



FirstEnergy Nuclear Operating Company

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Docket Number 50-346
License Number NPF-3
Serial Number 1-1443
October 31, 2005

Mr. James L. Caldwell, Administrator
United States Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Subject: Submittal of Revision 9 of the Davis-Besse Nuclear Power Station
Operational Improvement Plan Operating Cycle 14

Dear Mr. Caldwell:

The purpose of this letter is to submit Revision 9 of the Davis-Besse Nuclear Power Station (DBNPS) Operational Improvement Plan Operating Cycle 14, dated October 21, 2005, to the Nuclear Regulatory Commission (NRC). By letter dated April 1, 2005, the FirstEnergy Nuclear Operating Company (FENOC) submitted Revision 8 (DBNPS Letter Serial Number 1-1409) of the DBNPS Operational Improvement Plan Operating Cycle 14. The NRC letter, dated March 8, 2004, "Approval to Restart the Davis-Besse Nuclear Power Station, Closure of Confirmatory Action Letter, and Issuance of Confirmatory Order," (DBNPS Letter Log Number 1-4524) requires FENOC to notify the NRC of changes in the actions committed to in this Plan. The DBNPS Operational Improvement Plan, Revision 9, supercedes all previous revisions in their entirety.

This revision to the Plan includes the identification of initiative actions completed since the prior revision of the Plan and changes to barrier attribute performance indicators as detailed in Attachment 2 of this letter. Additional changes to barrier attribute performance indicators beyond the level of detail level described in the Operational Improvement Plan are included as Attachment 3 of this letter. The changes to the barrier attribute performance indicators were discussed with Ms. Lipa and Mr. Thomas of your staff on October 4, 2005.

Regulatory commitments are identified in the Commitment List (Attachment 1) with changes in commitments from Revision 8 to Revision 9 identified in bold italicized text.

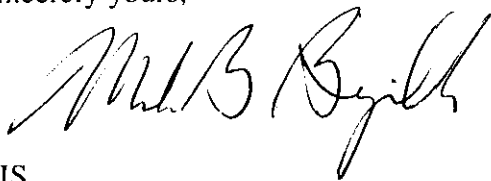
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FENOC will update the DBNPS Operational Improvement Plan Operating Cycle 14 periodically to provide a status of the actions, and will submit subsequent revisions to the NRC following these changes.

If you have any questions or require further information, please contact Mr. Clark A. Price, Manager – Regulatory Compliance, at (419) 321-8585.

Sincerely yours,

A handwritten signature in black ink, appearing to read "M. B. Byrle". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

LJS

Attachments
Enclosure

cc: USNRC Document Control Desk
C. A. Lipa, Chief, Reactor Projects Branch 4
W. A. Macon, DB-1 NRC/NRR Project Manager
C. S. Thomas, DB-1 Senior Resident Inspector
Utility Radiological Safety Board

COMMITMENT LIST

The following list identifies those actions committed to by FENOC's Davis-Besse Nuclear Power Station (DBNPS) in this document. Any other actions discussed in the submittal represent intended or planned actions by the DBNPS. They are described only for information and are not regulatory commitments. Please notify the Manager – Regulatory Compliance (419-321-8585) at the DBNPS of any questions regarding this document or associated regulatory commitments.

The following commitments are based on Revision 9 of the Davis-Besse Operational Improvement Plan Operating Cycle 14. Changes from previous commitments in Revision 8 of the Operational Improvement Plan are identified in ***bold Italics***.

<u>COMMITMENTS</u>	<u>DUE DATE</u>
<u>1. Organizational Effectiveness Improvement Initiative</u>	
1. Improve individual and organizational performance through development and utilization of alignment tools at the Department/Section levels	<i>Complete</i>
2. Implement FENOC Business Practices for:	
a) Focused Self-Assessments	Complete
b) Ongoing Self-Assessments	Complete
c) Benchmarking	Complete
d) Semi-Annual Collective Significance Self-Assessments	Complete
3. Directors and Managers to attend a Leadership Academy to improve management skills	Complete
4. Provide formal Management Observation Skills Training	Complete
5. Enhance the Management Observation Program by ensuring personnel providing oversight monitoring are familiar with DBBP-OPS-0001, "Operations Expectations and Standards"	Complete
6. Implement actions to improve trending of major plant evolutions utilizing the Management Observation Program to track performance and feedback	Complete
7. Provide face-to-face communications training to all site supervisors and above	Complete
8. Re-evaluate all Davis-Besse supervisors to assess competency for current positions	December 31, 2005
9. Conduct Supervisor and Manager Talent Management Talks	Complete
10. Continue with the 4 Cs meetings, D-B Team Meetings, Town Hall Meetings in accordance with Davis-Besse Business Practices	Periodic through Cycle 14

COMMITMENTS

DUE DATE

2. Operations Improvement Initiative

- | | |
|---|----------|
| 1. Implement Operations Improvements: | |
| a. Initiate Operations Leadership Improvements | Complete |
| b. Initiate the 5 year staffing plan | Complete |
| c. Implement improvements to Operations work stations | Complete |
| d. Implement common FENOC Operations work process tools | Complete |
| 2. Improve Operator knowledge, skills and abilities through testing, training and mentoring | Complete |
| 3. Implement the Operations Improvement Action Plan, including: | Complete |
| a. Strengthening Operating Crews, including assessment of operators, training on procedure use, and improving command and control | |
| b. Strengthening Operating Procedures, including validation of key operating procedures and use of reverse pre-job briefs | |
| c. Strengthening Operations Management, including use of Operations Oversight Managers until no longer needed | |
| d. Strengthening Independent Oversight of Operations | |
| 4. Strengthen Communications within Operations | Complete |
| 5. Benchmark Conduct of Operations | Complete |
| 6. Align Performance Indicators to Conduct of Operations | Complete |

<u>COMMITMENTS</u>	<u>DUE DATE</u>
<u>3. Maintenance Improvement Initiative</u>	
1. Utilize post-job evaluations, operating experience, and lessons learned from rework activities to identify improvements in Maintenance training and standards	Complete
2. Perform an assessment of Maintenance effectiveness work planning, scheduling, and implementation of critical equipment outages to identify improvements	Complete
3. Implement improvements of Maintenance Supervision through training and development	Complete
4. Implement actions in the Maintenance individual commitment area to establish improved ownership and accountability of Plant materiel condition	Complete
5. Perform testing of Maintenance staff knowledge, skills and abilities to identify improvement actions and incorporate into training	Complete
<u>4. Training Improvement Initiative</u>	
1. Implement actions to improve individual and organizational performance and alignment by developing and providing training on design and configuration control to appropriate site staff	Complete
2. Establish engineering positional qualification requirements based on the standard FENOC Engineering Organization and complete qualification training for incumbent and new engineers	Complete

