

June 23, 1997

Public

2401

Leys

Mr. J. H. Mueller
Site Vice President
Zion Station
Commonwealth Edison Company
101 Shiloh Boulevard
Zion, IL 60099

SUBJECT: NRC OVERSIGHT PANEL MEETING SUMMARIES

Dear Mr. Mueller:

Several NRC oversight panel meetings have been held with Zion Station management within the past few months. These management meetings were open to public observation. Previously, meeting summaries were incorporated into routine inspection reports covering the period during which the meetings occurred. To ensure higher public visibility with regard to these specific meetings, we have decided to issue the meeting summaries as separate documents. Enclosure 1 is a compilation of meeting summaries for those meetings already held. Enclosure 2 contains the handouts provided to the NRC oversight panel by Commonwealth Edison during the meetings.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosures will be placed in the NRC's Public Document Room.

Sincerely,

/s/ G. E. Grant for
Geoffrey E. Grant, Director
Division of Reactor Projects

Docket Nos.: 50-295; 50-304

- Enclosures: 1. Compilation of Meeting Summaries
2. Meeting Handouts

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DATE	6/23/97		6/23/97		6/23/97			

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cc w/encl: T. J. Maiman, Senior Vice President
Nuclear Operations Division
D. A. Sager, Vice President,
Generation Support
H. W. Keiser, Chief Nuclear
Operating Officer
R. Starkey, Plant General Manager
R. Godley, Regulatory Assurance
Supervisor
I. Johnson, Acting Nuclear
Regulatory Services Manager
Richard Hubbard
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Enclosure 1

Public Meeting Summaries
NRC Oversight Panel for Zion Station

April 8 Management Meeting

Summary:

The licensee presented information contained in the applicable handout in Enclosure 2. During the licensee's presentation, the licensee provided clarification in response to NRC questions and comments. In addition, meeting participants discussed the scope of the licensee's restart plan, including the need for performance measures; operator assessments and training; more strict controls implemented on operating evolutions; and needed efforts to improve operability assessments, work scheduling, and the corrective action process.

Attendees:

NRC

G. Grant, Director, Division of Reactor Safety
M. Dapas, Chief, Division of Reactor Projects Branch 2
A. Vogel, Senior Resident Inspector
D. Hills, Project Engineer
S. Orth, Radiation Specialist
D. Calhoun, Resident Inspector
E. Cobey, Resident Inspector
C. Shiraki, Project Manager, Office of Nuclear Reactor Regulation

Commonwealth Edison

T. Maiman, Executive Vice-President
J. Mueller, Site Vice-President
R. Starkey, Plant General Manager
T. O'Connor, Restart Manager
R. Godley, Regulatory Assurance Manager
T. Bergner, Training Manager
T. Kirwin, WCC Superintendent
C. Winters, Shift Engineer
D. Smith, Nuclear Communication
L. Holden, Nuclear Licensing Administrator

Illinois Department of Nuclear Safety

R. Schulz, Resident Supervisor
J. Yesinowski, Resident Inspector

Enclosure 1

April 28 Management Meeting

Summary:

The licensee presented information contained in the applicable handout in Enclosure 2. During the licensee's presentation, the licensee provided clarification in response to NRC questions and comments. In addition, meeting participants discussed the methodology and results of the operations department reassessment process, the scope of the operations high intensity training, and the objectives and elements of the licensee's recovery plan.

Attendees:

NRC

G. Grant, Director, Division of Reactor Safety
R. Capra, Director, Project Directorate III-2, Office of Nuclear Reactor Regulation
M. Dapas, Chief, Division of Reactor Projects, Branch 2
A. Vogel, Senior Resident Inspector
S. Orth, Radiation Specialist
D. Calhoun, Resident Inspector
E. Cobey, Resident Inspector
C. Shiraki, Project Manager, Office of Nuclear Reactor Regulation

Commonwealth Edison

J. Mueller, Site Vice-President
R. Starkey, Plant General Manager
T. O'Connor, Restart Manager
G. Vanderheyden, Operations Manager
R. Godley, Regulatory Assurance Manager
T. Bergner, Training Manager
T. Kirwin, WCC Superintendent

Illinois Department of Nuclear Safety

J. Yesinowski, Resident Inspector

June 2 Management Meeting

Summary:

The licensee presented information contained in the applicable handout in Enclosure 2. During the licensee's presentation, the licensee provided clarification in response to NRC questions and comments. In addition, meeting participants discussed the objectives and development of the licensee's recovery plan including fulfillment of the commitments

Enclosure 1

contained in the confirmatory action letters, and recovery plan status including the results achieved thus far. At the conclusion of the meeting, the NRC requested the licensee to broaden future meetings to include discussion of significant restart issues and performance improvement actions.

