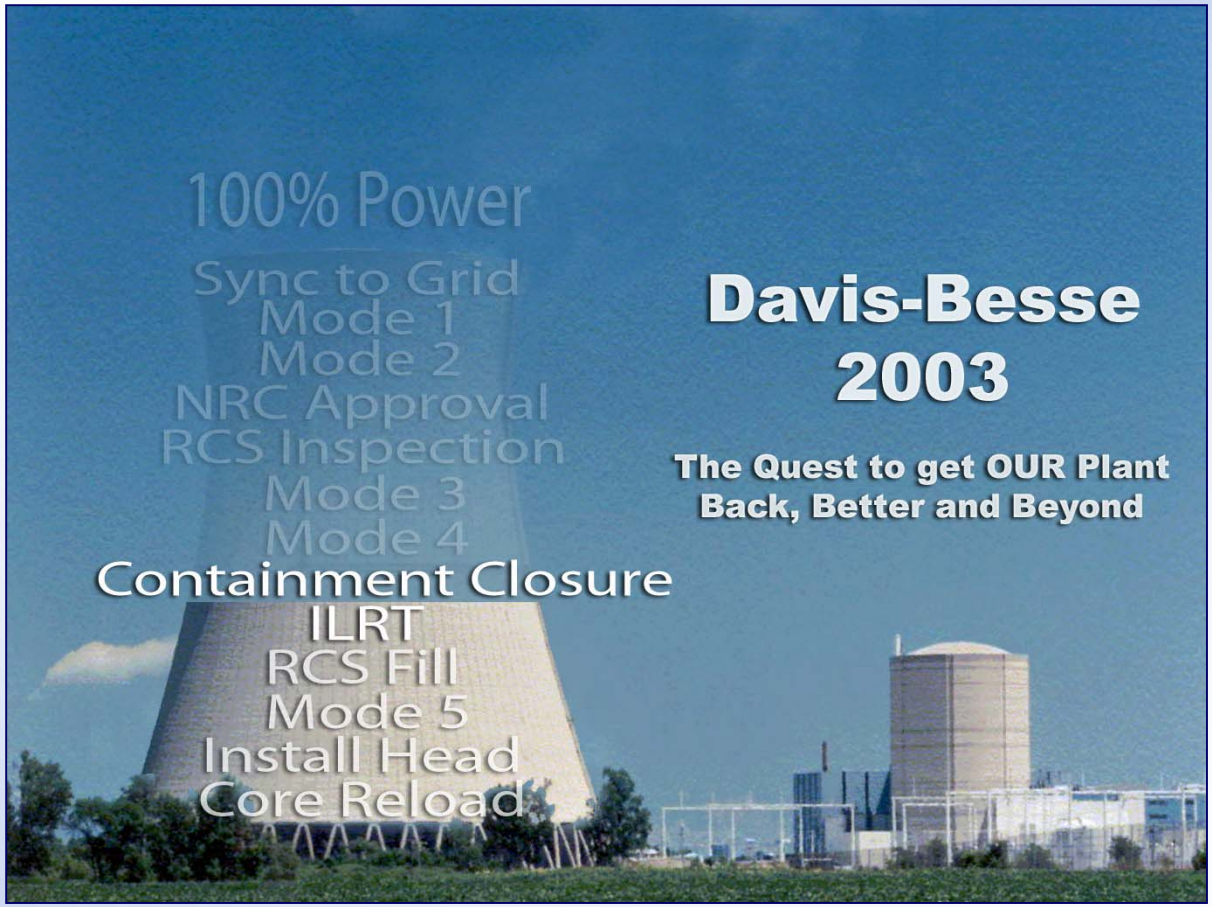
Davis-Besse Nuclear Power Station



IMC 0350 Meeting

Desired Outcome

- Provide an Update on Plant Performance and Management & Human Performance Progress Since the Last Meeting
- Provide Information Concerning Decision on the High Pressure Injection Pump
- Provide an Update on the Quality Oversight Perspective
- Provide Status on Several Engineering Design Issues
- Status our Overall Schedule and Performance Indicators

Lew Myers
FENOC Chief Operating Officer

Meeting Agenda

Pressure Test Results; Containment Closure.....**Mark Bezilla**

Management & Human Performance Plan Update.....**Lew Myers**

Electrical Distribution; SFAS Relays.....**Jim Powers**

HPI Pump Modification; Corrective Action Program Performance.....**Bob Schrauder**

Quality Assessment Activity.....**Steve Loehlein**

Remaining Issues Focus.....**Mike Ross**

Schedule Milestones.....**Mike Stevens**

Restart Action Performance.....**Clark Price**

Reactor Coolant System Pressure Tests
and
Containment Closure

Mark Bezilla
Vice President/Plant Manager

Reactor Coolant System Pressure Tests and Containment Closure

Desired Outcome

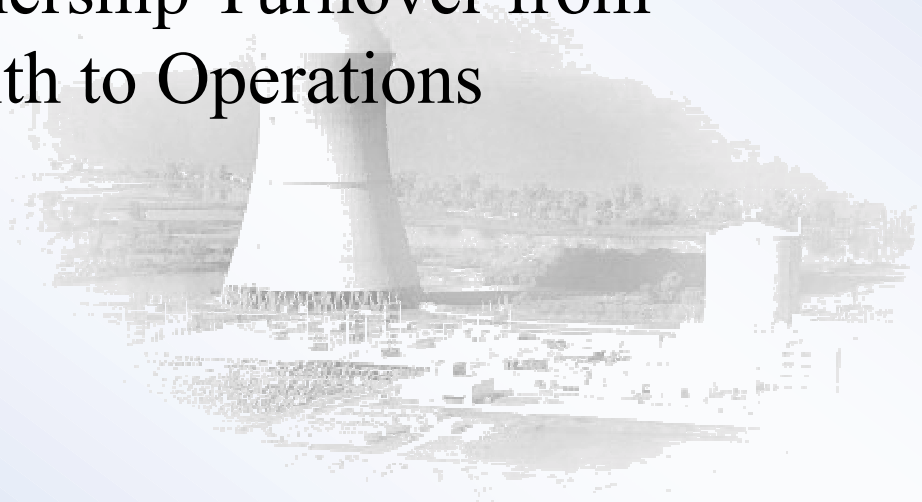
- Demonstrate increased confidence in the Reactor Coolant System and Support System
- Provide an update on Containment Activities

Reactor Coolant System Pressure Tests

- Completed 50 psig Leak Test - May 6, 2003
- Completed 250 psig Leak Test - May 25, 2003
- Accomplishments:
  - Determined that we could only "heat up" the Reactor Coolant System (RCS) due to decay heat, to <140 degrees
  - Placed Makeup and Purification System in service
  - Verified Pressurizer Heaters and spray functions
  - Ran each Reactor Coolant Pump
  - Gained confidence in the performance of the RCS and support systems

Containment Closure

- Containment Health Actions
- Containment Work
- Containment Closure
- Containment Ownership Turnover from Containment Health to Operations



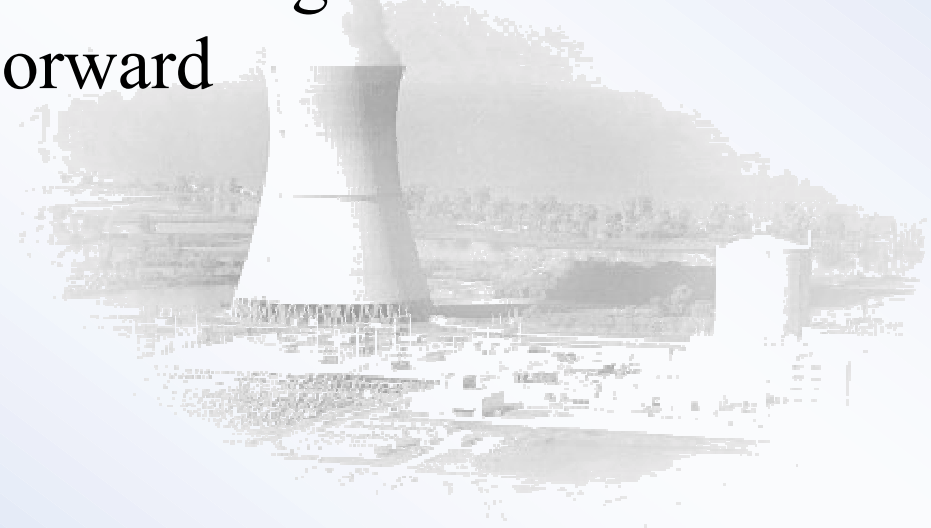
Management & Human Performance Plan Update

Lew Myers
FENOC Chief Operating Officer

Management & Human Performance Plan Update

Desired Outcome

- Demonstrate Strong Actions Taken to Date to Address Management and Human Performance
- Demonstrate Plan for Site Alignment and Leadership Going Forward



Management & Human Performance Plan Update

Actions to Date

- FENOC Corporate Organization Changes
- Davis-Besse Management Changes
- Independent Quality Assessment Organization
- Established and Communicated Standards
- Added/Enhanced Internal Oversight Groups
  - Engineering Assessment Board
  - Project Review Committee
  - Corrective Action Review Board
  - Management Review Board