COMMITMENTS

DUE DATE

5. Work Management Improvement Initiative

- | | |
|--|---------------------------|
| 1. Common Process | |
| a. Complete training and mentoring to support the effective transition into the FENOC Work Management Process | Complete |
| b. Resolve gaps in process implementation and station procedures | Complete |
| c. Perform quarterly assessments of Condition Reports and Workweek critiques to ensure opportunities for improvement are addressed | Periodic through Cycle 14 |
| d. Implement Risk Management process to improve station knowledge and awareness | Complete |
| e. Monitor and improve Order quality | Complete |
| 2. Maintenance Backlog Reduction | |
| a. Complete walk-down and validation of the Order backlog to ensure proper category, priority, consolidation and elimination of invalid orders | Complete |
| b. Complete Cycle Plan identifying equipment outages and providing the framework for addressing backlog Order priorities and results of the System Health Report | Complete |
| c. Develop performance indicators to monitor and manage Order backlog | Complete |
| 3. Outage Performance | |
| a. Forced Outage Schedule template and readiness | Complete |
| b. Mid-Cycle Outage Preparation | Complete |
| c. Clarify expectations and improve contractor performance | Complete |
| d. 14 th Refueling Outage Preparation | February 28, 2006 |

<u>COMMITMENTS</u>	<u>DUE DATE</u>
<u>6. Engineering Improvement Initiative</u>	
1. Implement actions to improve Safety Margin:	
a. Determine the Safety Margin for the top 10 Risk Significant Systems and develop a plan to improve safety margins	Complete
b. Electrical System coordination improvements	December 31, 2005
c. Masonry/block wall re-analyses and design changes	December 31, 2005
d. Service Water improvements	Periodic through Cycle 14
2. Perform additional Latent Issues Reviews	Periodic through Cycle 14
3. Implement the Design Calculation Improvement Plan	Periodic through Cycle 14
4. Enhance plant equipment performance through the FENOC Equipment Reliability Program	Periodic through Cycle 14
5. Develop and implement the plan to enhance System Engineering ownership of plant systems in support of Operations	Complete
6. Schedule and conduct additional Program Compliance Reviews including:	Complete
a. Qualification of Program Owners	
b. Development of Program Manuals	
c. Creation of Performance Indicators	
7. Establish the appropriate level of workload for Engineering Change Requests and develop a plan to reduce and maintain the backlogs to that level	Complete
8. Perform on-going self-assessments to determine if the problem solving process, NOP-ER-3001 has been properly implemented during the previous period	Periodic through Cycle 14
9. Perform independent outside assessments of the effectiveness of Engineering corrective and improvement actions in the areas of modifications, System Engineering, corrective actions, and calculations	Periodic through Cycle 14
10. Implement electronic accessibility of design basis information and populate with 5 systems	Complete
11. Expand the role of the Engineering Assessment Board (EAB) to include the review of Engineering Root Causes and Apparent Causes and Engineering Calculations	Complete
12. Establish criteria and modify appropriate procedures to restrict the use of At-Risk Changes in the plant modification process	Complete

COMMITMENTS

DUE DATE

Engineering Improvement Initiative (Cont'd)

- | | |
|---|----------|
| 13. Re-institute the use of Quarterly System Health Reports and Design Basis Assessment Reports | Complete |
| 14. Assign a Program Owner for the Problem Solving Process | Complete |
| 15. Develop and implement actions necessary to improve the technical issues problem solving capabilities in the Engineering organization. | Complete |

7. Continuous Safety Culture Improvement Initiative

- | | |
|---|---|
| 1. Monitor Safety Culture on a monthly basis | Periodic through Cycle 14 |
| 2. Assess Safety Culture using the FENOC Business Practice | December 31, 2005 |
| 3. Perform a Safety Culture assessment utilizing an independent outside organization | Complete |
| 4. Provide SCWE training to Site employees who have not completed the SCWE portion of the Site Employee Orientation Manual | Complete |
| 5. Provide refresher training on SCWE and Safety Culture to Davis-Besse Supervisors and above | Complete |
| 6. NQA to perform two Safety Culture Assessments | 2004 Complete
4 th Quarter 2005 |
| 7. Employee Concerns Program group to perform two surveys of the Safety Conscious Work Environment | 2004 Complete
4 th Quarter 2005 |
| 8. Perform an effectiveness assessment of the corrective actions taken in response to the November 2003 SCWE survey results | Complete |

8. Procedure Improvement Initiative

- | | |
|---|---------------------------|
| 1. Perform Self-Assessments on procedure use and adherence | Periodic through Cycle 14 |
| 2. Review the Davis-Besse procedure change process to ensure alignment with FENOC standards for procedure preparation and revisions | Complete |
| 3. Provide training on procedure use and adherence | Complete |
| 4. Perform follow-up effectiveness reviews on procedure use and adherence | Complete |

COMMITMENTS

DUE DATE

9. Corrective Action Program Improvement Initiative

- | | |
|---|---------------------------|
| 1. Implement the Apparent Cause Improvement Plan: | |
| a. Strengthen procedural requirements for apparent cause evaluations, including analytical methods to be used | Complete |
| b. Corrective Action Review Board review of Apparent Cause Evaluations until standards are consistently met | Complete |
| c. Identify Apparent Cause Evaluators | Complete |
| d. Develop Training Program and Expectations and provide training to the Apparent Cause Evaluators
<i>(Initial Evaluator Classes and Additional Classes in 2004)</i> | Complete |
| e. Qualify the trained Apparent Cause Evaluators using the Systematic Approach to Training | Complete |
| f. On an interim basis, rotate team of apparent cause evaluators to Support Services | Complete |
| g. Company Nuclear Review Board (CNRB) review of selected Apparent Cause Evaluations | Periodic through Cycle 14 |
| 2. Establish the appropriate level of workload for Condition Report Evaluations and Corrective Actions and develop a plan to reduce the backlogs to those levels | Complete |
| 3. Perform a focused Self-Assessment of implementation of the Corrective Action Program using industry peers | Complete |
| 4. Reestablish the Corrective Action Program trending process | Complete |
| 5. Provide Apparent Cause training to Managers | Complete |

