

# Davis-Besse Management and Human Performance Improvement Plan

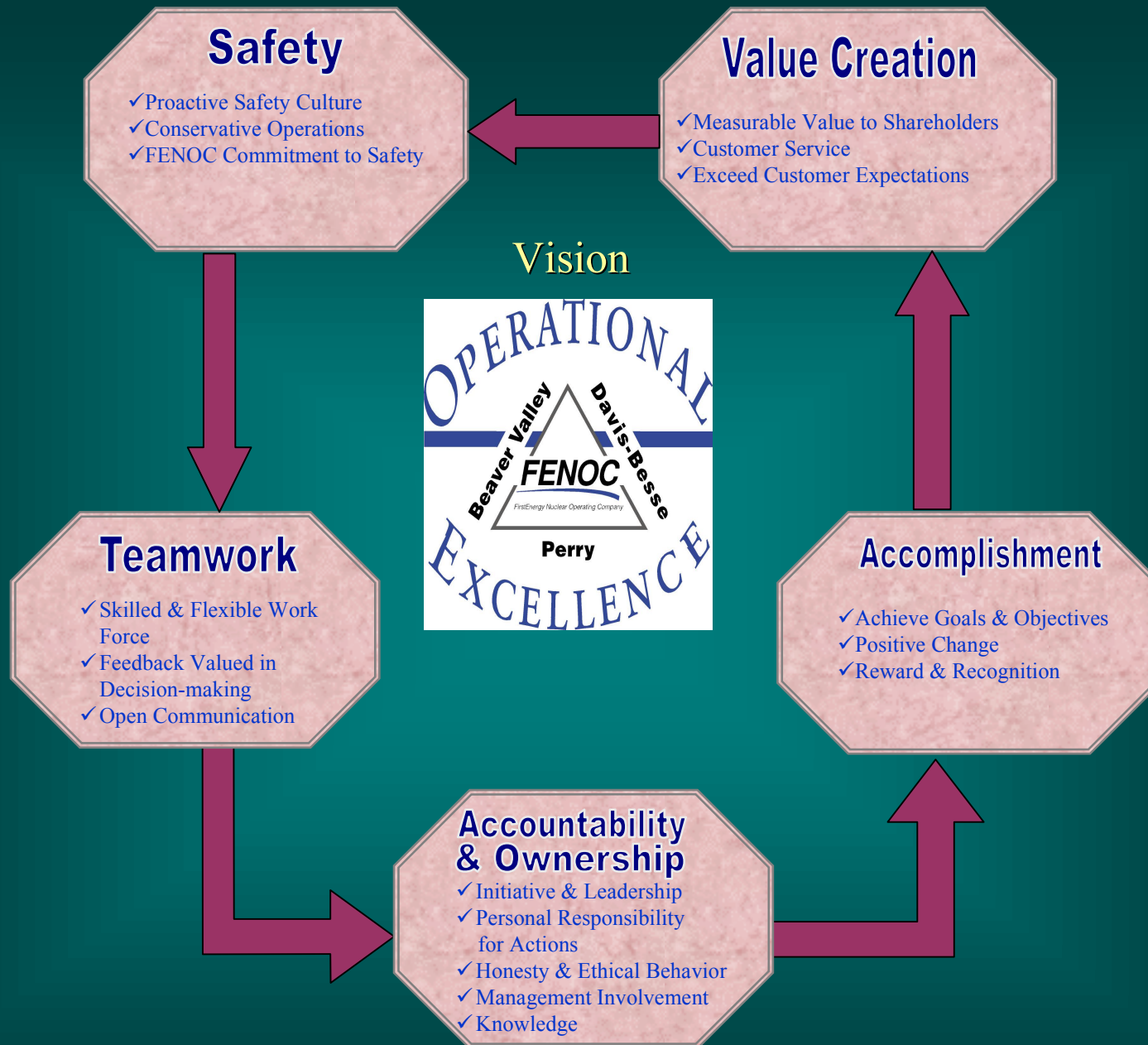
September 18, 2002

# Welcome

*Lew Myers*  
*Chief Operating Officer*

## Desired Outcomes

- Discuss Management and Human Performance Improvement Plan
- Discuss the plan for improving our implementation of the Corrective Action Program
- Review results of the Safety Conscious Work Environment Survey and our plan for improvement



Mission: People providing safe, reliable and cost effective nuclear generation

Designed for restart and to provide for longer-term sustained performance.

