

# *Davis-Besse Nuclear Power Station*



Return to Service Plan Update

September 17, 2002

**FENOC**

# Introduction



*Lew Myers*  
*FENOC Chief Operating Officer*



## Desired Outcomes

- Demonstrate that Davis-Besse is making progress toward restart.
- Discuss issues and our resolve to do the job correctly.
- Discuss the major restart milestones and the status of the Integrated Schedule.
- Discuss status of Technical Root Cause.
- Provide status of several Building Blocks.
- Demonstrate progress of activities through discussion of our Performance Indicators.
- Discuss our Restart Test Plan.

# Milestones and Scheduled Activities



***Mike Stevens***  
***Director - Work Management***

# Major Milestones

## Major Restart Milestones

- Restore the Containment Vessel and Shield Building
- System Health Readiness Reviews
- System Health Latent Issues Reviews
- FENOC Decision Making procedure implemented
- Containment Extent of Condition Inspections and Evaluations
- Regulatory Compliance Program implemented
- Complete Program Reviews
- Conduct of Operations effectively implemented

# Major Milestones

## Major Restart Milestones

- Core Reload (October 30)
- Corrective Actions for Program and Systems Reviews implemented
- New Reactor Vessel Head on Reactor
- Enter Mode 5 (November 3)
- Reactor Coolant System Filled and Vented
- Management Restart Readiness Review
- Enter Mode 4 (November 19)

# Major Milestones

## Major Restart Milestones

- Enter Mode 3
- Full Pressure Containment Inspections
- Restart Overview Panel recommends restart
- NRC Approval for restart (November 18)
- Enter Mode 2 (December 4)
- Enter Mode 1
- Final Synchronization to Grid
- 100 % Power (December 7)

# Major Activities

## NRC Restart Checklist Items:

- Adequacy of Root Cause Determinations
- Adequacy of Safety Significant Structures, Systems, and Components
- Adequacy of Safety Significant Programs
- Adequacy of Organizational Effectiveness and Human Performance
- Readiness for Restart
- Licensing Issue Resolution
- Confirmatory Action Letter Resolution



# Major Activities

## Current Management Work Activities:

- Reactor Coolant System Hot Leg Thermowell
- Containment Emergency Sump
- Containment Coatings
- Safety System Design Performance Capability
  - Service Water System
  - High Pressure Injection System
  - 4160V Electrical Distribution System
- Condenser Coatings
- Emergency Diesel Generator Air Start

# Major Activities

## Current Management Work Activities:

- Feedwater Heater 1-6
- Reactor Coolant Pumps
- Polar Crane Reliability upgrades
- Reactor Cavity Permanent Seal
- Decay Heat Valve Pit
- Operator Work Arounds
- Temporary Modifications