COMMITMENTS

DUE DATE

10. Internal and External Oversight Improvement Initiative

- | | |
|--|---------------------------|
| 1. Supplement quality oversight with off-site assistance to improve objectivity and ensure assessments are sufficiently critical | Complete |
| 2. Supplement management oversight with off-site assistance to improve objectivity and ensure assessments are sufficiently critical | Complete |
| 3. Focus more quality oversight on cross-functional activities and interfaces | Complete |
| 4. Review and revise the master assessment plan at all three FENOC sites | Complete |
| 5. Conduct an external assessment to evaluate the progress of organizational improvements in the areas of critical self-assessments and performance observations | Complete |
| 6. Utilize INPO Assist Visits to assess the effectiveness of Improvement Initiatives | Complete |
| 7. Perform Quality Oversight of Engineering using the Continuous Assessment Process | Periodic through Cycle 14 |
| 8. Conduct assessment activities of the Corrective Action Program to evaluate effectiveness of corrective actions taken to improve implementation and improve trend evaluation | Periodic through Cycle 14 |

CYCLE 14 OPERATIONAL IMPROVEMENT PLAN
REVISION 9 CHANGES

PI NUMBER	TITLE	CHANGE
I-08	Condition Report Self-Identified Rate	Change goal from $\geq 90\%$ of Condition Reports self-identified to $\geq 80\%$ of Condition Reports self-identified
M-04	Effectiveness of Safety Conscious Work Environment Review Team (SCWERT) in Avoiding Discrimination Claims – SCWERT Non-Concurrence Ratio	Change goal from 10% to 25%.
M-07	Talent Management and Personnel Development	Change title to Talent Management & Leadership/Personnel Development.
M-08	Leadership Development	Delete. Data incorporated into M-07
O-01.1	Field Activity Assessments: Field Observations	Delete.
Various		Update status to show completed actions

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CHANGES TO BARRIER ATTRIBUTE PERFORMANCE INDICATORS
OPERATIONAL IMPROVEMENT PLAN OPERATING CYCLE 14, REV. 9

PI NUMBER	TITLE	CHANGE
M-02	Satisfaction of Employees Using the Employee Concerns Program (ECP)	Change to a four-quarter rolling average.
M-03	NRC Allegation Ratio	Change to a four-quarter rolling average.
M-04.1	Effectiveness of Safety Conscious Work Environment Review Team (SCWERT) in Avoiding Discrimination Claims – SCWERT Non-Concurrence Ratio	Change to a four-quarter rolling average.
M-04.2	Effectiveness of Safety Conscious Work Environment Review Team (SCWERT) in Avoiding Discrimination Claims – NRC Retaliation Allegation Ratio	Change to a four-quarter rolling average.

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Enclosure

Davis-Besse Nuclear Power Station
Operational Improvement Plan
Operating Cycle 14
Revision 9
October 21, 2005

(34 pages to follow)



Davis-Besse Nuclear Power Station Operational Improvement Plan Operating Cycle 14

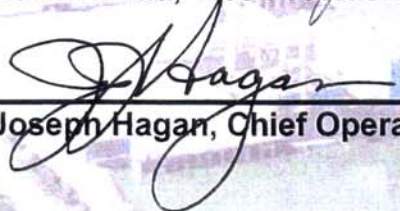
REVISION 9

October 21, 2005

Approvals:



Mark Bezilla, Vice President Davis-Besse



Joseph Hagan, Chief Operating Officer

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

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Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

Introduction

To ensure continued improvements and sustained performance in Nuclear Safety and Plant Operation at the Davis-Besse Nuclear Power Station, the Leadership Team has developed this Improvement Plan to focus on key improvement initiatives and safety barriers essential to safe restart from the Reactor Pressure Vessel Head degradation extended plant outage and into subsequent operating cycles. **This plan provides for a managed transition from the organizational and programmatic actions taken to support the Davis-Besse Return to Service Plan and Building Block Plans to that of normal plant operations and refueling outages.**

The initiatives discussed in this plan were derived from lessons learned during the extended plant outage which resulted from the significant Reactor Pressure Vessel Head degradation identified at the beginning of the 13th Refueling Outage. During the extended outage, numerous improvements were made in the areas of Safety Culture, Management, Human Performance, System Health and Programs as described in the Return to Service Plan and the Building Block Plans. However, additional improvements are required to achieve world class performance and to ensure that the safety barriers that failed to detect the significant RPV Head degradation are maintained to prevent a recurrence of an event in the future.

As described in the Return to Service Plan, the numerous root causes associated with the Reactor Pressure Vessel Head degradation could be grouped into the areas of Nuclear Safety Culture; Management/Personnel Development; Standards and Decision-making; Oversight and Assessments; and Programs/Corrective Actions/Procedure Compliance. Actions described in each of the Building Blocks were designed to address numerous significant improvements in each of those areas. This transition plan of Operational Improvements focuses on the four primary safety barriers of **Individual, Programs, Management, and Oversight** (as described in the following pages) to ensure improvements realized during the extended outage remain in place and are further built upon to improve performance in the future. This plan will ensure that the improvements made to Davis-Besse are “built to last”.

This plan will be used by the Davis-Besse Leadership Team on a monthly basis to monitor safety barrier attributes that would provide early detection of declining trends in performance and to focus on major initiatives to achieve operational excellence. This plan is a living document and will be periodically updated and revised to address completed actions and add new initiatives as determined and approved by the Senior Leadership Team.

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

Barriers To Ensure Nuclear Safety

The safety of nuclear power relies heavily on the “defense in depth” concept. Nuclear power plants are designed with robust systems and redundant back-up safety systems in the unlikely event of a failure. However, systems and equipment must still be operated, maintained and designed by people to ensure reliability and availability if called upon to perform an intended safety function. The first barrier to ensure safety is the **Individual**. The operator, maintenance technician, engineer and all the other support personnel play an integral role in monitoring plant status and maintaining systems and equipment in top-notch condition. Thus, ensuring that the individuals that support nuclear power plant operation are highly qualified, trained and motivated to do the best job possible is an essential barrier to ensure nuclear safety.

To guide the individual in performing their required job functions, numerous **Programs** have been put in place to address the operations, maintenance, design and licensing basis activities performed daily at the station. Programs are implemented by procedures and other written documents to ensure a consistent approach by the individual. Thus, programs are another essential barrier to ensure nuclear safety.