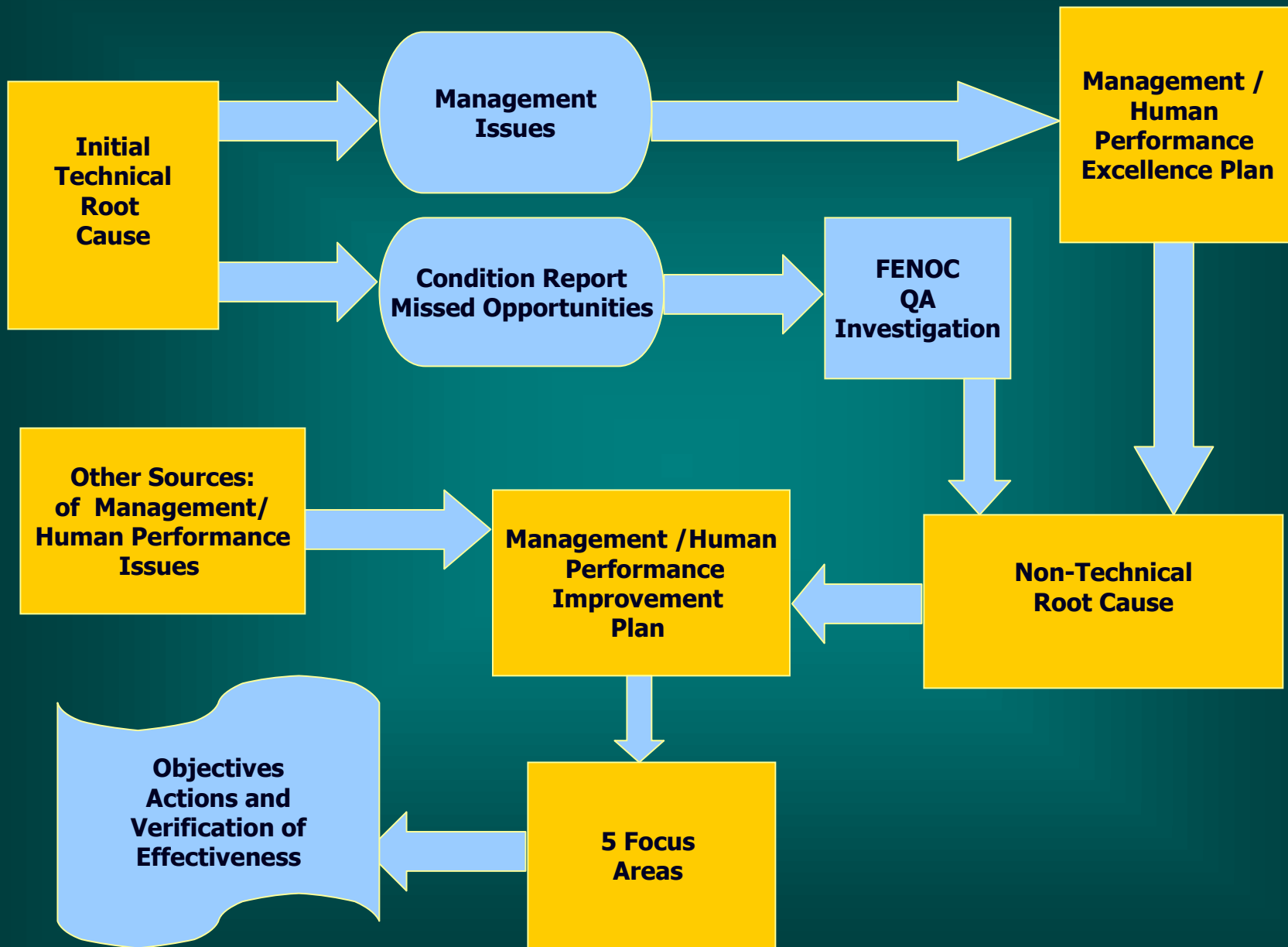
## Basic Building Blocks



# Root Causes

*Steve Loehlein*

*Manager - Quality Assessment*



# Root Causes

- Less than adequate nuclear safety focus
- Less than adequate implementation of the Corrective Action Program
  - Addressing symptoms rather than causes
  - Low categorization of conditions
  - Inadequate cause determinations
  - Inadequate corrective actions
  - Inadequate trending
- Failure to integrate and apply key industry information and site knowledge
- Non-Compliance with the Boric Acid Corrosion Control Procedure and Inservice Inspection Program



# Root Cause Analysis Team



- Lead: Steve Loehlein (Beaver Valley)
- Bill Babiak (Perry)
- Mario DeStefano (Perry)
- Randy Rossomme (Beaver Valley)
- Lesley Wildfong (Conger & Elsea)
- Bill Mugge (Davis-Besse)
- Joe Sturdavant (Davis-Besse)
- Bobby Villines (Davis-Besse)
- Dick Smith (Conger & Elsea)
- Spyros Traiforos
- Oversight:  
Dorian Conger and Ken Elsea (C&E)

# Management and Human Performance Implementation Plan

*Dave Eshelman*  
*Director - Life Cycle Management*





# Senior Management Team Standards

- We are committed to implementing the FENOC Mission, Vision and Values
- ⑩ We will demonstrate our commitment to safety; demonstrate leadership courage with safety first and foremost
- ⑩ We will recognize the Value of our people
- ⑩ We pledge to uphold the Leadership in Action Principles
- ⑩ We will earn the right to lead through our behaviors and actions.