Management & Human Performance Plan Update

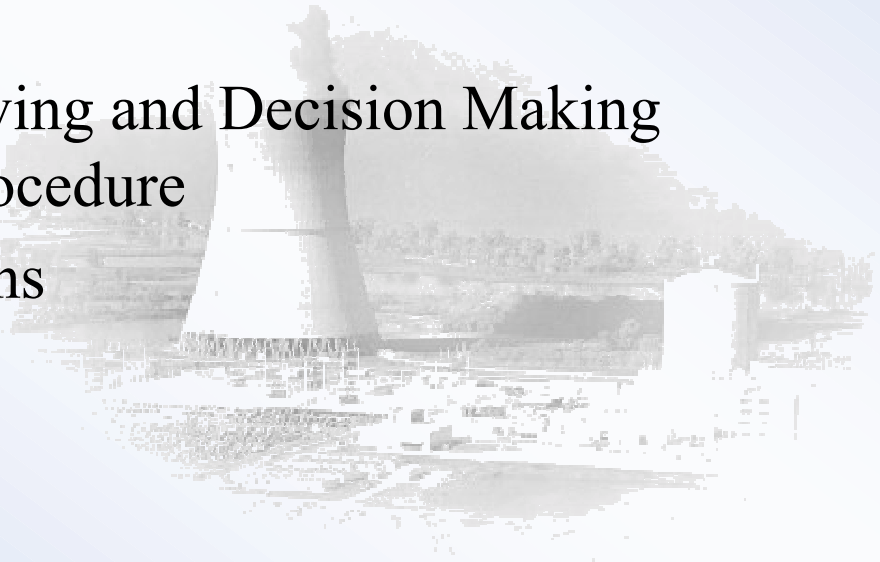
Actions to Date (continued)

- Added/Enhanced External Oversight Groups
  - Restart Overview Panel, Company Nuclear Review Board
- Improved Corrective Action Program and Oversight
- Management Observation Program
- All-hands Case Study Training
- Leadership Team Training

Management & Human Performance Plan Update

Actions to Date (continued)

- Employee Concerns Program Improvements
- Increased Technical Rigor
  - Calculation Program
  - FENOC Problem Solving and Decision Making Nuclear Operating Procedure
  - Operability Evaluations



Management & Human Performance Plan Update

Actions to Date (continued)

- Initiated Several Employee Communication Mechanisms
  - 4-Cs, Town Hall & All-hands meetings
- Section Specific Improvement Initiatives
- Developed Performance Indicators for Monitoring Performance

Management & Human Performance Plan Update

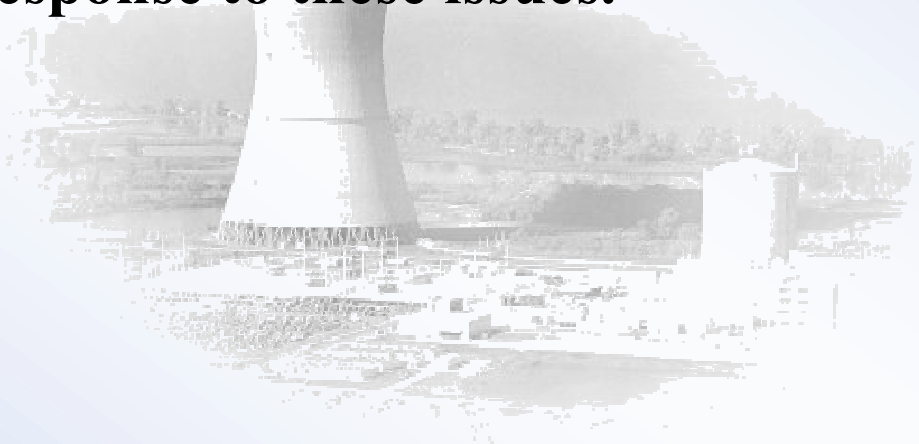
FENOC Definition
Safety Culture

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

Management & Human Performance Plan Update

FENOC Definition
Safety Conscious Work Environment

"That part of a Safety Culture addressing employee willingness to raise issues and management's response to these issues."



Management & Human Performance Plan Update

Site Integration Plan: May-December 2003

Timeline	Site Alignment and Leadership Development Interventions			
May – July	Response to Haber Report Interviews with SMT members and Managers Transition / Restart Plan Work Management Safety-Focus Process	Development Plans for Directors and Managers -- completed and approved Exelon Benchmark Management Observation Prog. Improvement Rollout Focus on Safety as a Leadership Team	3–Day SMT Intervention (Haber Report Review) 3–Day Intervention w/Mgrs 360° Feedback (SMT and Mgrs) Fill Open Supv. Positions Form Design Team for Cross-functional 1-day all-site trg	One-on-One Coaching Starts with SMT Members and Managers Facilitative Leadership Training? SCWE Training Cross-functional 1 day all-site training day
August – September	1-2 Day Intervention with both SMT and Managers All-Leadership Session - Supvs.↑ Bi-monthly FENOC internal Safety Culture Tool -- format to use post restart	Assessment Process for internalizing capabilities to assess supervisors Form Cross-Functional Design Team for 2-Day All-Site Large Scale Meeting	1 – Day SMT Follow Up Intervention 1 – Day Managers Follow Up Intervention Reinstate MRM, Business Plan, Performance Indicators	2 – Day All Site Large Scale Meeting (Vision Map?) Leadership Academy for SMT and Managers (Pilot?) Long-term Safety Culture Improvement Plan
October - December	1 – Day SMT Follow Up Intervention 1–Day Managers Follow Up Intervention	SCWE – 6 month follow-up survey QA focused-assessment of safety Culture	All Leadership Session – Supvs. ↑ Bi-monthly Form Cross-Functional Design Team for 1-Day All-Site Large Scale Meeting	1–Day All Site Large Scale Meeting

Management & Human Performance Plan Update

Upcoming Safety Culture Actions

- Improve the Work Management Safety Oversight Process
- Facilitated Site Alignment Activities
  - Leadership development and coaching
  - Department/section activities
  - All-site meetings
- Site Safety Conscious Work Environment Training
  - Prior to Mode 2 - during all-site training day

Management & Human Performance Plan Update

Upcoming Safety Culture Actions (continued)

- Focused Organizational Development Activities
  - Engineering
  - Maintenance
- Continued Employee Communications
  - Reinstate weekly manager's meeting
  - Initiate monthly department/section meetings
  - Continue monthly site meetings
  - Conduct weekly Senior Management Team strategy meetings

Management & Human Performance Plan Update

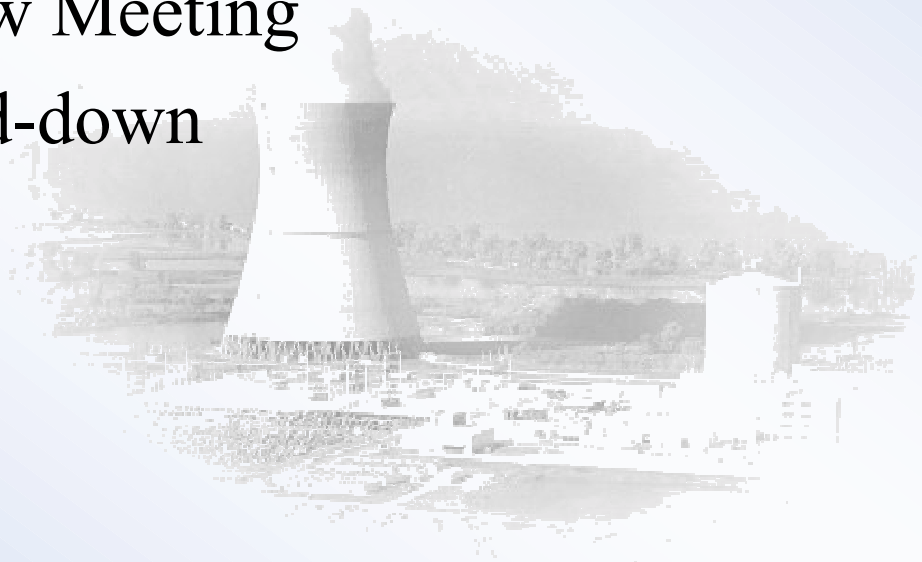
Safety Culture Monitoring

- Safety Conscious Work Environment Surveys
  - 3rd quarter 2003, then annually for 2 years
- Internal Quality Assurance Assessments
  - 4th quarter 2003, then annually for 2 years
- FENOC Internal Safety Culture Assessment
  - Prior to Mode 4 (Restart Readiness)
  - Prior to Mode 2 (Restart Readiness)
  - Prior to restart from subsequent outages
  - FENOC going-forward process

Management & Human Performance Plan Update

Other Activities

- Create a New Vision Map
- Align Station Business Plan Activities/Incorporate into Monthly Review Meeting
- "Future State" Stand-down



Electrical Distribution
and
Safety Features Actuation System Relays

Jim Powers
Director - Engineering

Electrical Distribution

Emergency Diesel Generator (EDG) Issues/Resolution

- Completed
  - Operations accepted Operability Evaluation on May 15
  - EDGs operable for all Modes
- Plant Start-up
  - Revise EDG Steady State Loading Calculation
  - Revise EDG Transient Loading Calculation
  - Prepare and issue USAR change; in draft
  - Define acceptance criteria for EDG voltage and frequency response
- Post-restart
  - Evaluate actions to improve EDG voltage and frequency response during Safety Features Actuation System load sequencing

Electrical Distribution

AC System Issues/Resolution

- First Mode 4
  - Prepare Electrical Transient Analysis Program (ETAP) calculation
  - Complete Evaluation Impacts of plant equipment
  - Complete independent industry team review of ETAP analysis
  - Evaluate conditions with unusual lineups to determine actions necessary going forward

Safety Features Actuation System Relays

- Originally Characterized as an Obsolescence Issue
  - Supplier stopped manufacturing replacements
- Reviews Found the Predominant Reason for Replacement was Coil Related
  - Replacements were random with respect to age
- Testing of Installed Relays has been Conducted
  - Outliers were removed and will be replaced
  - Relay population will gain improved reliability
- Action Plan has been approved
  - Obtain replacement relays from another utility