# Status of Technical Root Cause

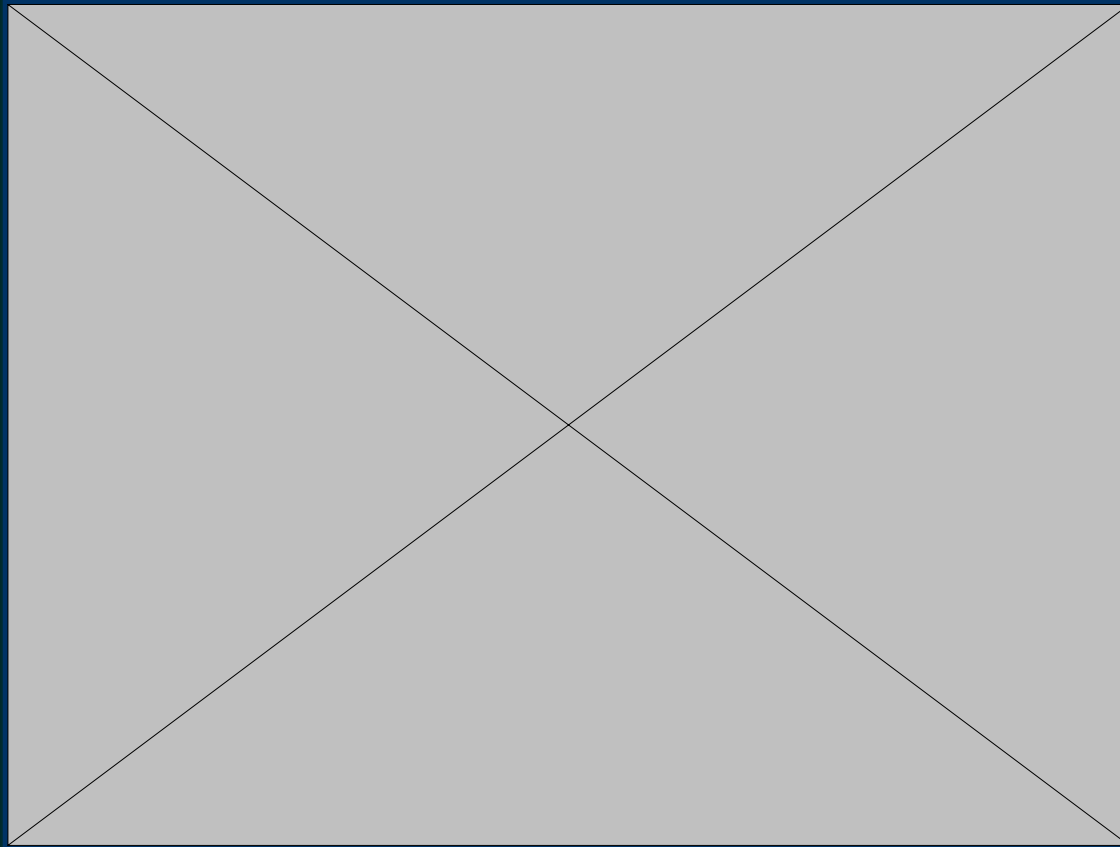


*Jim Powers*

*Director -- Technical Services*

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# Status of Technical Root Cause



# Status of Technical Root Cause

## Analysis Findings:

- A series of surface cracks found in lab
- Appears to be approximately 2-inches at weld pass
- Does not extend through the cladding
- Clad found thinner in lab measurements

# Reactor Head Restoration



***Bob Schrauder***  
***Director -- Support Services***

# Reactor Head Resolution Plan

## Replacement Head Activities

- Old head is removed and in storage
- New head is inside Containment and on its stand
- Service Structure ready for installation
- Containment Restoration underway

# Reactor Head Resolution Plan

## Difficulties Addressed

- Work delayed due to Polar Crane upgrades
- Stopped work while restoring containment to resolve work practice and quality issues
  - Work completed was not impacted
  - Recovery Plan approved and work was allowed to proceed



New Reactor Head

Old Reactor Head



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## New Head Moved into Containment



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## New Head on Stand in Containment



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**Before Sponge  
Jet-Blasting and Painting**



**After Sponge  
Jet-Blasting and Painting**

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# Pull Test



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# Containment and System Health