Attendees:

NRC

A. Beach, Regional Administrator, Region III
G. Grant, Director, Division of Reactor Projects
R. Capra, Director, Project Directorate III-2, Office of Nuclear Reactor Regulation
M. Parker, Acting Chief, Division of Reactor Projects Branch 2
A. Vogel, Senior Resident Inspector
Z. Falevits, Reactor Inspector
S. Orth, Radiation Specialist
D. Calhoun, Resident Inspector
E. Cobey, Resident Inspector
C. Shiraki, Project Manager, Office of Nuclear Reactor Regulation

Commonwealth Edison

J. Mueller, Site Vice-President
R. Starkey, Plant General Manager
T. O'Connor, Restart Manager
G. Vanderheyden, Operations Manager
R. Godley, Regulatory Assurance Manager
T. Luke, Engineering Manager
T. Kirwin, WCC Superintendent

Illinois Department of Nuclear Safety

J. Yesincowski, Resident Inspector

Enclosure 2

Commonwealth Edison
Management Meeting Handouts

Zion Station Presentation

APRIL 8, 1997

Introduction

J. Mueller
Site Vice President

AGENDA

Introduction

J. Mueller

Actions Taken

- Operations
- Support to Operations
- Management Systems

R. Starkey

T. Kirwin

R. Godley

Zion Recovery Plan

T. O'Connor

Conclusion

J. Mueller

Actions Taken

OPERATIONS

- Completed Team Training for all shifts
- Completed Standards Evaluation for all shifts
- 3-Way communication expectation firmly established
- Concurrent/peer verification consistently performed
- Formalized access to Control Room

OPERATIONS

- SOI's & Non-Routine Periodic Tests (PTs) are reviewed and revised prior to use
- Procedure Writer available to the Shift 7-day/wk, 24 hr./day
- Established positive control on evolution scheduling

OPERATIONS

- Moved Shift Manager into Control Room
- Operations supervisor field monitoring program implemented
- Greater Management involvement in Training
- Simulator and Control Room now the same

SUPPORT TO OPERATIONS

- Evaluated all Open U2/U0 Operability Assessments
- Engineering Assurance Team
- Long Term Temp Alts significantly reduced
- Operator Workarounds significantly reduced
- Failed Annunciators addressed

SUPPORT TO OPERATIONS

- Dept. Surveillance Coordinators established & trained
 - » Timely Surveillance Closeouts
- Implemented 12 week Rolling Schedule
- Improved quality of controlled P&IDs
- Installed RPI modification on U2

MANAGEMENT SYSTEMS

- TSC used to reduce Control Room burden
 - » Weather Balloon Event
 - » Loss of U1 SAT
- Corrective Actions Process Improvements
 - » Management PIF Review
 - » SCAQ Collegial Review
 - » Common Cause Analysis
 - » Effectiveness Reviews
- Safety Review Board reconstituted
- PORC Improvement Plan
- 1996 Performance Improvement Plan

Zion Recovery Plan

ZION RECOVERY PROGRAM

- Step Change in Operations performance
 - » Operators
 - » Management
- Selected management systems
- Readiness Programs
- Oversight

OPERATIONS IMPROVEMENTS

- Selection of best operators
- Training for performance improvements
- Implemented higher standards
- Improvements in Operations support
- Improvements in operator's environment
- Reduction of challenges to operators
- Material condition and system readiness
- Demonstration of higher performance standards

STAFFING PROCESS

- Define accountabilities and capabilities
- Select individuals
- Define standards/expectations for crew performance
- Assign crews
- Transition and assimilation
- Remediation and training
- Demonstration of capabilities

REMEDIATION AND TRAINING PROGRAM

- Theory, with emphasis on reactivity control
- Normal operation--new standard of conduct of operations
- Emergency and abnormal operation
- Training includes classroom and simulator
- Shift management and non-management participate in training

OPERATIONAL READINESS

- Demonstration of performance to new standards
- Surveillances, normal and infrequent evolutions and pre-startup tests
- Independent validation
- Observations and oversight of performance
- Mentoring by supplemental operators

MANAGEMENT SYSTEMS

- Corrective action
- Engineering and technical support
- Getting work done
- Management interaction with shift