Management also plays a key role in nuclear safety. Management is responsible for providing the proper focus on priorities that ensure the plant is operated and maintained to high standards and expectations. Management is also responsible for creating a work environment that is conducive to a safety conscious work environment and strong safety culture, and to ensure there are adequate staffing levels of qualified and motivated individuals in every department. Management, therefore, is also considered one of the barriers essential to nuclear safety.

To ensure that the individual and management (using established programs and associated procedures) performs their duties to high standards and maintains the proper safety focus, **Oversight** organizations provide another barrier for nuclear safety. Oversight checks for adverse trends in performance and is independent of other pressures. Independent oversight, when properly used, can identify differences from industry norms for early detection of potential weaknesses developing in the safety barriers.

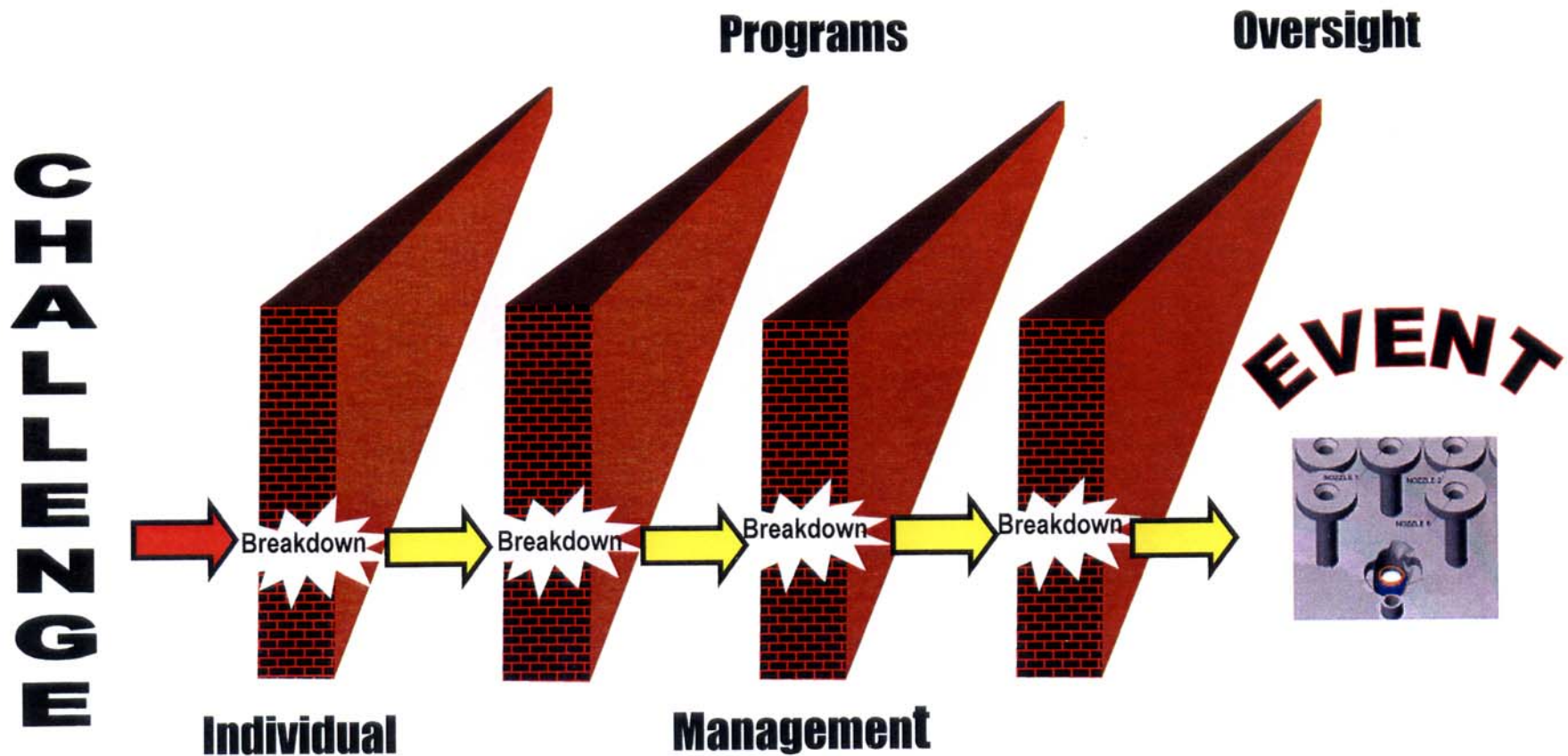
Together these four barriers work in conjunction to contribute to the safe operation of Davis-Besse.