Safety Features Actuation System Relays

- Technical Evaluation (TE) is in Progress
  - Industry experts are reviewing maintenance history
    - Average replacement rate has been at relatively the same level of 2% per year for about the last 20 years
  - Temperature related aging does not appear to be an issue; further tests are under way to confirm
  - Relay material condition is being assessed to further confirm suitability to function for another fuel cycle
  - Independent review of TE will be conducted
- Conclusion
  - Operability evaluation will contain technical evaluation and confirm operability
    - Confirm that relays are acceptable for operation through the next operating cycle

High Pressure Injection Pump Modification
and
Corrective Action Program Performance

Bob Schrauder
Director -Support Services

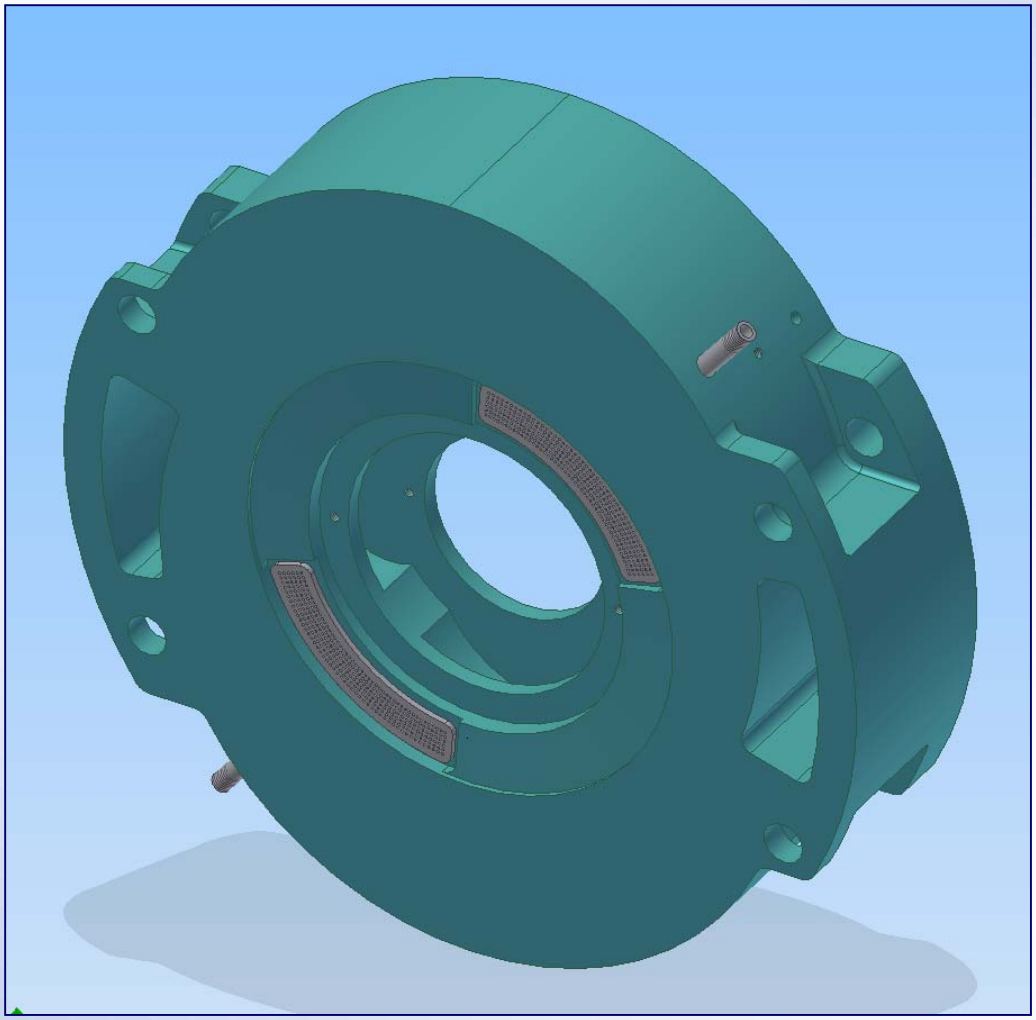
High Pressure Injection Pump Modification

- Background
  - Identified an issue that fine debris could impact the existing internal pump clearances
- Selected Approach
  - Modify the existing pump to add internal strainer to prevent debris from entering hydrostatic bearing
  - This will allow the pumps to perform all design functions without replacement
- Project Milestones
  - Strainer design and testing
  - Pump performance validation
  - Field implementation

High Pressure Injection Pump Modification

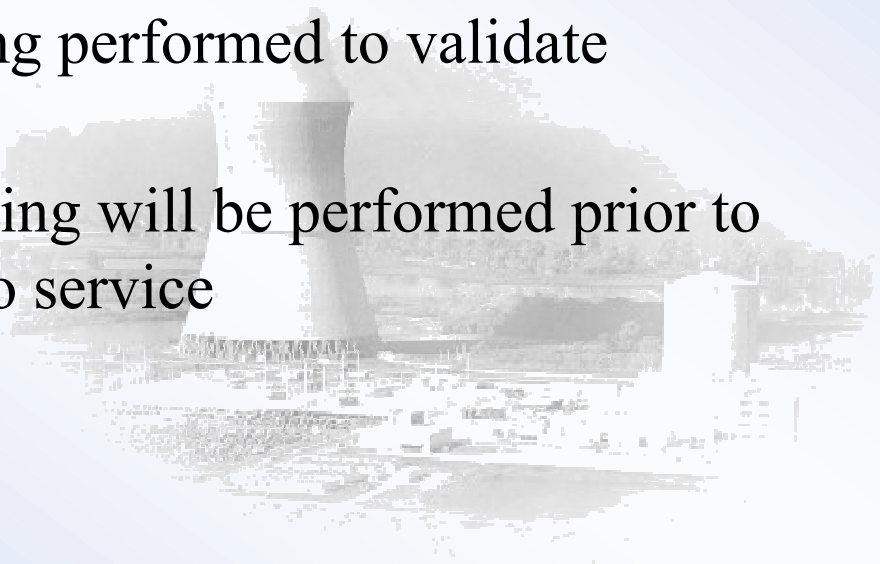
- Strainer Design and Testing
  - Strainer allows water to pass through and supply the hydrostatic bearing and seal
    - flushes strainer surface
  - Relocate ports that supply water to the hydrostatic bearing
    - supported by testing performed by pump manufacturer, Pump Guinard of France
    - reduce debris concentration at strainer
  - MPR Associates performing design work
    - mock-up testing at Wyle Labs to verify performance

High Pressure Injection Pump Modification



High Pressure Injection Pump Modification

- Pump Performance Validation
  - Rotordynamics analysis performed to predict satisfactory pump operation
    - includes worn condition after debris service
  - In-plant testing is being performed to validate rotordynamics model
  - Post-modification testing will be performed prior to returning the pumps to service



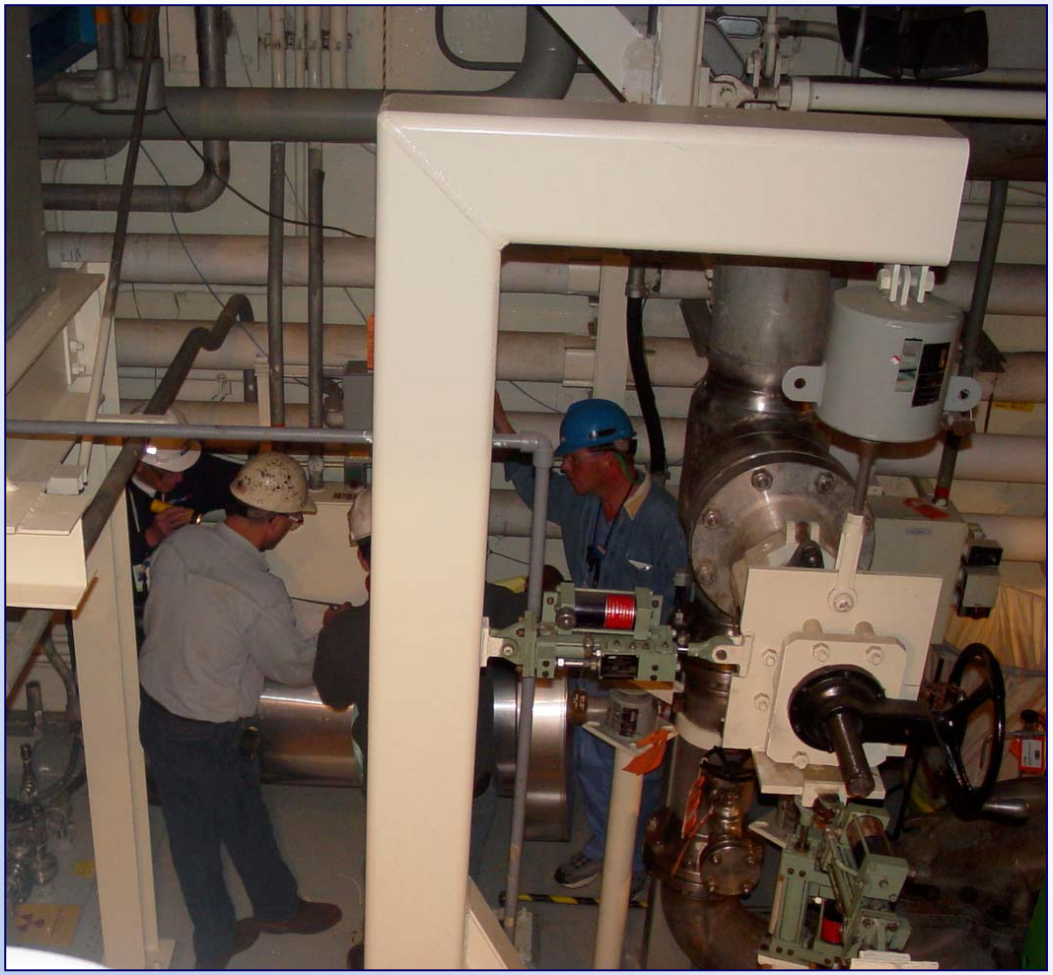
High Pressure Injection Pump Modification