# Objectives of the Plan

- Actions
  - Identification of Actions
  - Designation of Restart Actions
  - Designation of Responsible Managers
  - Schedule for Activities
- Verification of Effectiveness
  - Performance Indicators and Goals
  - Assessments
- Plan is a Living Document long after restart

# Improvements in Safety Culture

## Objective:

FENOC has the following objective for safety culture at Davis-Besse:

*Nuclear, radiological, and personnel safety have the highest priority and take precedence over other objectives, such as cost and production. Personnel feel free to raise safety concerns without fear of retaliation, and concerns are investigated and resolved in a timely manner.*

# Nuclear Safety Culture Initiatives

- FENOC Safety Policy
- SCWE Improvement Plan / SCWE Surveys
- New Management: FENOC Executive; Senior DB
- Safety Focus Training
- People Team
- Business Plan Alignment of Performance Incentives



# Nuclear Safety Culture Initiatives

- Employee communication opportunities:
  - 4-C's meetings; Town Hall Meetings
  - ROP Employee Meetings
- Case Study Training
- Management Oversight Improvements:
  - Management Monitoring Program
  - Management Observation Scheduling

# Verification of Effectiveness

- Self-Identification of Adverse Conditions indicator. The goal for restart is 80% or more.
  - Self-Assessments – Each group will include an evaluation of the safety focus.
  - Management Observations
  - SCWE Assessments – Conduct periodic assessments of SCWE at Davis-Besse. The goal for restart is to have an improving trend in SCWE.

# Improvements in Management/ Personnel Development

## Objective

FENOC has the following objective for its management of Davis-Besse:

*Managers are experienced, have high safety standards, and are involved in directing and overseeing plant activities.*

# Improvements in Management/ Personnel Development

- New Management team
- Standards for Management
- Operations Improvement Plan
- Supervisory Evaluations
- Leadership in Action Training
- Foundations for Leadership
- Ownership for Excellence
- Management Monitoring Process

# Verification of Effectiveness

## Indicators

- Management Monitoring
  - Quality of pre-job briefs
  - Proper safety practices and equipment
  - Effective communications
  - Supervisory behaviors
  - Procedure or document use
  - Use of Station Error-Prevention tools
- Individual -error rate per 10,000 person-hours worked. The goal for restart is 0.50
- Accept As-Is disposition of Condition Reports

# Verification of Effectiveness

## Assessments

- INPO Assist Visit
- Restart Overview Panel

# Improvements in Standards and Decision-Making

## Objective

FENOC has the following objective for decision-making and technical assessments at Davis-Besse:

*Decision-making and technical standards have a nuclear safety focus, have technical rigor, account for operating experience, and seek to correct problems rather than justifying acceptance of the problems.*

# Improvements in Standards and Decision-Making

- Decision-Making Nuclear Operating Procedure
- Establish Technical Staff Expectations
- Improvements in Use of Operating Experience
- Increased Resource Sharing with FENOC Plants
- Augmentation of the Engineering Staff
- FENOC Hierarchy of Documents
- Operations Oversight Executive



# Improvements in Standards and Decision-Making

- Operations Excellence Plan
- Plant Labeling Improvements and Equipment
- Case Study
- Training on Technical Standards
- Creation of a Management Observation Program
- Establishment of an Engineering Assessment Board

# Verification of Effectiveness

## Indicators

- Assessment of Decision-Making Nuclear Operating Procedure
- Engineering Assessment Board Indicators
- Management Observation
- Open Control Room Deficiencies
- Open Operator Work-Arounds
- Open Temporary Modifications

# Oversight and Assessment

## Objective

FENOC has the following objective for oversight and assessments at Davis-Besse:

*Davis-Besse has provisions for oversight and assessments, which are effective in identifying and correcting problems before they adversely affect safety and quality.*

# Oversight and Assessment

- New Oversight Groups
  - Creation of a Restart Overview Panel
  - Establishment of an Engineering Assessment Board
  - Creation of Restart Readiness Reviews by the Senior Management Team