READINESS PROGRAMS

- Department readiness - self assessments and associated corrective actions
- System readiness - assessment by Systems Engineers of selected systems and screening of backlogs
- Shift Manager and Operations Department affirmation of operations readiness

OVERSIGHT

- SQV independent verification of effectiveness of Recovery Program
- SRB review of plan and implementation effectiveness
- NOD management (non-Zion) team to independently assess readiness of Zion

Conclusion

April 28, 1997 Meeting

Zion Recovery Plan

Zion Nuclear Station

NRC Restart Panel

Agenda

R. Starkey

- *Introduction*

G. Vanderheyden

- *Operator Selection and Results*

T. Bergner

- *Operator Training Program and Results*

T. O'Connor

- *Recovery Program Overview*

Operations Staffing Process

■ Established Core Competencies

- Personal Drive
- Trust & Integrity
- Safety Awareness
- Promotes Continuous Improvement

■ Additionally for Management

- Position Specific Competencies
- Annual Performance Reviews
- Assessment of Leadership Competencies

Operations Staffing Process

■ Developed Employee Assessment Process

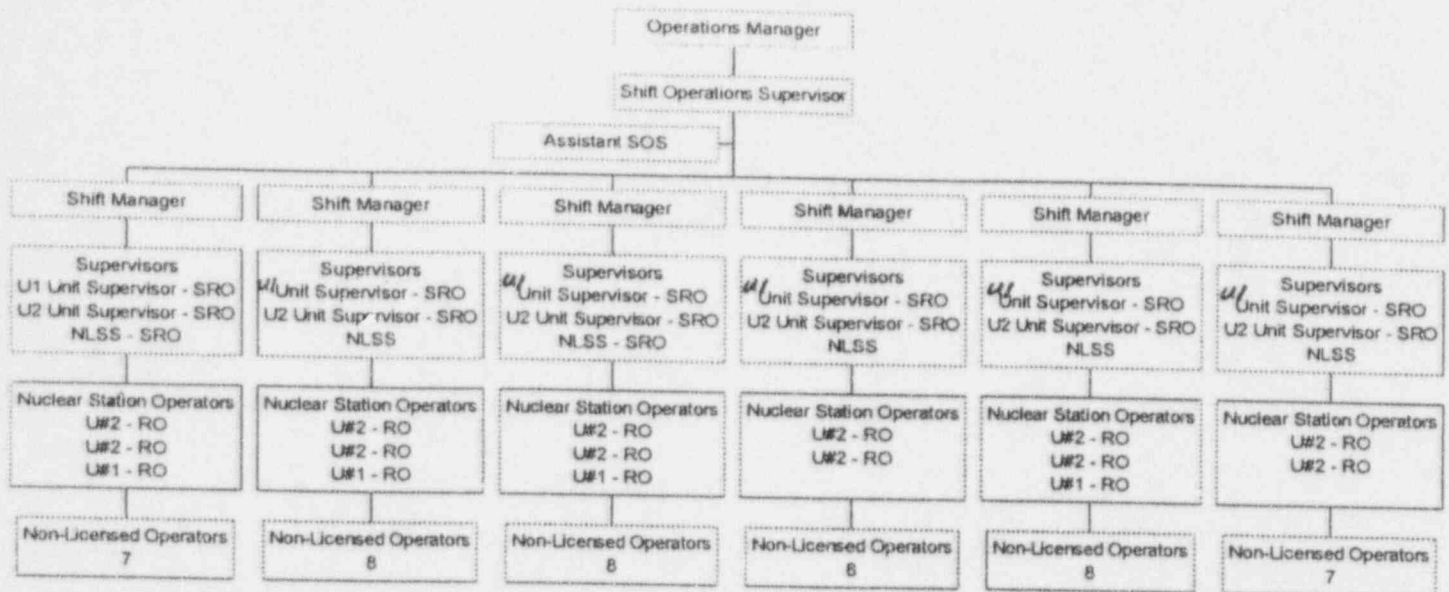
- Employee Input
- Supervisory Input
- Evaluated Against Competencies by an Assessment Board
- Line Management Review
- SVP Final Review and Approval

Results

- 187 Operations Personnel Assessed
 - 103 Bargaining Unit
 - 84 Management
- 169 personnel Selected for Operations
 - 141 People on Team
 - 28 Personnel on Team/Reassigned or Require Remediation
- 18 Personnel Reassigned Outside of Operations