- Field Implementation
  - Both pumps must be removed; each weighs 6,000 pounds
  - Removal of HPI pump 2 requires detailed planning due to its location in the Emergency Core Cooling Pump Room
  - A team involving six different craft disciplines will be used to remove the pumps and interference
  - Design and Plant Engineering are key groups involved with the removal plans

High Pressure Injection Pump Modification

A full scale pump mock-up was used to determine rigging needs and pathway

High Pressure Injection Pump Modification

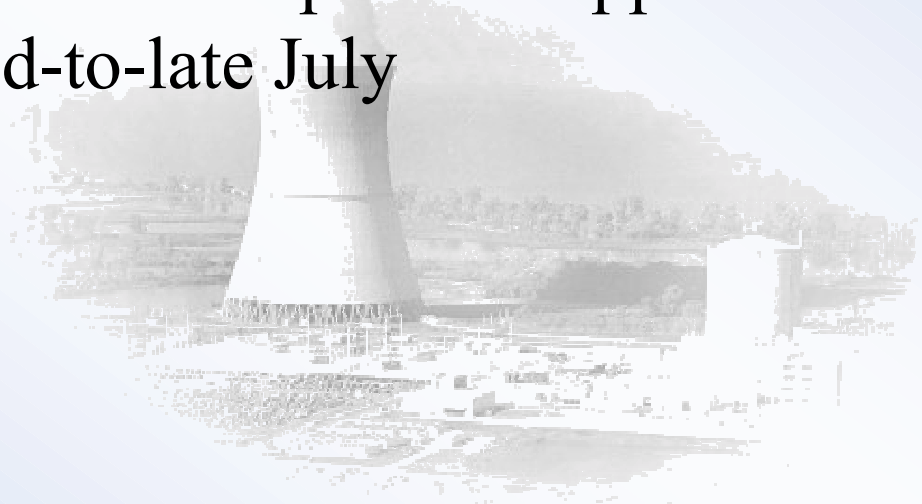


Rigging needs determined through the use of a full scale HPI pump mock-up

High Pressure Injection Pump Modification

Summary

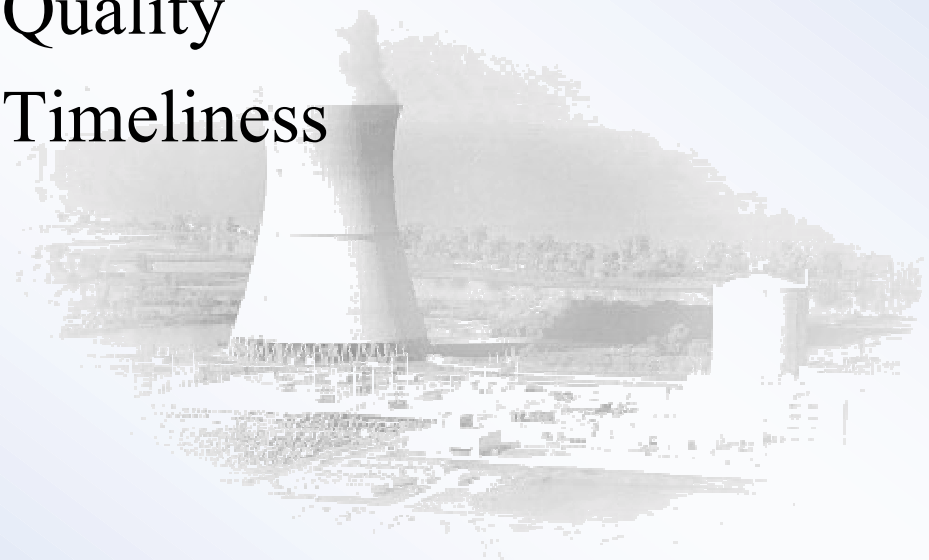
- Implementation of this Modification will Resolve the Debris Issue
- Current Schedule shows completion supports Pressure Test in mid-to-late July



Corrective Action Program

Corrective Action Program Review Items

- Corrective Action Categorization
- Corrective Action Quality
- Corrective Action Timeliness
- Rollover Process