# Oversight and Assessment

## Permanently Strengthen Existing Groups

- Improvements in Corrective Action Review Board
- Improvements in Senior Training Council
- Improvements in Engineering product reviews (Engineering Assessment Board)
- Improvements in the Project Review Committee
- Improvements in Quality Assessment
- Improvements in the Company Nuclear Review Board

# Oversight and Assessment

## New permanent assessments activities

- Restart Readiness Reviews
- Periodic System Reviews
- Periodic Program Reviews
- Improved Expectations and Standards for Oversight
- Weekend Duty Oversight
- Management Observation Program

# Verification of Effectiveness

## Performance Indicators

- Management Assessment of Readiness for Restart
- Corrective Action Program is effectively implemented to support restart
- Engineering products support restart
- Quality Assessment will track the number of Condition Reports it prepares
- Quality Assessment will track the number of Condition Reports it prepares that involve a repeat of previous conditions identified

# Improvements in Programs/Corrective Action/Procedure Compliance

## Objective

FENOC has the following objective for programs, corrective action and procedure adherence at Davis-Besse:

*Programs comply with NRC regulations, incorporate applicable operating experience, and are effectively implemented. Adverse conditions (including adverse trends) are promptly identified and documented. The root causes of significant conditions adverse to quality are identified, actions are taken to preclude recurrence of the conditions, and the preventive actions are effective. Personnel comply with procedures as written, or obtain proper revisions as needed.*



# Programs/Corrective Action/Procedure Compliance Initiatives

## Actions to Improve Programs

- Program Compliance Building Block Plan
  - Program Ownership
  - Expectations for Program Ownership
  - Improvements to the Ownership Model
  - Qualification Process for Owners
  - Improvements to the Self-Assessment Program

# Programs/Corrective Action/Procedure Compliance Initiatives

## Actions to Improve Program/Procedure Compliance:

- Reinforcing Standards for Procedure Compliance
- Emphasis on Procedure Compliance at Morning Meetings
- Management Observations

# Programs/Corrective Action/Procedure Compliance Initiatives

## Specific Program Changes

- Boric Acid Corrosion Control (BACC) Program
- In-service Inspection (ISI)
- Corrective Action program

# Programs/Corrective Action/Procedure Compliance Initiatives

## Improvements in Corrective Action

- Improvements in Operability Reviews
- Improvements in Categorization of Adverse Conditions
- Improvements in Cause Determinations
- Improvements in Corrective Actions
- Improvements in Trending
- Improvements in the Corrective Action Review Board
- Improvements in Causal Analysis Review Group

# Verification of Effectiveness

## Performance Indicators

- Programs and Procedure Compliance
  - Individual program health indicator
  - Program and Process Errors
    - The goal for restart is 0.7 per 10,000 person-hours
  - Condition Reports due to failure to follow procedures
  - Management observations of procedure compliance

# Verification of Effectiveness

## Performance Indicators

- Corrective Actions
  - Categorization Adequacy  
The goal is to have 95% or better
  - Root Cause Quality  
The goal of 90% or better has been established
  - Corrective Action Adequacy  
The goal is 90% or better
  - Repeat Events
  - Timeliness of Corrective Actions

# Verification of Effectiveness

## Assessments

- Programs and Procedure Compliance
  - Program Reviews
  - Quality Assessment audits of procedure compliance.
  - Human Performance Evaluation System (HPES) analysis
  - Quality Assessment surveillances of procedure compliance

# Verification of Effectiveness

## Assessments

- Corrective Actions
  - Engineering Assessment Board review of corrective actions
  - Independent assessment of the adequacy of corrective actions on a semiannual basis.
  - Quality Assessment detailed audits of the adequacy of corrective actions



# Overall Performance Indicators to Measure Improvement

- Self-Identification of Adverse Conditions  
The goal for restart is 80%
- Open Control Room Deficiencies  
The goal is to have zero at restart
- Open Operator Work-Arounds  
The goal is to have zero at restart
- Open Temporary Modifications  
The goal is to have zero at restart
- Root Cause Quality  
The goal is 90% or better

# Overall Performance Indicators to Measure Improvement

- EAB Indicators of quality
- Total Maintenance Backlog  
The goal for restart is less than 500
- Open Modifications  
The goal for restart is less than 200
- Open Procedure Change Request  
The goal for restart is 250
- Restart Training Completion

# Corrective Action Process Improvement

*Dave Gudger,  
Manager - Performance Improvement  
Corrective Action Process Owner*