Davis-Besse Nuclear Power Station

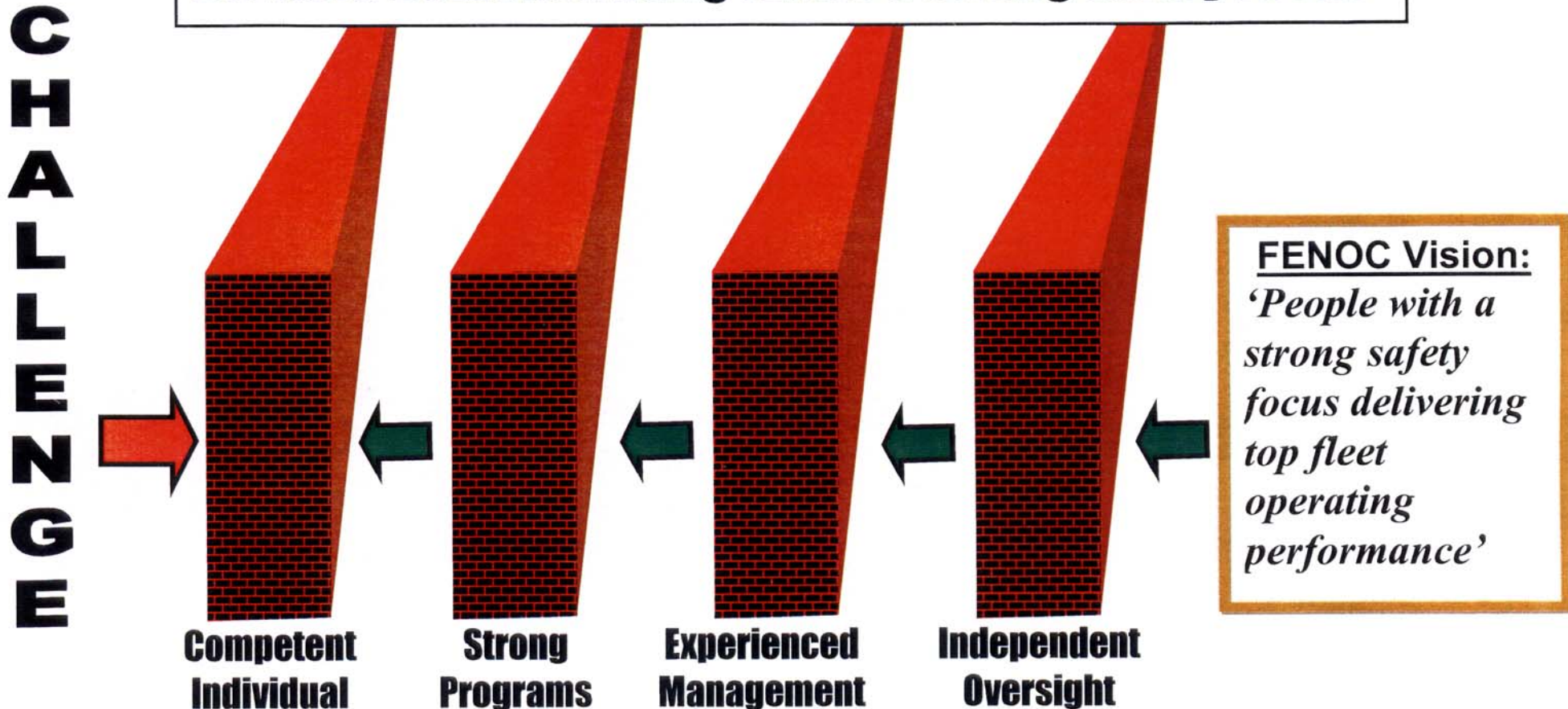
Operational Improvement Plan

Cycle 14

This illustration represents how the four safety barriers failed, allowing the degradation of the RPV Head to go undetected for several years and serves to anchor the lessons learned and corrective actions taken to prevent recurrence.



Barriers Demonstrating FENOC's Strong Safety Focus



Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

Davis-Besse Initiatives:

Based on lessons learned from the Reactor Pressure Vessel Head degradation and during the extended plant outage, a series of key initiatives have been developed by the Leadership Team to focus on opportunities for continued improved performance. These initiatives extend beyond those significant improvements already realized during the extended outage and achieved prior to restart. These initiatives will provide additional improvements to further strengthen each of the four barriers. Details for each initiative are provided in the following pages.

Davis-Besse Initiatives		Barriers Enhanced			
		Individual	Programs	Management	Oversight
Sponsor					
M. Bezilla	1. Organizational Effectiveness Improvement		X	X	
B. Allen	2. Operations Improvement	X	X	X	X
B. Allen	3. Maintenance Improvement	X	X	X	
B. Allen	4. Training Improvement	X	X	X	
B. Allen	5. Work Management Improvement	X	X	X	
S. Loehlein	6. Engineering Improvement	X	X	X	X
M. Bezilla	7. Continuous Safety Culture Improvement	X		X	X
M. Bezilla	8. Procedure Improvement	X	X		
M. Bezilla	9. Corrective Action Program Improvement	X	X	X	X
J. Rinckel	10. Internal and External Oversight Improvement			X	X

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

1. Organizational Effectiveness Improvement Initiative

DESIRED OUTCOME: *Improved Human Performance, Leadership and Team Alignment through Critical Self-assessments, Use of Operating Experience, Industry Benchmarking and Communications*

Sponsor: M. Bezilla

Key Actions	Owner	Completion
1. Improve individual and organizational performance through development and utilization of alignment tools at the Department/Section levels	M. Trump	Complete
2. Implement FENOC Business Practices for: a) Focused Self-Assessments b) Ongoing Self-Assessments c) Benchmarking d) Semi-Annual Collective Significance Self-Assessments (Included in Focused Self-Assessment Business Practice)	L. Dohrmann	Complete Complete Complete Complete
3. Directors and Managers to attend a Leadership Academy to improve management skills	D. Haskins	Complete
4. Provide formal Management Observation Skills Training	J. Reddington	Complete

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

1. Organizational Effectiveness Improvement Initiative continued

Sponsor: M. Bezilla

Key Actions	Owner	Completion
5. Enhance the Management Observation Program by ensuring personnel providing oversight monitoring are familiar with DBBP-OPS-0001, "Operations Expectations and Standards"	K. Fehr	Complete
6. Implement actions to improve trending of major plant evolutions utilizing the Management Observation Program to track performance and feedback	K. Fehr	Complete
7. Provide face-to-face communications training to all site supervisors and above	D. Haskins	Complete
8. Re-evaluate all Davis-Besse supervisors to assess competency for current positions	D. Haskins	4 th Qtr 2005
9. Conduct Supervisor and Manager Talent Management Talks	D. Haskins	Complete
10. Continue with the 4 Cs meetings, D-B Team Meetings, Town Hall Meetings in accordance with Davis-Besse Business Practices	M. Lark-Landis	through Cycle 14

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

2. Operations Improvement Initiative

DESIRED OUTCOME: *Establish the clear leadership role of Operations through improved Organizational Effectiveness and Alignment to the FENOC Processes*

Sponsor: B. Allen

Key Actions	Owner	Completion
1. Implement Operations Improvements:		
a. Initiate Operations Leadership Improvements	K. Ostrowski	Complete
b. Initiate the 5 year staffing plan	K. Ostrowski	Complete
c. Implement improvements to Operations work stations	D. Imlay	Complete
d. Implement common FENOC Operations work process tools	K Ostrowski	Complete
2. Improve Operator knowledge, skills and abilities through testing, training and mentoring	M. Trump	Complete

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

2. Operations Improvement Initiative continued

Sponsor: B. Allen

Key Actions	Owner	Completion
3. Implement the Operations Improvement Implementation Action Plan, including: a. Strengthening Operating Crews, including assessment of operators, training on procedure use, and improving command and control b. Strengthening Operating Procedures, including validation of key operating procedures and use of reverse pre-job briefs c. Strengthening Operations Management, including use of Operations Oversight Managers until no longer needed d. Strengthening Independent Oversight of Operations	K. Ostrowski	Complete
4. Strengthen Communications within Operations	K. Ostrowski	Complete
5. Benchmark Conduct of Operations	K. Ostrowski	Complete
6. Align Performance Indicators to Conduct of Operations	K. Ostrowski	Complete