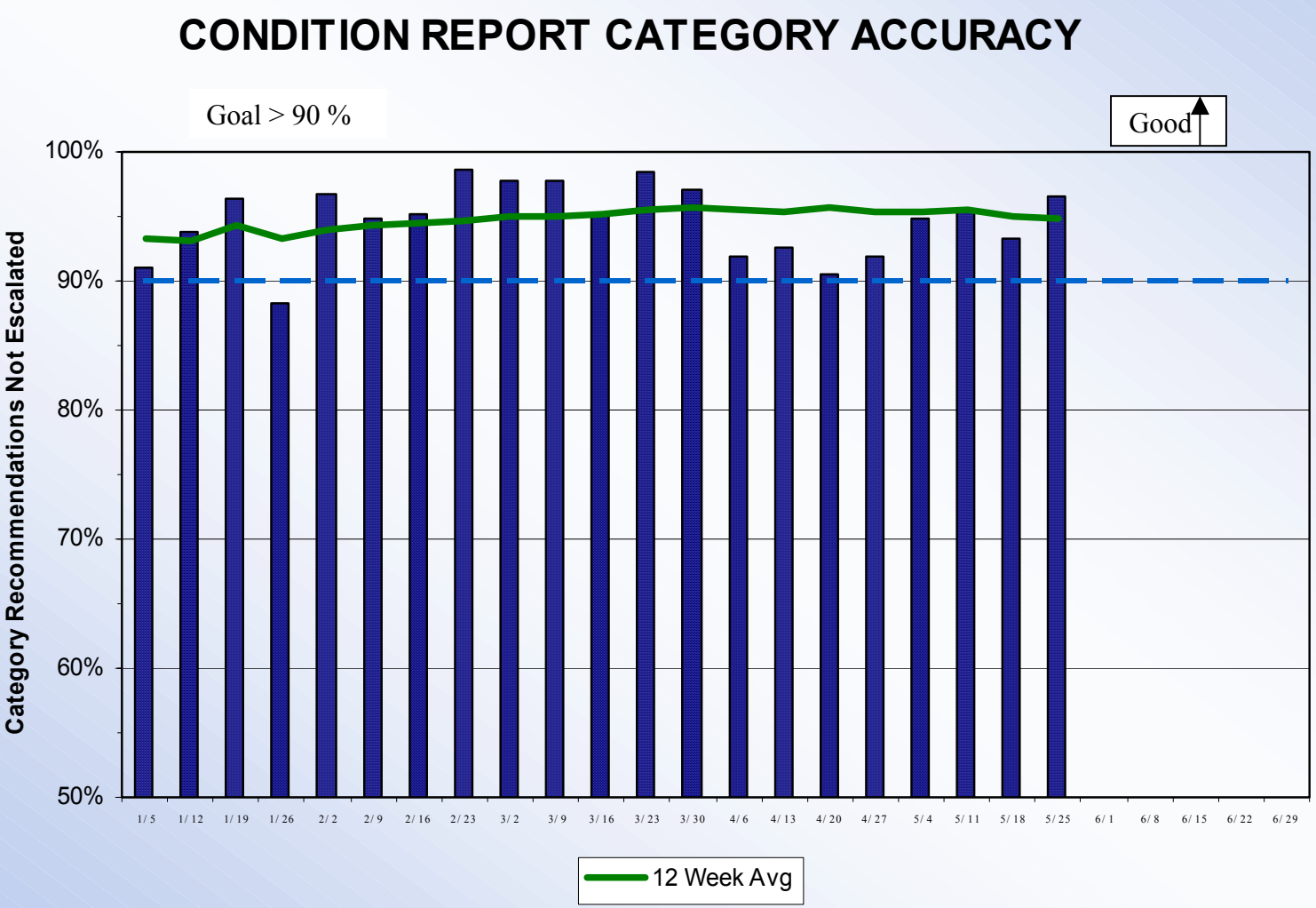


Corrective Action Program

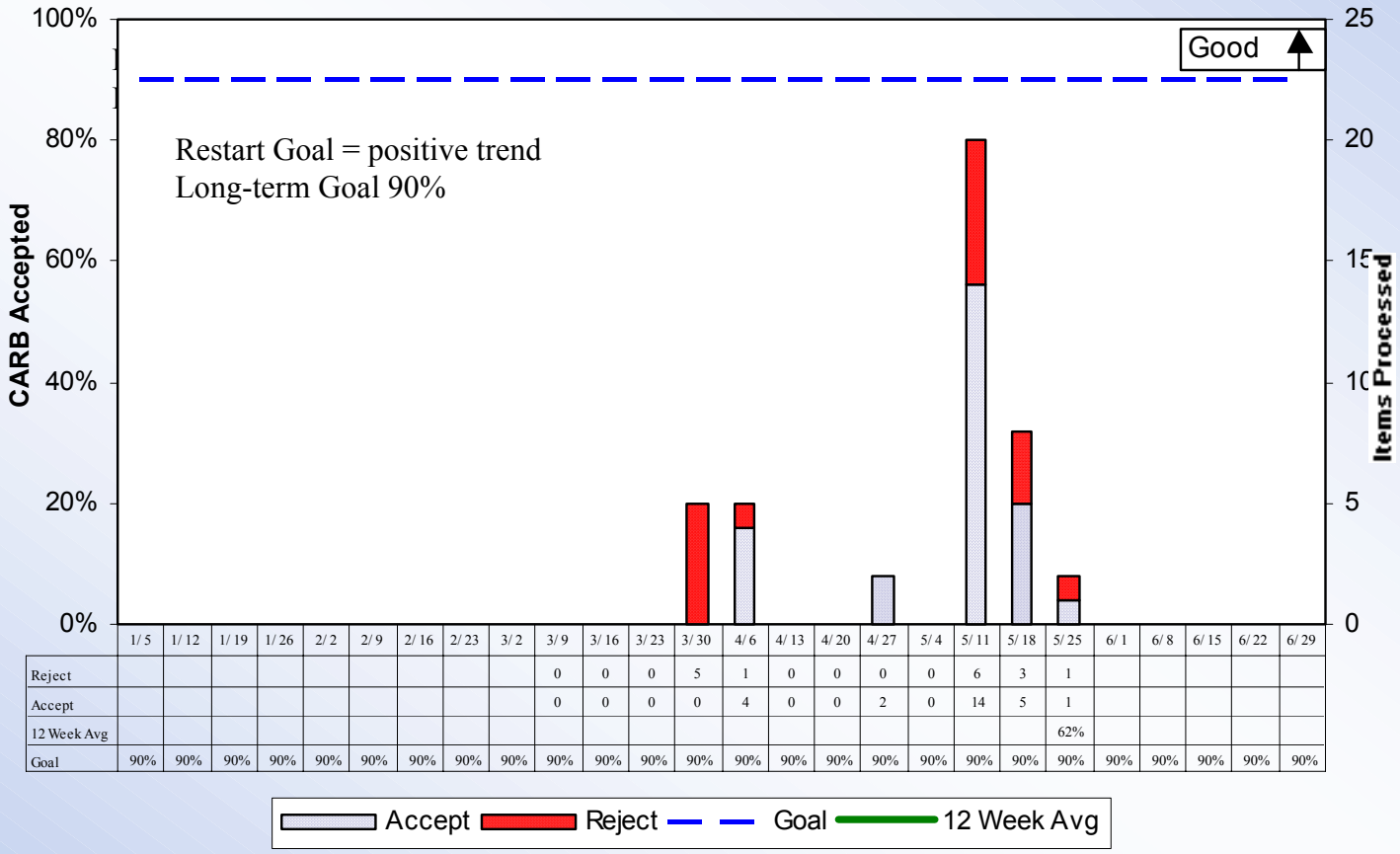
Categorization

- New Process Effective March 1, 2003
  - Issued revision to NOP-LP-2001, 'Condition Report Process'
  - New Condition Reports issued since ~ 2,500
- Restart Goal is to Maintain a 12-Week Rolling Average Level of 90% or Better
- Management Review Board Upgrades
  - Category changed to a higher level ~5%

Corrective Action Program
Categorization



Corrective Action Program
Corrective Action Review Board



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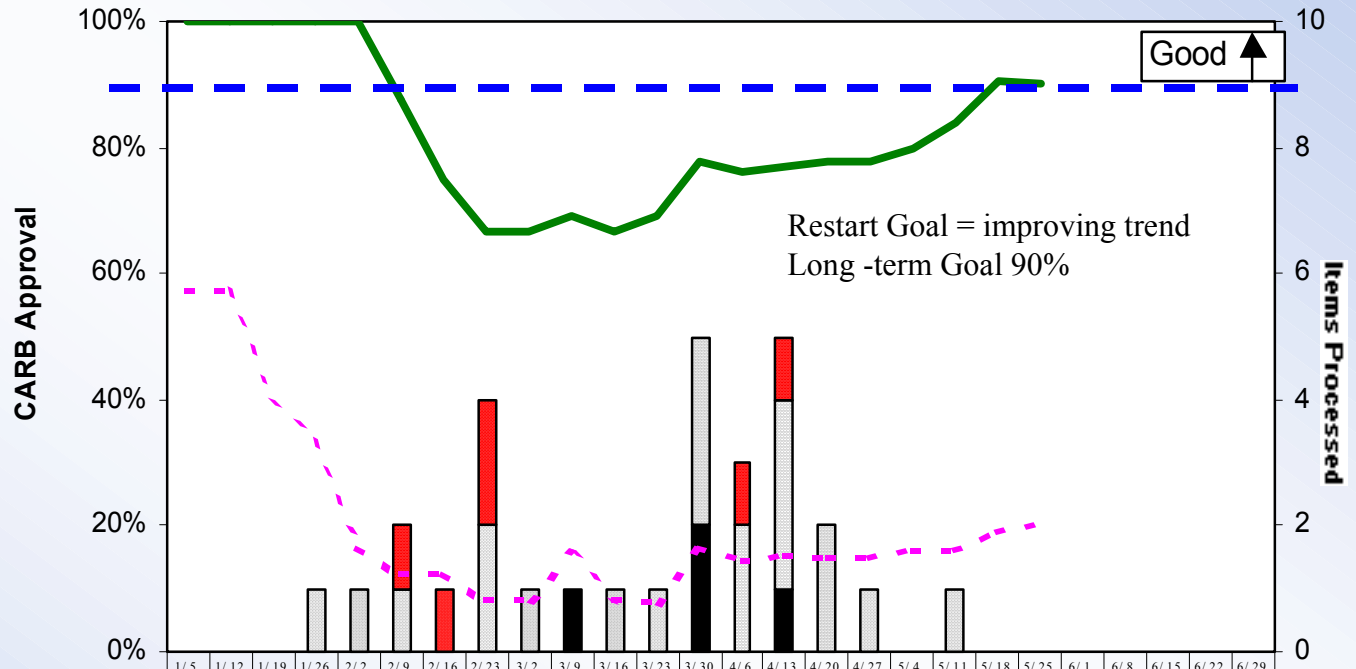
Reject										0	0	0	5	1	0	0	0	0	6	3	1					
Accept										0	0	0	0	4	0	0	2	0	14	5	1					
12 Week Avg																					62%					
Goal	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%

- **Apparent Cause** - CARB Acceptable Rate ~ 62%

Corrective Action Program
Corrective Action Review Board



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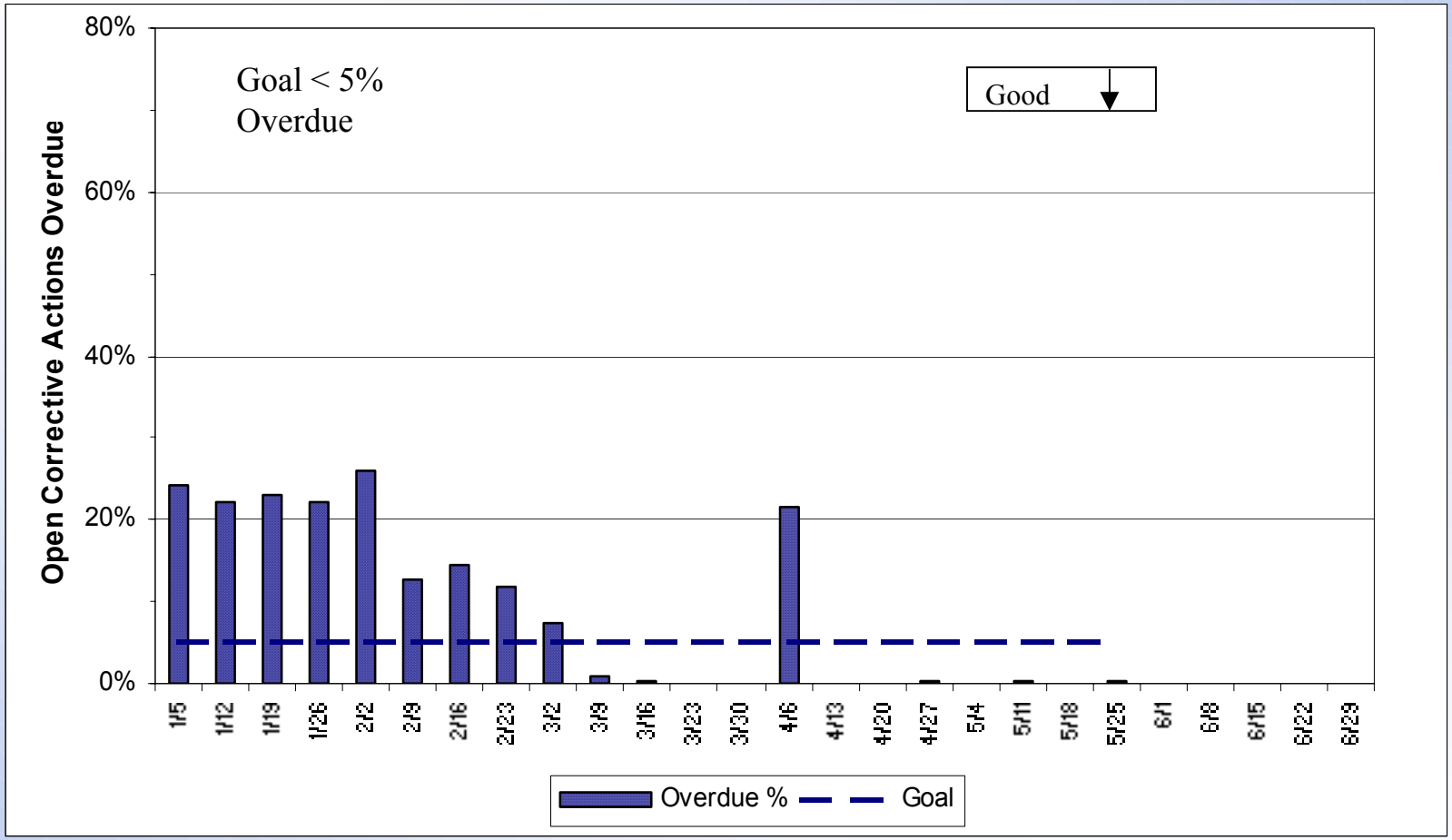
Reject	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0					
Approved with comments	0	0	0	1	1	1	0	2	1	0	1	1	3	2	3	2	1	0	1	0	0					
Approved	0	0	0	0	0	0	0	0	0	1	0	0	2	0	1	0	0	0	0	0	0					
12-Week %Apvd Avg	57%	57%	40%	33%	17%	13%	13%	8%	8%	15%	8%	8%	17%	14%	15%	15%	15%	16%	16%	19%	20%					
12-Week %Apvd &Apvd w/ comments	100%	100%	100%	100%	100%	88%	75%	67%	67%	69%	67%	69%	78%	76%	77%	78%	78%	80%	84%	90%	90%					