NEW ORGANIZATION

New Position Descriptions for Each Position



STAFFING PLAN

6 Crews to Accomodate Training 2 Crews at a Time

4 Crews Manning the Plant

Overtime to Cover Shortages / Plan Complies GL 89-12

Supports Remediation Plan

What We Learned

- Standards Not Clearly Articulated
- Ops Organization Did Not Support the Shift Engineer Being in Charge
- Supervisors Lacked Accountability/Role Clarity
- Too Many Active SRO's Weakened Teamwork
- Supervisors Didn't Know the Performance of NSO's and NLO's

What We Have Improved

- New Standards Issued
- Simplified Command & Control Structure
- Developed New Position Descriptions/Reselected Supervisors
- Limited Active SRO's
- Created OWCC to Remove Administrative Burden from Unit Supervisor & Shift Manager



Operator Training

Zion Station

Presentation Agenda

- Background
- Phoenix Course Description
- Involvement
- Current Status

Background

■ *Pre-event Analysis*

- *December 1996*
 - *Reviewed ~ 1.5 years of assessment data*
 - *Reviews of Draft SOER 96-01*
- *Conclusions Fit Into 8 Categories*
 - *Mgmt not accountable for standards enforcement*
 - *Standards not implemented as prescribed*
 - *Professionalism/Pride/Ownership lacking*
 - *Control room roles/responsibilities not clearly defined*
 - *Control room formality inferior*
 - *Procedures not consistently complied w*
 - *Crews lack self-assessment culture*
 - *Knowledge and skills deficiencies exist*

Background

■ *Pre-event Analysis (cont)*

- *Analysis Resulted in ZIOPR Training*
 - *Crew Team Training - completed crews 3/28/97*
 - *Technical Knowledge Enhancement*
 - *Practical Skills Application on Simulator*
 - *Evaluation*

Post-Event Analysis

- Oral Boards Conducted

- Re-confirmed ZIOPR Assumptions on Technical Knowledge

- Operations Standards Require Upgrade

- Control Room Interfaces Need Attention During Simulator Training

- Off-Shift Mgmt Interface w/ Control Room weak

Phoenix Course Description

■ Course work

- Fundamentals
- Normal, Abnormal, and Emergency Procedures
- New Operating Standards
- Seminars

Phoenix Course Description

■ *Fundamentals (Licensed Personnel)*

- *Reactor Kinetics* *Neutron Sources* *Xenon*
- *React. Coef.* *Burnable Poisons* *OpPhysics*
- *Control Rods* *Reactivity Trnr.*
- *Basic Energy* *Fld Statics / Dyn* *Heat Xfr*
- *Thermal Hydraulic* *Hot Channel Ftrs* *Brittle Frctr*
- *Vessel Stress* *Components* *Power Dist.*
- *Lecture and Self Study Sessions*
- *Written Examination*

Phoenix Course Description

■ Fundamentals (Non-Licensed)

- Eng. Physics Turbines Thermodynamics
- Fluid Flow Pumps Instrument/Control
- Lecture and Self Study Sessions
- Quiz
- Written Exam

Phoenix Course Description

■ Normal, Abnormal, and Emergency Procedures

- Integrated shutdown/cooldown/solid Ops
- Integrated startup/heatup/power maneuver
- Reactor Trips
- SGTR's
- Evaluated dynamic scenarios

Phoenix Course Description

Normal, Abnormal, and Emergency Procedures

- Additional shift burden events
 - Forced outage schedule
 - Outage OOS requests
 - Surveillance tests
 - PM's
 - Shutdown LOCA

Phoenix Course Description

■ Normal, Abnormal, and Emergency Procedures

- Additional shift burden events
 - Engineer with operability issue
 - Switching order
 - Loss of RHR cooling
 - Instrument failures
 - Mode related operability issues
 - NI work

Phoenix Course Description

- *Normal, Abnormal, and Emergency Procedures*
 - *Additional shift burden events*
 - *Vessel head inner seal leak*
 - *Chemistry concerns*
 - *Faulted maintenance activity*
 - *letdown leak*
 - *Integration of new operating standards*

Phoenix Course Description

Seminar Topics

- *Operator roles and responsibilities*
- *Conservative decision making*
- *Shift prioritization*
- *Unilateral action philosophy*
- *Offshift management interfaces*
- *Self check principles*
- *Communication policies*

Involvement

■ Broad range of participation

- Site Vice President
- Station Manager
- Operations Manager
- Qualified Nuclear Engineer
- Off Shift Management
- Maintenance
- Work Control

Involvement

■ *Broad range of participation (cont)*

- *Shift Mentors*
- *Training Instructor Mentors*
- *SQV*
- *ISEG*
- *ComEd Instructors*
- *NOD Training Manager*

Current Status

- Lessons Approved
- Scenarios approved and dry runs complete
- Training schedule established
- Contingencies being considered
- Followup Ops equal training draft schedule established.