*September 18, 2002*


# Corrective Action Process Improvement

## Purpose

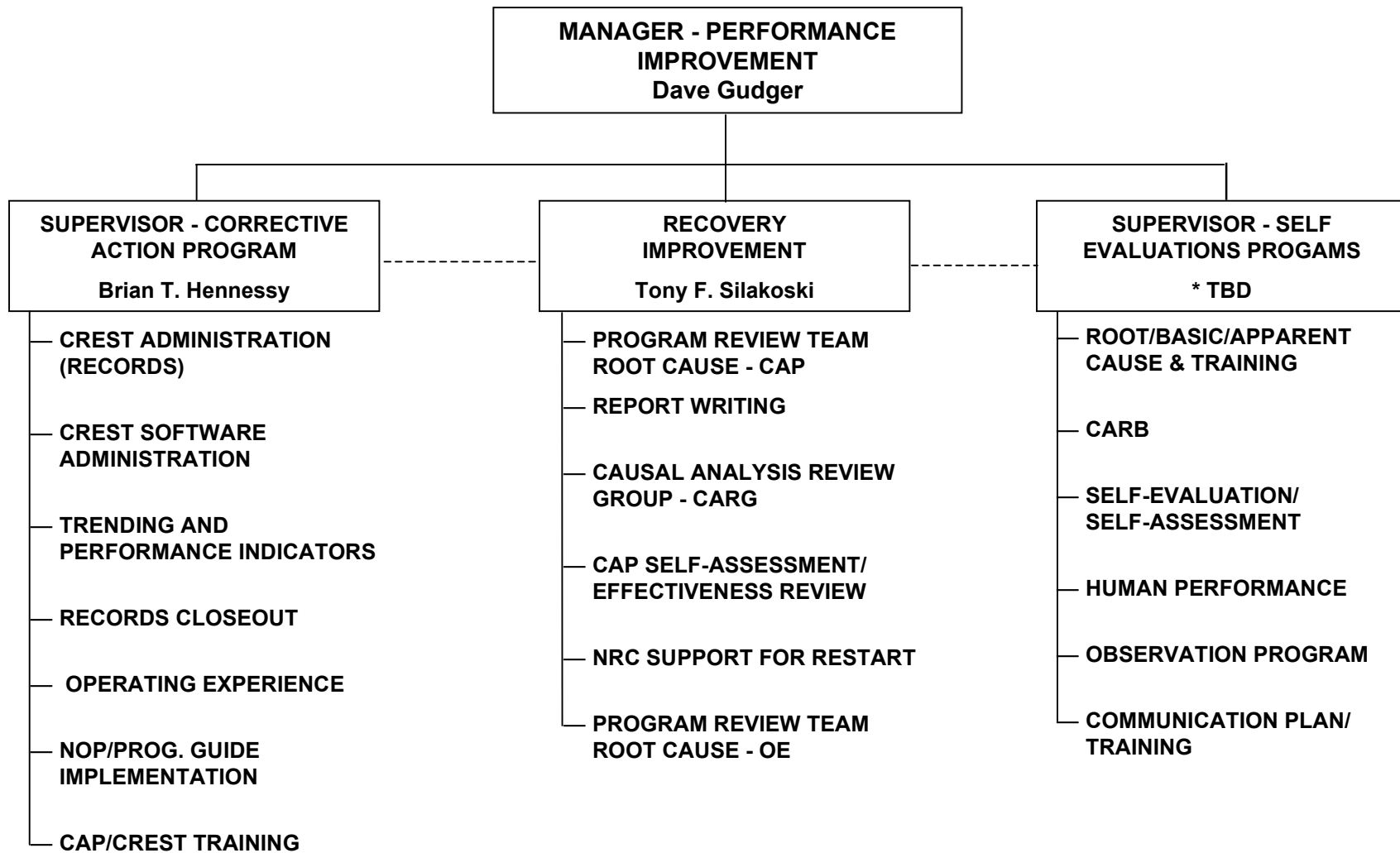
- To discuss the Corrective Action Program improvement plan to address the following items:
  - Corrective Action Program issue
  - Interim/Compensatory measures established for assurance of program integrity
  - Approach to long-term improvement plan

# Corrective Action Process Improvement

## Corrective Action Program Issue

- Non-Technical Root Cause identified that the implementation of the Corrective Active Program was less than adequate as indicated by the following:
    - Addressing symptoms rather than causes
    - Low categorization of conditions
    - Inadequate corrective actions
    - Inadequate trending
-  Program elements determined to be adequate

# Performance Improvement Organization



# Interim and Compensatory Measures Completed

## Compensatory Measures

- Barrier Analysis
- Corrective Action Program owners directly involved with management categorization
- Standards enhanced for Senior Reactor Operator reviews
- Causal Analysis Review Group established
- Corrective Action Review Board chaired by Plant Manager
- Corrective Action expert facilitation
- Corrective Action Program closure review