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

3. Maintenance Improvement Initiative

DESIRED OUTCOME: *Improved Ownership and Materiel Condition of the Davis-Besse Nuclear Power Station*

Sponsor: B. Allen

Key Actions	Owner	Completion
1. Utilize post-job evaluations, operating experience, and lessons learned from rework activities to identify improvements in Maintenance training and standards	M. Stevens	Complete
2. Perform an assessment of Maintenance effectiveness in work planning, scheduling, and implementation of critical equipment outages to identify improvements	M. Stevens	Complete
3. Implement improvements of Maintenance Supervision through training and development	M. Stevens	Complete
4. Implement actions in the Maintenance individual commitment area to establish improved ownership and accountability of Plant materiel condition	M. Stevens	Complete

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

3. Maintenance Improvement Initiative continued

Sponsor: B. Allen

Key Actions	Owner	Completion
5. Perform testing of Maintenance staff knowledge, skills and abilities to identify improvement actions and incorporate into training	M. Trump	
a. Perform skill and knowledge testing to identify areas for improvement		Complete
b. Incorporate any identified training needs into training material		Complete

4. Training Improvement Initiative

DESIRED OUTCOME: *Improved Individual And Organizational Performance through Training*

Sponsor: B. Allen

Key Actions	Owner	Completion
1. Implement actions to improve individual and organizational performance and alignment by developing and providing training on design and configuration control to appropriate site staff	M. Trump	Complete
2. Establish engineering positional qualification requirements based on the standard FENOC Engineering Organization and complete qualification training for incumbent and new engineers	M. Trump	Complete

5. Work Management Improvement Initiative

DESIRED OUTCOME: *Provide for the effective and efficient cross-organizational utilization of resources in achieving a high standard of plant materiel condition by conducting the right work at the right time for the right reasons*

Sponsor: B. Allen

Key Actions	Owner	Completion
1. Common Process	W. Mugge	
a. Complete training and mentoring to support the effective transition into the FENOC Work Management Process		Complete
b. Resolve gaps in process implementation and station procedures		Complete
c. Perform quarterly assessments of Condition Reports and Work Week critiques to ensure opportunities for improvement are addressed		through Cycle 14
d. Implement Risk Management process to improve station knowledge and awareness		Complete
e. Monitor and improve Order quality		Complete

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

5. Work Management Improvement Initiative continued

Sponsor: B. Allen

Key Actions	Owner	Completion
2. Maintenance Backlog Reduction	W. Mugge	
a. Complete walk-down and validation of the Order backlog to ensure proper category, priority, consolidation and elimination of invalid orders		Complete
b. Complete Cycle Plan identifying equipment outages and providing the framework for addressing backlog Order priorities and results of the System Health Report		Complete
c. Develop performance indicators to monitor and manage Order backlog		Complete
3. Outage Performance		
a. Forced Outage Schedule template and readiness	W. Mugge	Complete
b. Mid-Cycle Outage Preparation	W. Bentley	Complete
c. Clarify expectations and improve contractor performance	C. Hawley	Complete
d. 14 th Refueling Outage Preparation	W. Bentley	2/28/06

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

6. Engineering Improvement Initiative

DESIRED OUTCOME: *Improved quality of Engineering products, increased access to Design Basis information, and continued improvement in Safety Margins of the Station*

Sponsor: S. Loehlein

Key Actions	Owner	Completion
1. Implement actions to improve Safety Margin: a. Determine the Safety Margin for the top 10 Risk Significant Systems and develop a plan to improve safety margins b. Electrical System coordination improvements c. Masonry/block wall re-analyses and design changes d. Service Water improvements	J. Grabnar	Complete
2. Perform additional Latent Issues Reviews	B. Boles	through Cycle 14
3. Implement the Design Calculation Improvement Plan	J. Grabnar	through Cycle 14
4. Enhance plant equipment performance through the FENOC Equipment Reliability Program	R Hovland	through Cycle 14
5. Develop and implement the plan to enhance System Engineering ownership of plant systems in support of Operations	B. Boles	Complete

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

6. Engineering Improvement Initiative continued

Sponsor: S. Loehlein

Key Actions	Owner	Completion
6. Schedule and conduct additional Program Compliance Reviews including: a. Qualification of Program Owners b. Development of Program Manuals c. Creation of Performance Indicators	R Hovland	Complete
7. Establish the appropriate level of workload for Engineering Change Requests and develop a plan to reduce and maintain the backlogs to that level	J. Grabnar	Complete
8. Perform on-going self-assessments to determine if the problem solving process, NOP-ER-3001 has been properly implemented during the previous period	R Hovland	through Cycle 14
9. Perform independent outside assessments of the effectiveness of Engineering corrective and improvement actions in the areas of modifications, System Engineering, corrective actions, and calculations	C. Price	through Cycle 14
10. Implement electronic accessibility of design basis information and populate with 5 systems	J. Grabnar	Complete

Davis-Besse Nuclear Power Station

Operational Improvement Plan

Cycle 14

6. Engineering Improvement Initiative continued

Sponsor: S. Loehlein

Key Actions	Owner	Completion
11. Expand the role of the Engineering Assessment Board (EAB) to include the review of Engineering Root Causes and Apparent Causes and Engineering Calculations	J. Powers	Complete
12. Establish criteria and modify appropriate procedures to restrict the use of At-Risk Changes in the plant modification process	J. Grabnar	Complete
13. Re-institute the use of Quarterly System Health Reports and Design Basis Assessment Reports	B. Boles J. Grabnar	Complete
14. Assign a Program Owner for the Problem Solving Process	B. Boles	Complete
15. Develop and implement actions necessary to improve the technical issues problem solving capabilities in the Engineering organization.	C. Hawley	Complete

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7. Continuous Safety Culture Improvement Initiative

DESIRED OUTCOME: *Demonstrate a continuously improving Safety Culture at the Davis-Besse Nuclear Power Station*

Sponsor: M. Bezilla

Key Actions	Owner	Completion
1. Monitor Safety Culture on a monthly basis	C. Price	through Cycle 14
2. Assess Safety Culture using the FENOC Business Practice	D. Haskins	4 th Qtr 2005
3. Perform a Safety Culture assessment utilizing an independent outside organization	C. Price	Complete
4. Provide SCWE training to Site employees who have not completed the SCWE portion of the Site Employee Orientation Manual	L. Griffith	Complete
5. Provide refresher training on SCWE and Safety Culture to Davis-Besse Supervisors and above	M. Trump	Complete
6. NQA to perform two Safety Culture Assessments	R. Hraby	2004 Complete 4 th Qtr 2005
7. Employee Concerns Program group to perform two surveys of the Safety Conscious Work Environment	R. Amidon	2004 Complete 4 th Qtr 2005
8. Perform an effectiveness assessment of the corrective actions taken in response to the November 2003 SCWE survey results	R. Hansen	Complete