Approved | Approved with comments | Reject | 12-Week %Apvd &Apvd w/ comments | 12-Week %Apvd Avg

- **Root Causes** - CARB Acceptable Rate ~ 90%

Corrective Action Program

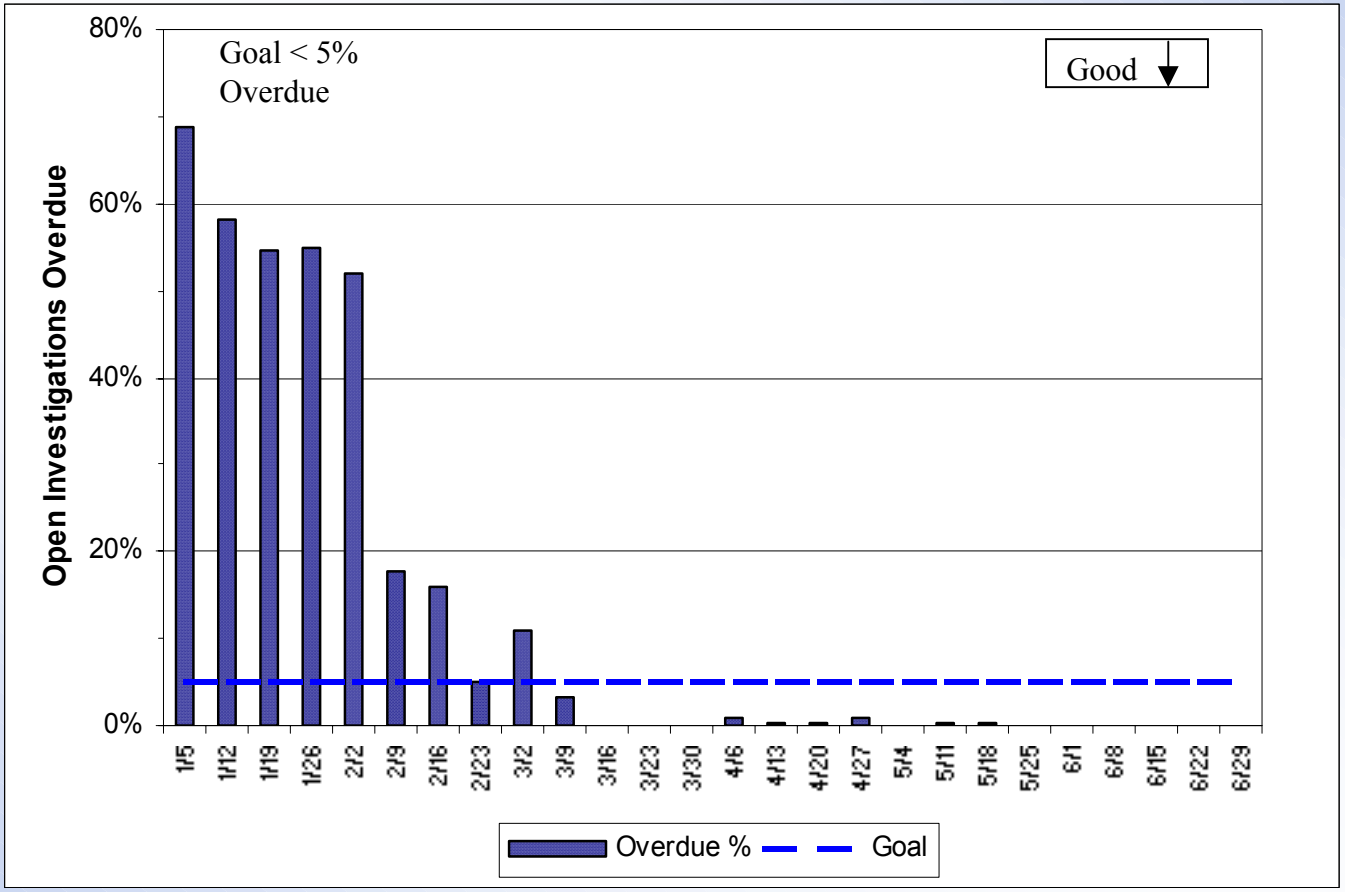
Timeliness



- Goal: < 5% overdue corrective actions

Corrective Action Program

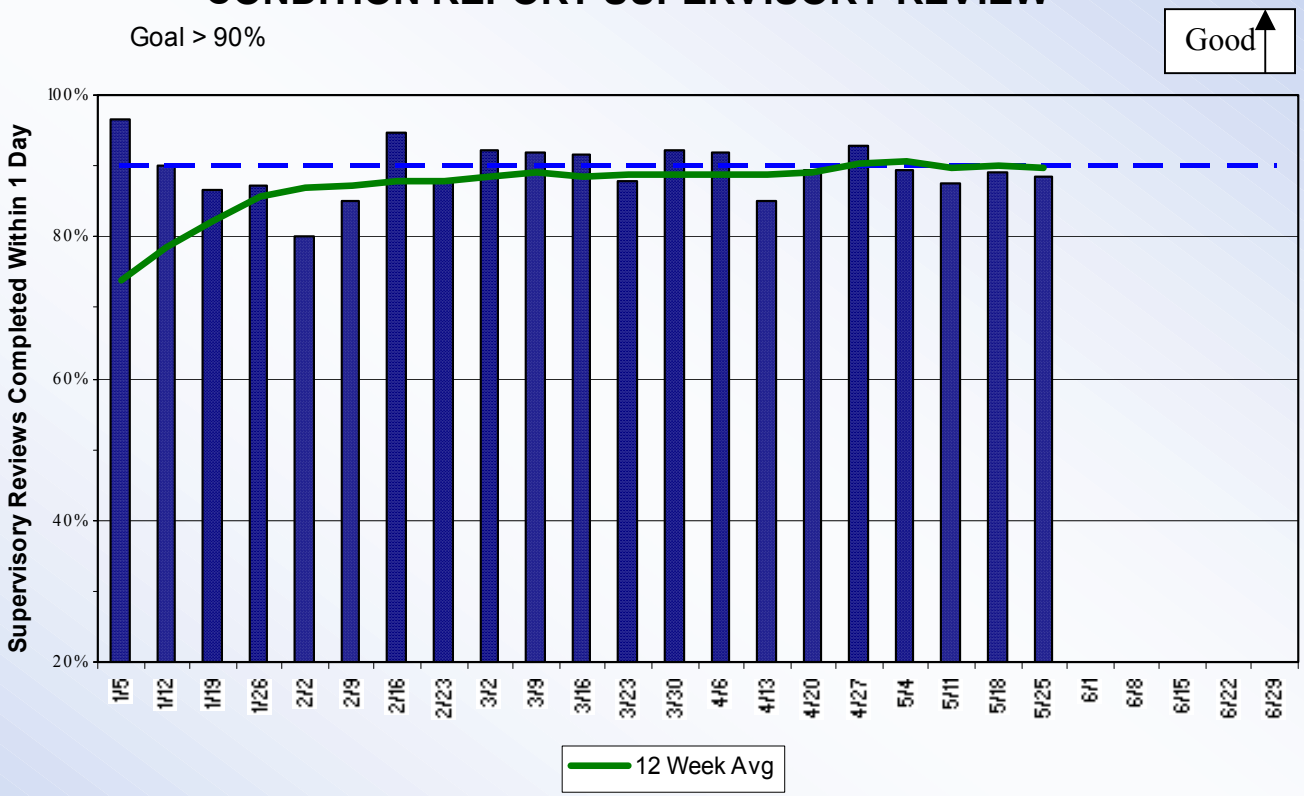
Investigation Timeliness



- Goal: < 5% overdue corrective action investigation

Corrective Action Program

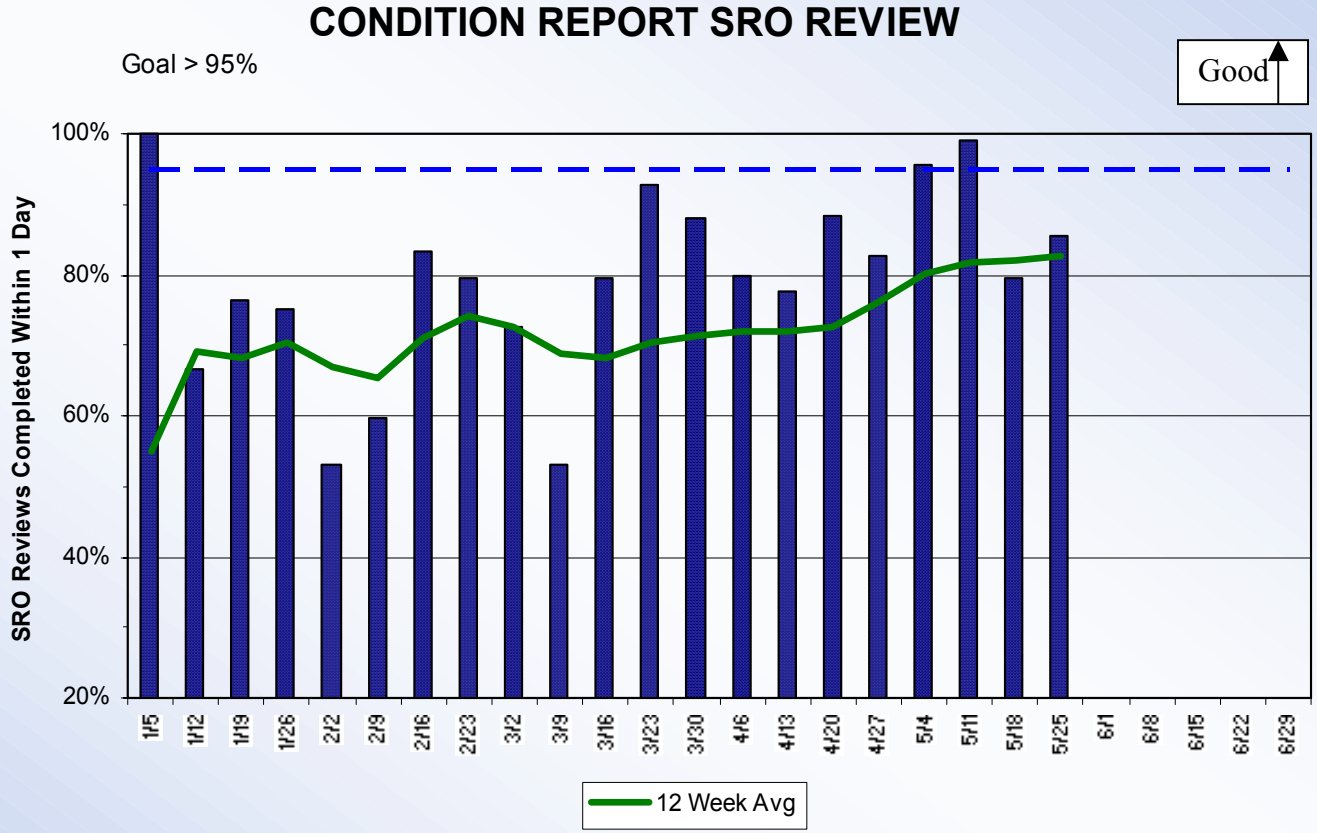
Supervisor Review Timeliness



- Goal: 90 % or more supervisor reviews completed one day or less
  - 89% completed within one day or less

Corrective Action Program

SRO Review Timeliness



- Restart goal: > 95% of the SRO reviews to be completed within one day
  - 86% of SRO completed within one day

Corrective Action Program

Rollover Process

- Rollover Definition
  - The method of transferring the evaluation (complete or partial) of issues(s) addressed in one Condition Report (CR) to another, more encompassing CR
- Difficulties Identified
  - Paper trail is hard to follow at times
  - Exacerbated by the large number being processed
  - Generally concentrated in specific areas
  - Few isolated cases actually have not been effectively resolved
- Recommended Improvements
  - Perform independent assessment
  - Recently revised NOP-LP-2001, Condition Report Process, has rollover criteria
  - Strengthened rollover criteria in future Nuclear Operating Procedure revision based on lessons-learned

Quality Assessment Update

Steve Loehlein

Manager - Quality Assessment

Quality Assessment Update

Independent Review of Condition Reports

- Led by Nuclear Quality Assessment
- Team Members from other Departments and other FENOC Sites
- Scope Includes all 0350 Restart Condition Reports/Corrective Actions

Quality Assessment Update

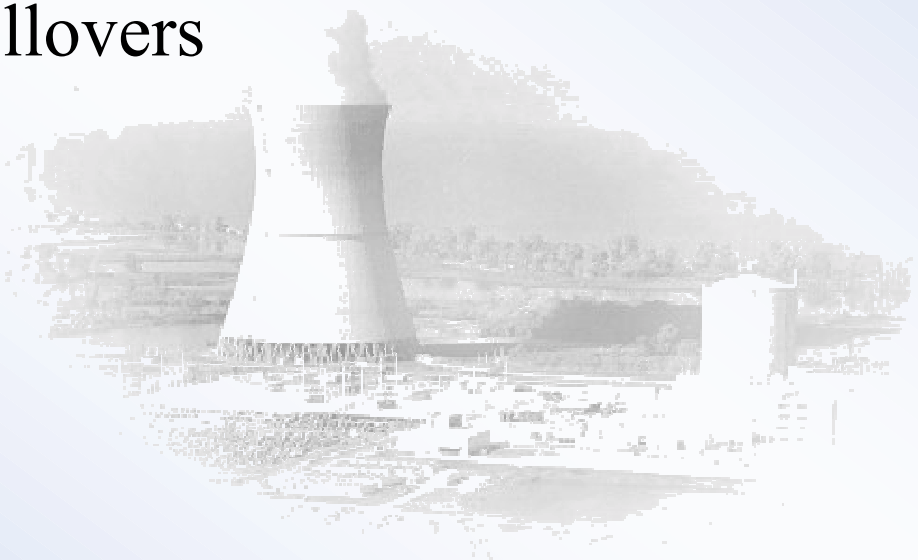
Objectives

- Confirm that Initially Identified Condition has been Evaluated
- Track/Confirm that Issues Rolled to Another Condition Report were not lost
- Document any Resulting Concerns in the Corrective Action Process for Resolution

Quality Assessment Update

Status of Review (as of May 27)

- 1783 - 0350 Restart Condition Reports (CRs)
- 7700 Associated Corrective Actions (CAs)
- 510 Associated Rollovers



Quality Assessment Update

Reviews Completed to date (as of May 27)

- 5057 CAs reviewed (includes Rollover CAs)
  - 4379 CAs found to be acceptable (87% of those reviewed)
  - 678 CAs continue in review (13% of those reviewed)
- 510 Rollover CAs (100%)
  - 415 Rollover CAs found to be acceptable (81%)
  - 95 Rollover CAs continue in review (19%)

Quality Assessment Update

Identified Concerns

- Weaknesses in Documenting Resolution of the Identified Concern
- Evaluations that do not address Full Scope of Identified Issue
- Two Isolated Examples of incorrect Actions
- Concerns have been Identified with the involved Department and reported on Condition Reports

Quality Assessment Update

Recent Key Activities

- Assessment of Activities for 50 psig and 250 psig Reactor Coolant System leakage Walkdowns
- Assessment of Emergency Preparedness Dry Run Exercise