# Major Improvement Initiatives

## New Causal Analysis Review Group Functions

- Review of Basic Cause Evaluations and selected Conditions Adverse to Quality to:
  - Ensure cause quality and programmatic requirement adherence
  - Provide peer review feedback to evaluator and approver for long term quality behavior improvements
  - Used as a Corrective Action Program Users' Group
  - Develop individual departmental corrective action improvement plans in coordination with the Program Owner and other sections and department



# Major Improvement Initiatives

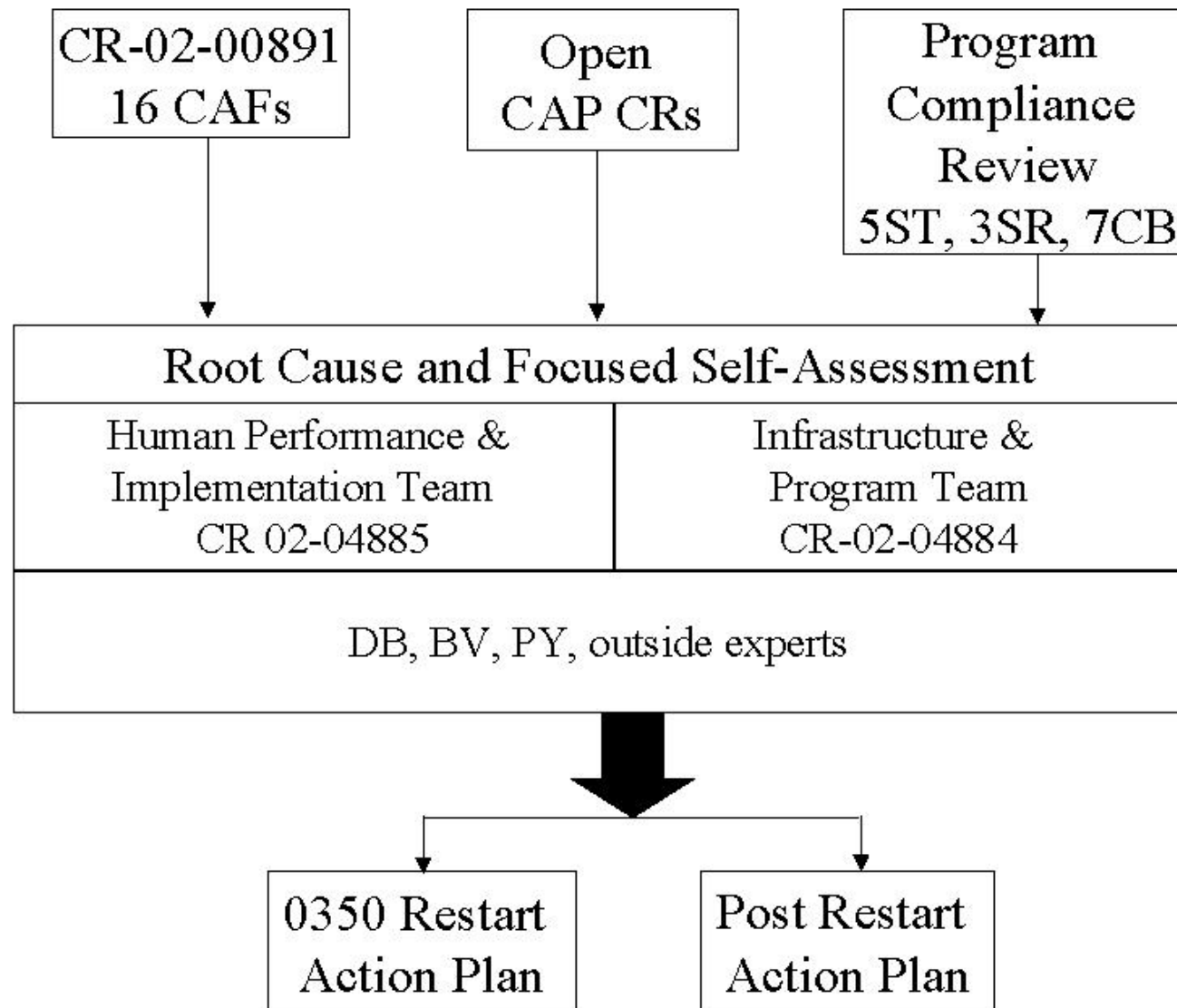
## NEW CAP Performance Indicators

**Purpose:** To monitor transition to improved quality and ownership.

 **Establishing Performance Category Measures for each program attribute to be in place by September 30<sup>th</sup>.**

- Productivity
- Timeliness
- Efficiency
- Quality
- Effectiveness

# Root Cause / CAP Focused Assessment



# Conclusion

**We understand what the Corrective Action Program issues are. We have interim measures to address them. We are developing a long-term improvement plan.**