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8. Procedure Improvement Initiative

DESIRED OUTCOME: *Improved procedure use and adherence and standardized procedure change process*

Sponsor: M. Bezilla

Key Actions	Owner	Completion
1. Perform Self-Assessments on procedure use and adherence	M. Trump	through Cycle 14
2. Review the Davis-Besse procedure change process to ensure alignment with FENOC standards for procedure preparation and revisions	L. Dohrmann	Complete
3. Provide training on procedure use and adherence	J. Reddington	Complete
4. Perform follow-up effectiveness reviews on procedure use and adherence	M. Trump	Complete

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9. Corrective Action Program Improvement Initiative

DESIRED OUTCOME: *Improved effectiveness and implementation of the Corrective Action Program demonstrated through improved Station performance*

Sponsor: M. Bezilla

Key Actions	Owner	Completion
1. Implement the Apparent Cause Improvement Plan:		
a. Strengthen procedural requirements for apparent cause evaluations, including analytical methods to be used	L. Dohrmann	Complete
b. Corrective Action Review Board review of Apparent Cause Evaluations until standards are consistently met	L. Dohrmann	Complete
c. Identify Apparent Cause Evaluators	Managers	Complete
d. Develop Training Program and Expectations and provide training to the Apparent Cause Evaluators (Initial Evaluator Classes and Additional Classes in 2004)	J. Reddington	Complete
e. Qualify the trained Apparent Cause Evaluators using the Systematic Approach to Training	J. Reddington	Complete
f. On an interim basis, rotate team of apparent cause evaluators to Support Services	L. Dohrmann	Complete
g. Company Nuclear Review Board (CNRB) review of selected Apparent Cause Evaluations	J. Rinckel	through Cycle 14

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9. Corrective Action Program Improvement Initiative continued

Sponsor: M. Bezilla

Key Actions	Owner	Completion
2. Establish the appropriate level of workload for Condition Report Evaluations and Corrective Actions and develop a plan to reduce the backlogs to those levels	L. Dohrmann	Complete
3. Perform a focused Self-Assessment of implementation of the Corrective Action Program using industry peers	C. Price	Complete
4. Reestablish the Corrective Action Program trending process	L. Dohrmann	Complete
5. Provide Apparent Cause training to Managers	L. Dohrmann	Complete

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10. Internal and External Oversight Improvement Initiative

DESIRED OUTCOME: *Oversight activities are provided to ensure improved Station performance and the integrity of the Safety Barriers are sustained at the highest levels*

Sponsor: R. Hansen

Key Actions	Owner	Completion
1. Supplement quality oversight with off-site assistance to improve objectivity and ensure assessments are sufficiently critical	S. Loehlein	Complete
2. Supplement management oversight with off-site assistance to improve objectivity and ensure assessments are sufficiently critical	K. Ostrowski	Complete
3. Focus more quality oversight on cross-functional activities and interfaces	S. Loehlein	Complete
4. Review and revise the master assessment plan at all three FENOC sites	S. Loehlein	Complete
5. Conduct an external assessment to evaluate the progress of organizational improvements in the areas of critical self-assessments and performance observations	L. Myers	Complete
6. Utilize INPO Assist Visits to assess the effectiveness of Improvement Initiatives	M. Bezilla	Complete

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10. Internal and External Oversight Improvement Initiative continued

Sponsor: R. Hansen

Key Actions	Owner	Completion
7. Perform Quality Oversight of Engineering using the Continuous Assessment Process	R. Hruby	through Cycle 14
8. Conduct assessment activities of the Corrective Action Program to evaluate effectiveness of corrective actions taken to improve implementation and improve trend evaluation	R. Hruby	through Cycle 14

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Safety Barrier Attributes and Goals

Safety Barrier attributes and goals have been identified within this plan to provide a focus on key parameters to assess and ensure that safety barriers are being maintained. These attributes, which are grouped by each of the four barriers, will be monitored monthly by the Davis-Besse Leadership Team.

Performance indicators contain the criteria for monitoring each attribute. Some attributes will be monitored by periodic assessments such as surveys or self-assessments to determine if the goal for that attribute is being met. Monitoring sources for the performance indicators referenced in the Barrier Attributes are identified in the table below:

<u>Key</u>	<u>Performance Indicator Monitoring Sources</u>
OIP	Operational Improvement Plan Performance Indicator Report
MPR	FENOC Monthly Performance Report
SHAR	SCWE Health Assessment Report

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Individual Barrier Attributes					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
I-01	Human Performance Success Days (Event Free Clock)	≥ 40 days on average	Trump	D-SPO-03	MPR
I-02	OSHA Recordable Injuries (Industrial Safety Performance)	≤ 4 OSHA Recordable Injuries per year	Trump	D-SPO-02	MPR
I-03	Radiation Protection Events	≤ 2 events in any 4 consecutive quarters	Harder	I-03	OIP
I-04	Individual Error Rate	≤ 0.36 individual errors per 10,000 hours	Trump	D-HP-01	MPR
I-05	Employee willingness to raise concerns	$\geq 90\%$ of individuals are willing to raise concerns to their supervisors or the Employee Concerns Program	Amidon	SCWE Annual Survey	OIP
I-06	Operator Work Arounds	Level 1: Level 1 Work Arounds goal in accordance with FENOC Monthly Performance Indicator AND Level 2: Provide Operations with reliable equipment and system controls to operate the station. Minimize Operations Level 2 Work Arounds to 11 and prioritize to be worked through the Work Management process.	Ostrowski	D-EMC-10 I-06.1	MPR
				I-06.2	OIP
I-07	Control Room Deficiencies	Control Room Deficiencies goal in accordance with FENOC Monthly Performance Indicator	Ostrowski	D-EMC-09	MPR