- Observations of Technical Issues Resolution
- Quality Control Oversight of Vendor Activities

Quality Assessment Update

Current Activities

- Focused Assessment of Corrective Action Program
- Continue Emergency Preparedness
  - Training drills, controller briefs, actual exercises
- Management Decision-Making, Safety Culture, Radiation Protection, and Regulation Driven Changes to the Security Program

Remaining Issues/Focus

Mike Ross
Restart Director

Remaining Issues/Focus

Plant Support Center

- In Full Operation
- Issue List Developed
- Action Item Database
- Issues Needing Decision brought to Senior Management Team in Timely Fashion
- Developed Issue Resolutions with Fragnet Transferred to Outage Control
- Director, Nuclear Supply Chain on Site and Part of Plant Support Center Meeting to expedite Supply Requests
- Listing of Modifications

Remaining Issues/Focus

Focus

- Early Identification of Emergent Issues
- Review of Plant Issues to ensure Proper Prioritization and Resolution
- Issue Receiving Extra Focus
  - HPI Modification
  - Electrical Transient Analysis Program (ETAP)
  - Safety Features Actuation System Relays
  - Air-Operated Valve Program
  - Plant Block Walls Seismic & Tornado Loading
  - Thermal Overload Bypass of Safety Related Motors
- Recent additions to Modification List
  - Containment Spray Cyclone Separator
  - Boron Precipitation Modification

Schedule Milestones

Mike Stevens
Director - Maintenance

Upcoming Activities

Schedule Milestones

- Complete Electrical Transient Analysis Program for Mode 4
- Refill Main Condenser & Feedwater
- Perform Testing on HPI 1 & 2
- Refill Circulating Water and draw Condenser Vacuum
- Conduct Mode 4 Restart Readiness Review
- Enter Mode 4/Mode 3
- Complete Train 2 work, followed by Train 1 work
- Conduct Startup Readiness Review Meeting
- Startup

Restart Action Performance

Clark Price

Owner - Restart Action Plan

Restart Action Performance

Item No.	0350 Checklist Item Description	Discovery	Implementation
1	Adequacy of Root Cause		
a	Penetration cracking and Reactor Pressure Vessel corrosion	Technical Root Cause 02-0891	
b	Organizational, Programmatic and Human Performance Issues	100	
2	Adequacy of Safety Significant Structures, Systems and Components		
a	Reactor Pressure Vessel Head Replacement		97
b	Containment Vessel Restoration following RPV Head Replacement		99
c	Structures, Systems and Components Inside Containment	100	94
c.1	Containment Emergency Sump	100	100
d	EOC of Boric Acid in Systems Outside of Containment	100	97

Restart Action Performance

Item No.	0350 Checklist Item Description	Discovery	Implementation
3	Adequacy of Safety Significant Programs		
a	Corrective Action Program	100	100
b	Operating Experience Program	100	100
c.1	Quality Audits	100	100
c.2	Self-Assessments of Programs		100
d	Boric Acid Corrosion Management Program	100	100
e	Reactor Coolant System Unidentified Leakage Monitoring Program		100
f	In-Service Inspection Program	100	100
g	Modification Program	100	100
h	Radiation Protection Program	100	97
i	Completeness & Accuracy of Required Records & Submittals to NRC		60