**DAVIS-BESSE**  
**Safety Conscious Work**  
**Environment**  
**Independent Assessment**



*Presentation for NRC Meeting*

*September 18, 2002*

*L.W. Pearce*

# Agenda

- Assessment Structure and Methodology
- Survey Results
- Actions to Address Assessment Findings
- Conclusion

# Structure and Methodology

## Team:

- Ken Woessner (*FirstEnergy QA*)
- Stewart Ebnetter (*Ind. Consultant, Former NRC Senior Manager*)
- George Edgar & Paul Zaffuts (*Morgan Lewis*)

## Four Core Criteria and Thirteen Attributes Derived From NRC Policy Statement:

- Worker willingness to Raise Concerns / Management Support for Raising Concerns.
- Effectiveness of ECP/Ombudsman Program.
- Management's Effectiveness in Resolving Issues Using Normal Processes.
- Management's Effectiveness in Detecting and Preventing Retaliation and Chilling Effect.

# Structure and Methodology

## Data Sources:

- Survey of Large FENOC and Contractor Personnel Sample.
- SCWE-Related Policies, Procedures, and Work Practices.
- SCWE Performance Indicators.
- Diagnostic Quiz on SCWE Principles Provided to 20 Management Personnel.
- Interviews of Selected Personnel.

# Survey Results - Willingness of Workers to Raise Concerns

## KEY SURVEY QUESTIONS

## AGREE OR STRONGLY AGREE

	1999	1/2002	8/2002
☐ Ability to challenge non-conservative decision by management?	48%	81%	70%
☐ Feel free to approach mgmt. with nuclear/quality concerns?	80%	92%	80%
☐ Raise nuclear/quality concerns w/out fear of retaliation?	73%	89%	72%

## PERFORMANCE INDICATOR

	1999	2000	2001	7/2002
Condition reports initiated -----	2308	3253	3478	5700 (annualized)

Although workers are writing CRs in increasing numbers, they have declining confidence in their ability to approach management with concerns or challenge non-conservative management decisions.



# Survey Results - Management Support for Raising Concerns

## KEY SURVEY QUESTIONS

## AGREE OR STRONGLY AGREE

	1999	1/2002	8/2002
☐ Mgmt wants concerns reported?	84%	86%	76%
☐ Mgmt is willing to listen to problems?	47%	72%	63%
☐ Constructive criticism is encouraged?	44%	70%	52%
☐ Mgmt. cares more about identification / resolution of nuclear/quality concerns than cost/schedule?	NA	NA	39%

There has been an erosion in worker perception of management's commitment to encourage, address, and resolve concerns.

# Survey Results - ECP/Ombudsman

## KEY SURVEY QUESTIONS

## AGREE OR STRONGLY AGREE

	1999	1/2002	8/2002
☐ I can use ECP/Ombudsman without fear of reprisal?	59%	85%	70%
☐ ECP/Ombudsman will maintain confidentiality?	56%	77%	66%
☐ Upper management supports the ECP/Ombudsman program?	NA	77%	60%

## PERFORMANCE INDICATOR

	1999	2000	2001	7/2002
Ombudsman contacts -----	5	21	18	42 (annualized)
Ombudsman investigations -----	4	6	2	12 (annualized)

- Contacts are increasing while necessary resources devoted to Ombudsman program are not.
- Workers continue to use Ombudsman program as alternative to line management.
- However, perceived lack of management support of the Ombudsman could lead to erosion of worker confidence in ability of program to adequately address issues.

# Survey Results - Effectiveness in Resolving Issues Using Normal Processes

## KEY SURVEY QUESTIONS

## AGREE OR STRONGLY AGREE

	1999	1/2002	8/2002
☐ CAP is effective to identify potential nuclear safety / quality issues?	41%	82%	57%
☐ Free to report concerns using CAP without fear of reprisal?	69%	87%	71%
☐ Issues in CAP are prioritized appropriately, investigated thoroughly, and timely resolved?	59%	70%	41%
☐ CAP effective to timely resolve conditions adverse to quality?	44%	68%	42%
☐ CAP effective to address root causes and broader implications of nuclear safety / quality issues?	45%	75%	45%

## PERFORMANCE INDICATOR

	1999	2000	2001	8/2002
NRC allegations (2002) -----	3	0	2	25* (as of 9/1)

\*At least 4 of the 25 referred allegations were initiated by non D-B personnel.

