclear safety is the highest priority
  - Corrective Action Review Board assessments of ownership
  - Engineering Assessment Board evaluations of ownership
  - Program ownership (e.g., Leak Rate Program, Boric Acid Control Program, Reactivity Management Program)

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Management

Emphasis on Safety

Clear Responsibilities and Cohesiveness

Acceptance of Responsibility

Qualification and Training

High Organizational Commitment

- Acceptance of Responsibility - Assessment Input
  - Performance Appraisals/Development Plans
  - Ad-Hoc surveys of willingness to challenge employees, other managers and superiors regarding safety considerations
  - System assessment as a means to increase safety margins, such as
    - **FLÜS** Leak Monitoring System
    - Containment Emergency Sump
    - Diesel Starting Air
  - Nuclear Quality Assurance Field Assessments
  - Number of Management Observations Requiring Coaching

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Management

Emphasis on Safety

Clear Responsibilities and Cohesiveness

Acceptance of Responsibility

Qualification and Training

High Organizational Commitment

- Qualification and Training - Assessment Input
  - Benchmarking of organizational staffing
  - Restart required training
  - Root cause training completed (e.g., Tap Root)
  - Operability determination training (> 175 individuals)
  - Training on legal responsibilities of licensed operators
  - SCWE Training (>300 Individuals)
  - Standdown on January 27 on Safety Culture Policy
  - Training on NOP-ER-3001, Problem Solving and Decision-Making (e.g., Decay Heat Pump, Cavity Seal Post Mod Testing)
  - Training on Reactor Head Case Study
  - Training on Standards and Expectations
  - Training identified by Curriculum Review Committee meetings

# Barriers Demonstrating FENOC'S Strong Safety Focus

## Management

Emphasis on Safety

Clear Responsibilities and Cohesiveness

Acceptance of Responsibility

Qualification and Training

High Organizational Commitment

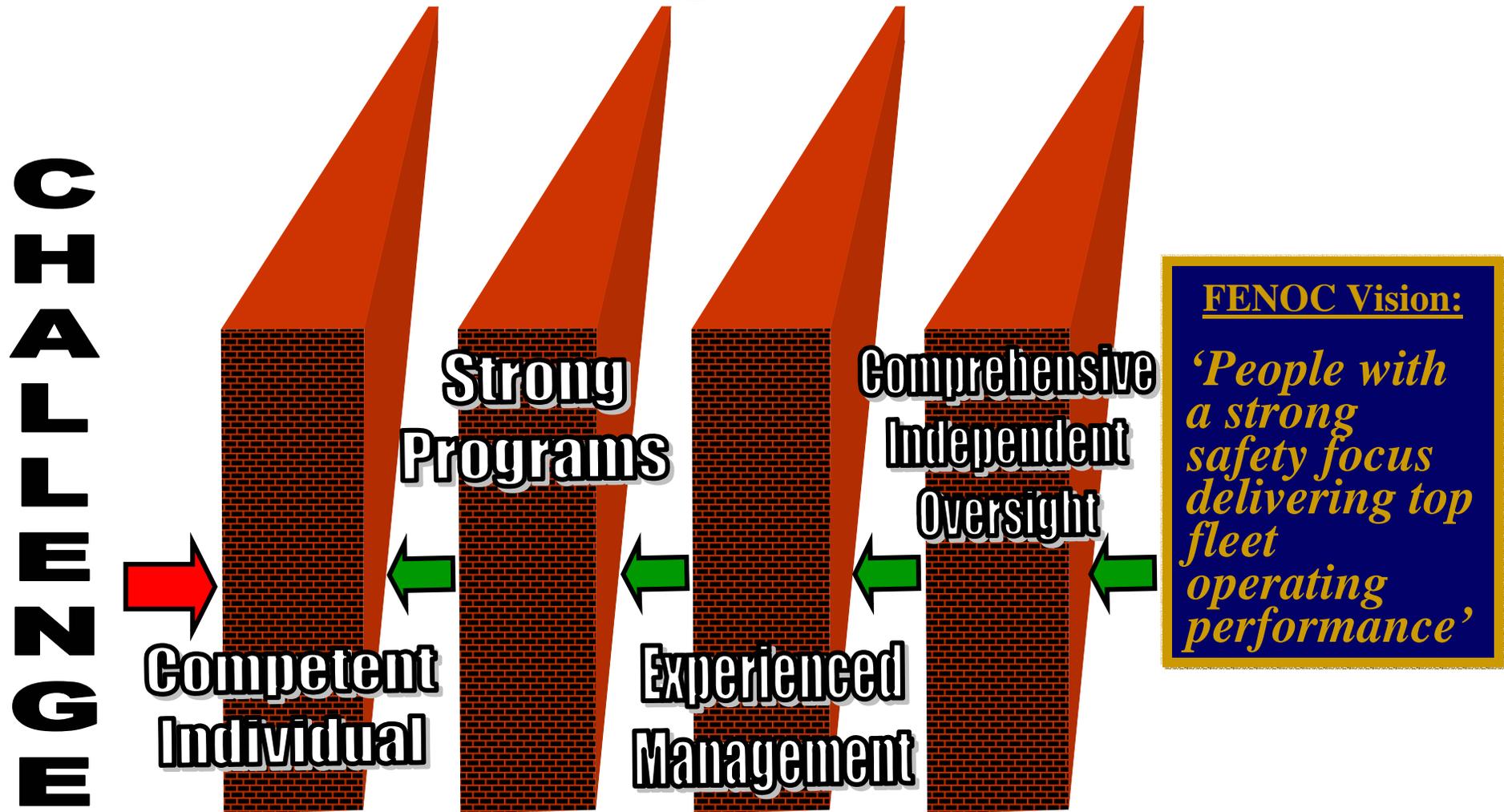
- High Organizational Commitment - Assessment Input
  - Implementation and training of employees on Safety Conscious Work Environment
  - Effective Employee Concern Program
  - Restart Oversight Panel Assessment
  - Licensed Operator Pipeline
  - Benchmark programs against industry standards
  - Operator crew benchmarking
  - Scheduled Management Observation Program
  - Goals for zero temporary modifications, zero control room deficiencies, and zero operator work arounds

# Barriers Demonstrating FENOC'S Strong Safety Focus

**Independent Oversight**

- Independent Oversight - Completed
  - Enhanced Quality Assessment Organization
  - Vice President Oversight
  - CNRB Rechartered
  - Nuclear Committee of the Board of Directors
  - Quality Control Realignment
  - Safety Conscious Work Environment Program
  - Employee Concerns Program
  - INPO Assist Visits
  - Restart Overview Panel
  - Quality Assurance Quarterly Assessment
  - Safety Culture Assessment

# FirstEnergy® Barriers Demonstrating FENOC'S Strong Safety Focus



## Seven Day NOP Test

- Challenges occurred during preparation and during Normal Operating Pressure (NOP) Test
  - Core Flood Tank Valve
  - Containment Spray Pump Breaker
  - Auxiliary Feedwater Fuses
  - Auxiliary Feedwater Pump No. 1 Testing
- Right level of attention
  - Each work activity stopped upon discovery of issue
  - Problem-Solving/Decision-Making Team assembled
  - Management attention focused on issue
  - Personnel and material issues resolved
- Completed NOP Test



# Closing Comments

**Lew Myers**

**Chief Operating Officer - FENOC**

**Gary Leidich**

**President and Chief Nuclear  
Officer - FENOC**