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<u>Individual Barrier Attributes</u>					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
I-08	Condition Report Self-Identified Rate	≥ 80% of Condition Reports are self-identified	Price	I-08	OIP
I-09	Risk Performance Indicator (indicator of Cross-functional teamwork)	<p>≥ 75 Risk Assessment Indicator</p> <p>The Risk Assessment Indicator assesses each unit's risk of achieving safe and reliable operation. This indicator accomplishes this by measuring elements related to the probability and consequence of station events. Examples of elements making up this indicator include Probabilistic Safety Assessment, Aggregate System Health, Schedule Adherence, Activities Resulting in Reduced Trip-Logic, Schedule Stability, Scrams, Derates, Unplanned entry into Tech Specs, Entry into Abnormal Procedures</p>	Ostrowski	D-SPO-01	MPR
I-10	Condition Report SRO Review (SRO reviews for Operability are performed in a timely manner)	≥ 95% of SRO review required Condition Reports were reviewed for operability within 24 hours	Ostrowski	I-10	OIP
I-11	Employee willingness to use the Corrective Action Program	≤ 5% of individuals are not willing to use the Corrective Action Program	Amidon	SCWE Survey and Annual Safety Culture Assessment	OIP

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Individual Barrier Attributes					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
I-12	Worker confidence in raising safety concerns	> 90% of workers believe they can raise nuclear safety or quality concerns without fear of retaliation	Amidon	SCWE/NQA Surveys	OIP
I-13	Training Programs meet industry standards and effectively improve station performance as measured by NOBP-TR-1501	≥ 2.5 Training Program Performance Indicator	Trump	I-13	OIP
I-14	Licensed Operator Requalification Training	≥ 95% pass rate in the Licensed Operator Requalification Training Program	Trump	I-14	OIP

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<u>Programs</u> Barrier Attributes					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
P-01	Corrective Action Program (Effectiveness of Corrective Action Program)	≥ 8 Corrective Action Program Index Rating	Price	D-SPO-05	MPR
P-02	Condition Report (CR) category accuracy	$\geq 90\%$ CR category accuracy rate	Price	P-02	OIP
P-03	Apparent Cause evaluation quality	$\geq 90\%$ acceptance rate of Apparent Cause evaluations (as determined by the CARB)	Price	P-03	OIP
P-04	Maintenance Rule System Reliability	≥ 0.987 Reliability	Hovland	P-04	OIP
P-05	Number of Maintenance Rule (a)(1) Systems	No repeat Maintenance Rule (a)(1) systems within the operating cycle	Hovland	P-05	OIP
P-06	Program and Process Error Rate	≤ 0.36 Program and Process Errors per 10,000 hours worked	Trump	D-HP-02	MPR
P-07	Maintenance Rework	$\leq 1.0\%$ rework	Dominy	Maintenance Rework PI	OIP
P-08	Number of late Preventative Maintenance Activities	0 PMs past their late or defer to date <u>AND</u> $< 10\%$ of PMs closed beyond 60% of the allowed grace period	Mugge	P-08	OIP

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<u>Management Barrier Attributes</u>					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
M-01	The Quality of Engineering Products	≤ 1.0 score based on a (as measured by the Engineering Assessment Board)	Grabnar	M-01	OIP
M-02	Satisfaction of employees using the Employee Concerns Program (ECP)	$> 75\%$ of employees that use the Employee Concerns Program report being satisfied with the process	Amidon	SCWE 3-4	SHAR
M-03	NRC Allegation Ratio	≤ 2 times the industry average of NRC allegations	Amidon	SCWE 1-2	SHAR
M-04	Effectiveness of Safety Conscious Work Environment Review Team (SCWERT) in avoiding discrimination claims	$< 25\%$ SCWERT Non-Concurrence Ratio <u>AND</u> ≤ 2 times the industry average of NRC retaliation allegations	Schrauder	SCWE 4-5	SHAR
				SCWE 1-3	SHAR
M-05	Management Field Observations are self critical	$> 80\%$ of the management field observations performed are self-critical	D. Haskins	Annual Safety Culture Assessment, NQA Field Observations and Management Observations	OIP

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Management Barrier Attributes					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
M-06	Effectiveness of Management and Supervisors	Managers and supervisors are generally effective with a few exceptions	Price	XD-PDE-05 (Management Commitment Area Only)	MPR
M-07	Talent Management and Leadership/Personnel Development	Goal in accordance with FENOC Performance Indicator	D. Haskins	F-PDE-01 (Semi-Annual)	MPR
M-08	Leadership Development (Deleted. Incorporated into PI M-07)	N/A	D. Haskins	F-PDE-01	MPR
M-09	Reactivity Management	≤ 1 Level 2 Reactivity Management Event per year <u>AND</u> 0 Level 1 Reactivity Management Events per year.	Ostrowski	D-SPO-10	MPR
M-10	Fuel Reliability	Zero fuel defects	Wilson	D-SPO-07	MPR
M-11	Maintenance Order Backlog	<u>Online:</u> < 50 Corrective Maintenance Orders	Mugge	M-11.1	OIP
		<u>AND</u> < 450 Elective Maintenance Orders	Mugge	M-11.2	OIP
		<u>Outage</u> (prior to the startup from 14RFO): < 250 Corrective/Elective Maintenance Orders	Bentley	M-11.3	OIP

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<u>Management</u> Barrier Attributes					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
M-12	Number of Temporary Modifications	≤ 5 during the Operating Cycle <u>And</u> 0 related to equipment and design deficiencies after restart from major outages	Hovland	M-12	OIP

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<u>Oversight Barrier Attributes</u>					
Item	Attribute	Goal	Owner	PI Reference	Monitoring Source
O-01	Field Activity Assessments	Completion of Primary Elements: Deferral of ≤ 1 Primary Element monthly	Hruby	O-01	OIP
O-02	Responsiveness to QA Identified Issues	Line organization response to Davis-Besse Oversight-initiated Condition Reports is within 90% - 110% of the average time required for the line organization to respond to all Condition Reports.	Hruby	DB-02	OIP
O-03	Condition Report NQA Review Timeliness	100% of Condition Report Investigations reviewed by NQA are accepted or rejected within 14 days after the investigation was complete	Hruby	DB-03	OIP
O-04	Corrective Action NQA Verification Timeliness	100% of Corrective Actions verified or rejected by NQA within 30 days	Hruby	DB-04	OIP
O-05	Timeliness of NQA Audit Report Issuance	≤ 25 working days from the end of the quarter	Hruby	DB-05	OIP
O-06	Use of Industry Peer Support	100% utilization of the scheduled INPO Assist Visits for 2004	Donnellon	Semi-Annual Assessment	OIP