# Survey Results - Mgmt Effectiveness in Detecting and Preventing Retaliation

## KEY SURVEY QUESTIONS

## AGREE OR STRONGLY AGREE

	1999	1/2002	8/2002
☐ I have been adequately trained on the various processes for reporting and documenting nuclear / quality concerns?	NA	NA	72%
☐ My supervisors / managers have been adequately trained on the various processes for reporting and documenting nuclear / quality concerns?	NA	NA	61%
☐ I have been subject to HIRD for raising nuclear / quality concerns?	NA	NA	Yes - 7% (26)
☐ I know of instances in which workers in my workgroup have been subject to HIRD for raising nuclear / quality concerns?	NA	NA	Yes - 12% (46)

# Actions to Address Assessment Findings

- The assessment recommendations have been translated into a "SCWE Action Plan."
  - The SCWE Action Plan has been incorporated into is a part of the Management and Human Performance Improvement Plan.
  - Additional management resources from outside Davis-Besse will assist in implementing the Action Plan.
- Willingness of Workers to Raise Concerns / Management Support for Raising Concerns:
  - Perform 2d-level review of survey results to identify any "SCWE challenged pockets" within the organization.
  - Expand "Great Catch" program.
  - Publicize the survey results as a "mechanism of change."
  - Periodically repeat survey adding targeted questions.
  - Continue "four C's" meetings program.
  - Include SCWE messages in Davis-Besse case study initiative.

# Actions to Address Assessment Findings

- ECP/Ombudsman:
  - Implement industry best practice tools.
  - Transform to proactive model.
  - Assure no significant issues escape operability / reportability review (see “Issue Management Process,” below).
- Effectiveness in Resolving Issues Using Normal Processes:
  - Complete Program Compliance Plan Review of CAP and implementing corrective actions.
  - Create integrated issue management process to assure timely, coordinated, and effective response to issues received outside CAP.

# Actions to Address Assessment Findings

- Management Effectiveness in Detecting and Preventing Retaliation:
  - Train Officers, Directors, Managers, and Supervisors to detect and avoid retaliation and chilling effects.
  - Establish “People Team” to review significant adverse personnel actions (e.g., discipline above oral reprimand, reductions-in-force, etc.) to prevent retaliation and/or chilling effect, and to respond quickly to any SCWE issues that may arise.
  - Establish Issue Management Process to ensure SCWE issues are handled consistently independent of where they are raised initially.

## Conclusion

- The Results Obtained From the SCWE Assessment Reinforce the Need to Address Davis-Besse's SCWE.
- We Have Developed a SCWE Action Plan To Address the Assessment Results.
- The Action Plan is Underway.



# Success Criteria and NRC SCWE Attributes

- Willingness of Employees to Raise Concerns / Management Support for Raising Concerns.
  - Communication of management expectations (applicable to all criteria).
  - Supervisory and employee training.
- Effectiveness of the Ombudsman Program / ECP.
  - ECP elements and implementation.

# Success Criteria and NRC SCWE Attributes

- Management's Effectiveness in Resolving Issues Using Normal Processes.
  - The Corrective Action Program.
  - Roles and responsibilities of management in resolving employee concerns.
  - Allegations raised outside CAP (NRC, HR, ECP).
  - Self assessments.
- Management's Effectiveness in Detecting and Preventing Retaliation and Chilling Effect.
  - Response to retaliation and related claims.
  - Supervisory training on means to detect and prevent retaliation/chilling effect.
  - Contractor responsibilities.

# Conclusions and Closing Comments

*Lew Myers*  
*Chief Operating Officer*

## Conclusions on the Plan

- Completed Root Cause Report and Developed Focus Areas
- Developed Corrective Actions
- Include Corrective Actions into the Work Plan

# Implementation of the Plan

## Completed Actions

- New FENOC Management Team
- New Davis-Besse Leadership Team
- New Engineering Standards
- SCWE Survey
- Engineering Assessment Board Established
- Restart Overview Panel Established

# Implementation of the Plan

## Completed Actions (continued)

- Operations Oversight Executive added
- Weekend Duty Requirements
- Project Review Committee Enhanced Oversight
- Corrective Action Review Board Enhanced Oversight
- ROP Meetings with Employees
- Augmentation of Engineering

# Implementation of the Plan

## Actions Already Underway

- 4-Cs Meetings
- Town Hall Meetings
- FENOC Resource Sharing
- ROP and EAB Reviews
- Equipment Upgrades
- Management Observations

# Signs of Improved Performance

- We are not where we want to be
- We are showing Improvement



# Overall Conclusions

- Comprehensive Plan in place
- We are Implementing the plan
- We are beginning to see some improvement
- Additional Improvements Needed