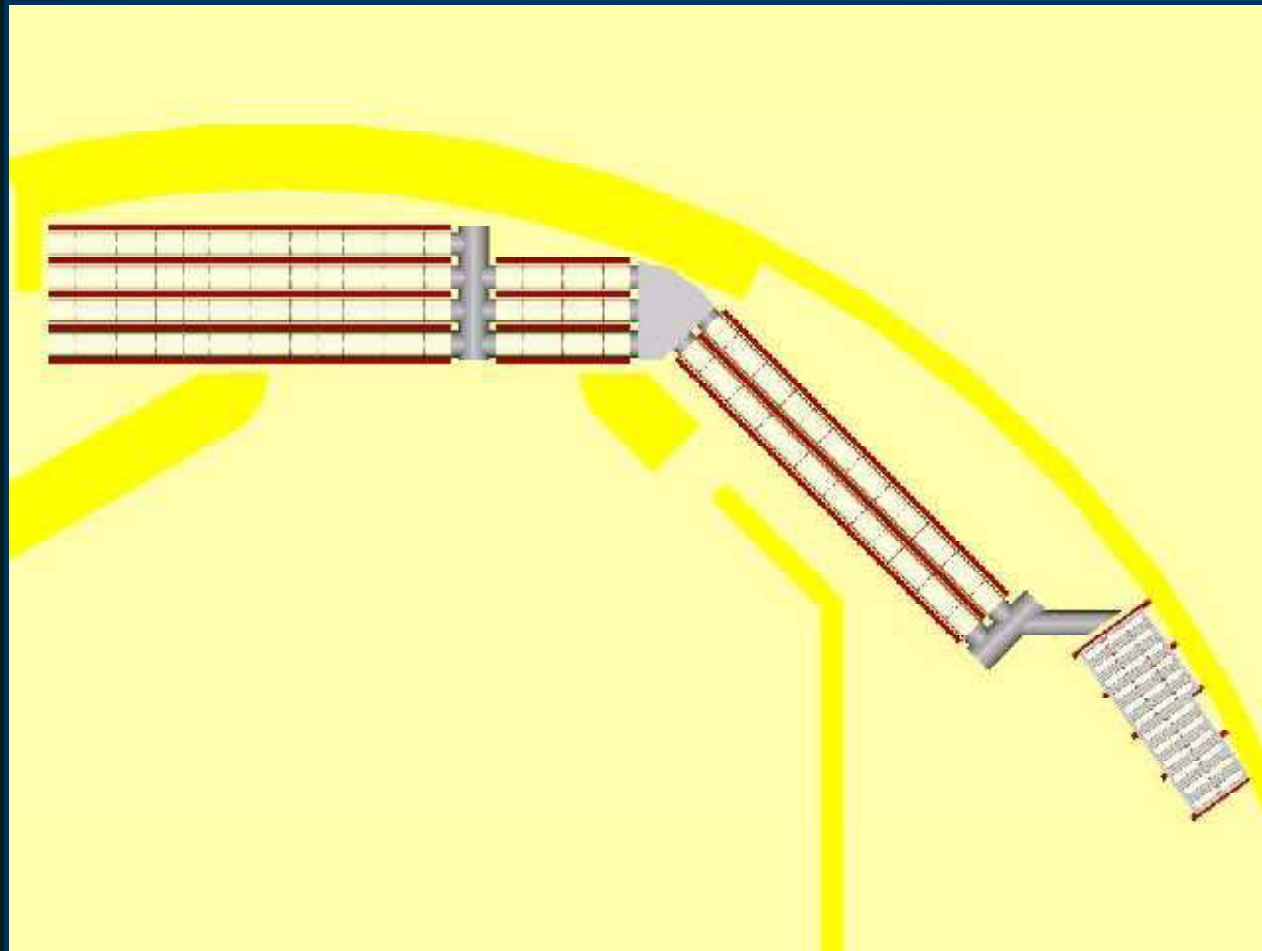
*Randy Fast*  
*Plant Manager*  
*Technical*  
**FENOC**  
*Services*

*Jim Powers*  
*Director -*

# Containment Health Plan

- **Inspections in progress**
  - No significant issues found in Containment
  - Most issues are minor maintenance
- **Containment Sump**
  - Gaining margins for safety and operational excellence
  - Will put Davis-Besse on the leading edge of the industry Pressurized Water Reactors
- **Containment Coatings Walkdowns complete**
- **Insulation Removal complete**

## New Containment Sump



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# System Health Plan

- **System Review Walkdowns complete**
- **31 System Health Reviews are on-going**
  - 500 Condition Reports initiated related to System Health Reviews as items requiring evaluation prior to restart
  - Past corrective actions reviewed
  - Low threshold for issues to be identified
  - 5 System Reviews completed by Responsible System Engineers
    - 4 reports presented to Engineering Assessment Board
      - 2 reviews approved; 3 scheduled to be presented