Field Complete | In Progress | Hold - Plant Conditions | N/A - Not Applicable

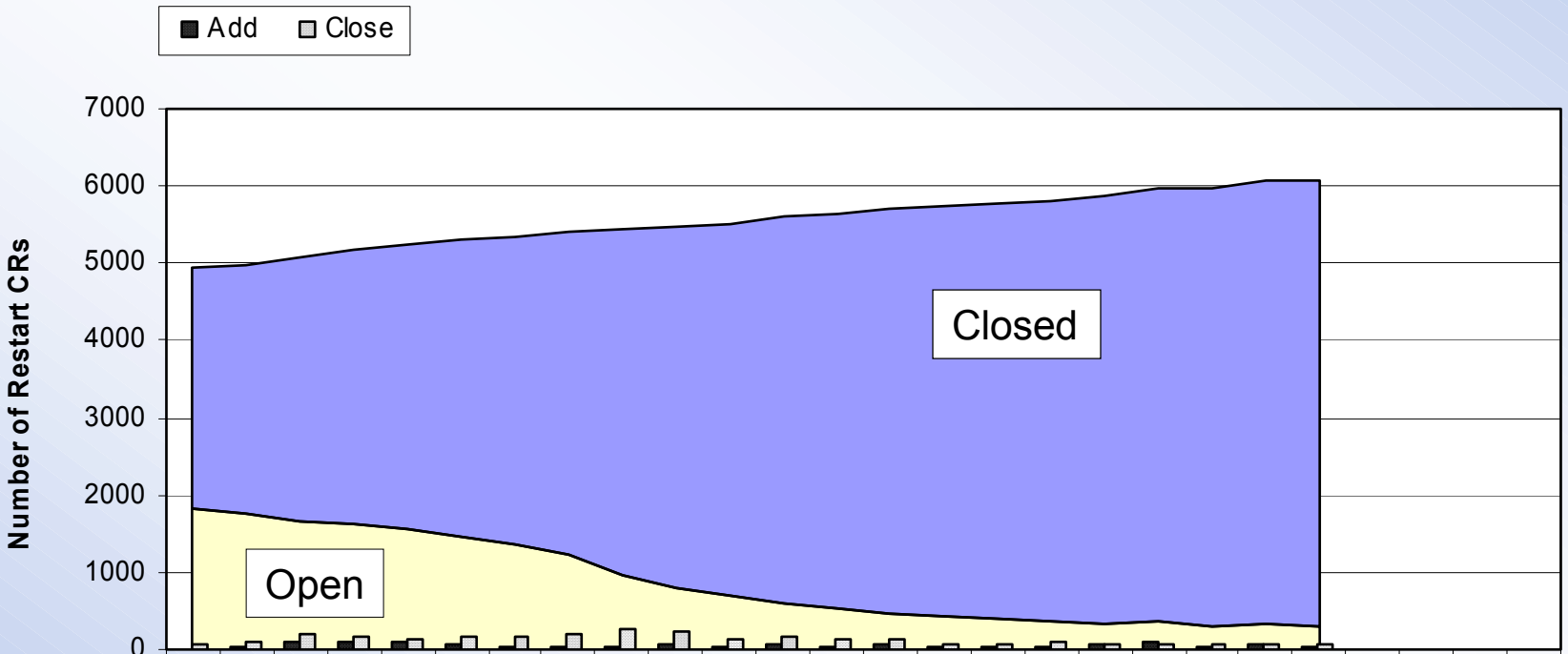
Restart Action Performance

Item No.	0350 Checklist Item Description	Discovery	Implementation
4 a-b	Adequacy of Organizational Effectiveness & Human Performance		90
5	Readiness for Restart		
a	Review of Licensee's Restart Action Plan		
b	Systems Readiness for Restart	100	91
b.1	Design Calculation Resolution	100	Included with 5 b
c	Operations Readiness for Restart		Restart Readiness Reviews
d	Test Program Development and Implementation		72
6 a-f	Licensing Issue Resolution		100
7 a	Confirmatory Action Letter Resolution		CAL Resolution & Restart Report

Field Complete | In Progress | Hold - Plant Conditions | N/A - Not Applicable

Restart Action Performance

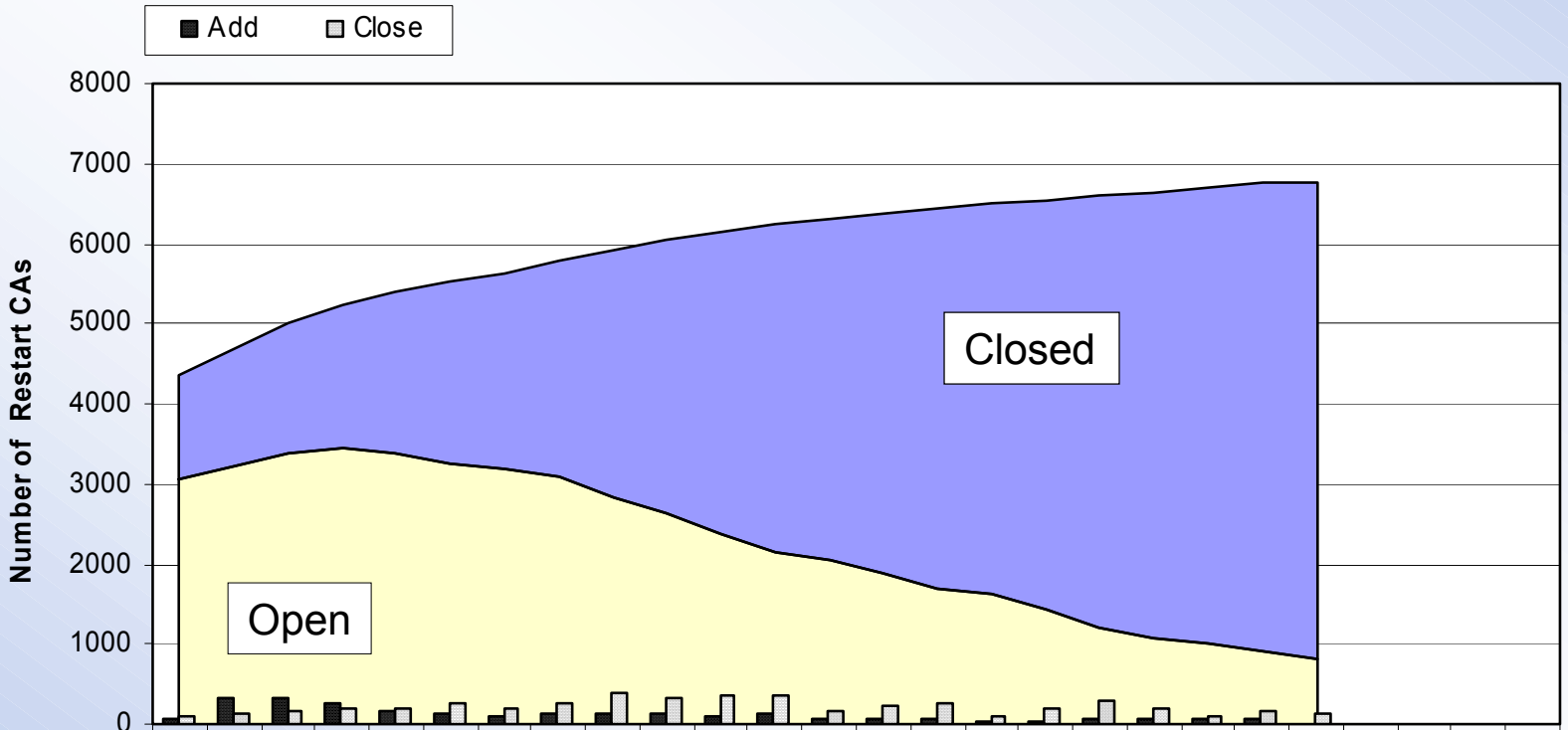
TOTAL RESTART CONDITION REPORT EVALUATIONS



	1/5	1/12	1/19	1/26	2/2	2/9	2/16	2/23	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27	5/4	5/11	5/18	5/25	6/1	6/8	6/15	6/22	6/29
Total Closed	3103	3204	3406	3558	3681	3833	3989	4173	4452	4692	4830	4998	5117	5234	5313	5377	5460	5542	5608	5673	5733	5788				
Total Open	1832	1772	1668	1610	1574	1475	1368	1219	973	786	689	597	516	457	427	400	350	325	349	313	322	294				
Close	82	101	202	152	123	152	156	184	279	240	138	168	119	117	79	64	83	82	66	65	60	55				
Add	8	41	98	94	87	53	49	35	33	53	41	76	38	58	49	37	33	57	90	29	69	27				

Restart Action Performance

TOTAL RESTART CORRECTIVE ACTIONS



	1/5	1/12	1/19	1/26	2/2	2/9	2/16	2/23	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27	5/4	5/11	5/18	5/25	6/1	6/8	6/15	6/22	6/29
Total Closed	1313	1457	1619	1817	2009	2262	2448	2701	3082	3401	3751	4097	4272	4497	4771	4879	5088	5394	5575	5677	5840	5957				
Total Open	3049	3216	3384	3431	3389	3268	3191	3081	2823	2636	2381	2159	2051	1886	1675	1610	1442	1196	1075	1024	924	809				
Close	97	144	162	198	192	253	186	253	381	319	350	346	175	225	274	108	209	306	181	102	163	117				
Add	79	311	330	245	150	132	109	143	123	132	95	124	67	60	63	43	41	60	60	51	63	2				

Closing Comments

Lew Myers
Chief Operating Officer - FENOC