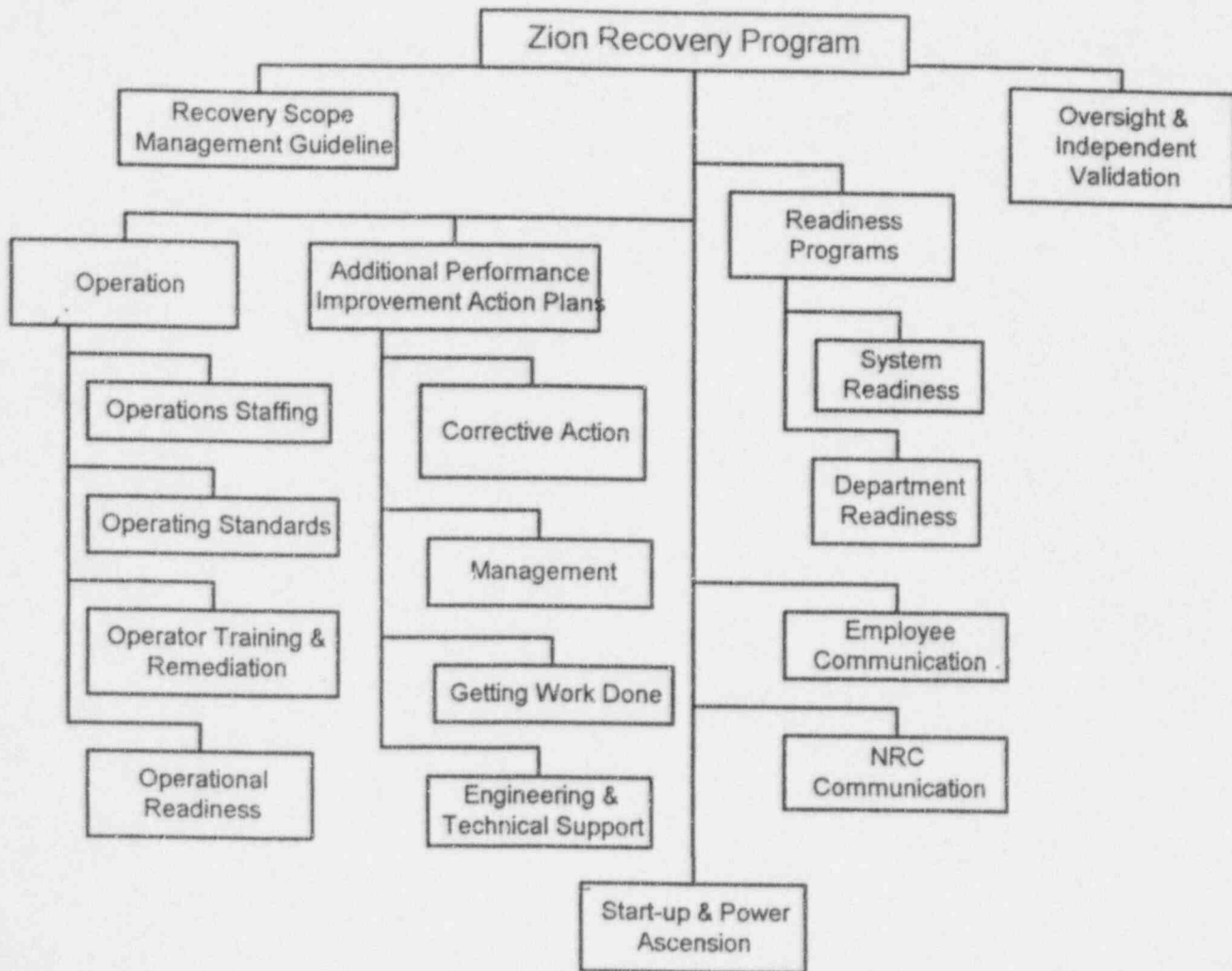
Objectives

- Step Change in Operations Performance
- Establish Readiness to Start-Up and Operate Safely
- Demonstrate Readiness

FOCUS IS:

- Operations (Standards, Roles and Responsibilities)
- Support for Operations

RECOVERY PLAN ELEMENTS



Zion Station Presentation

NRC Restart Panel

June 2, 1997

AGENDA

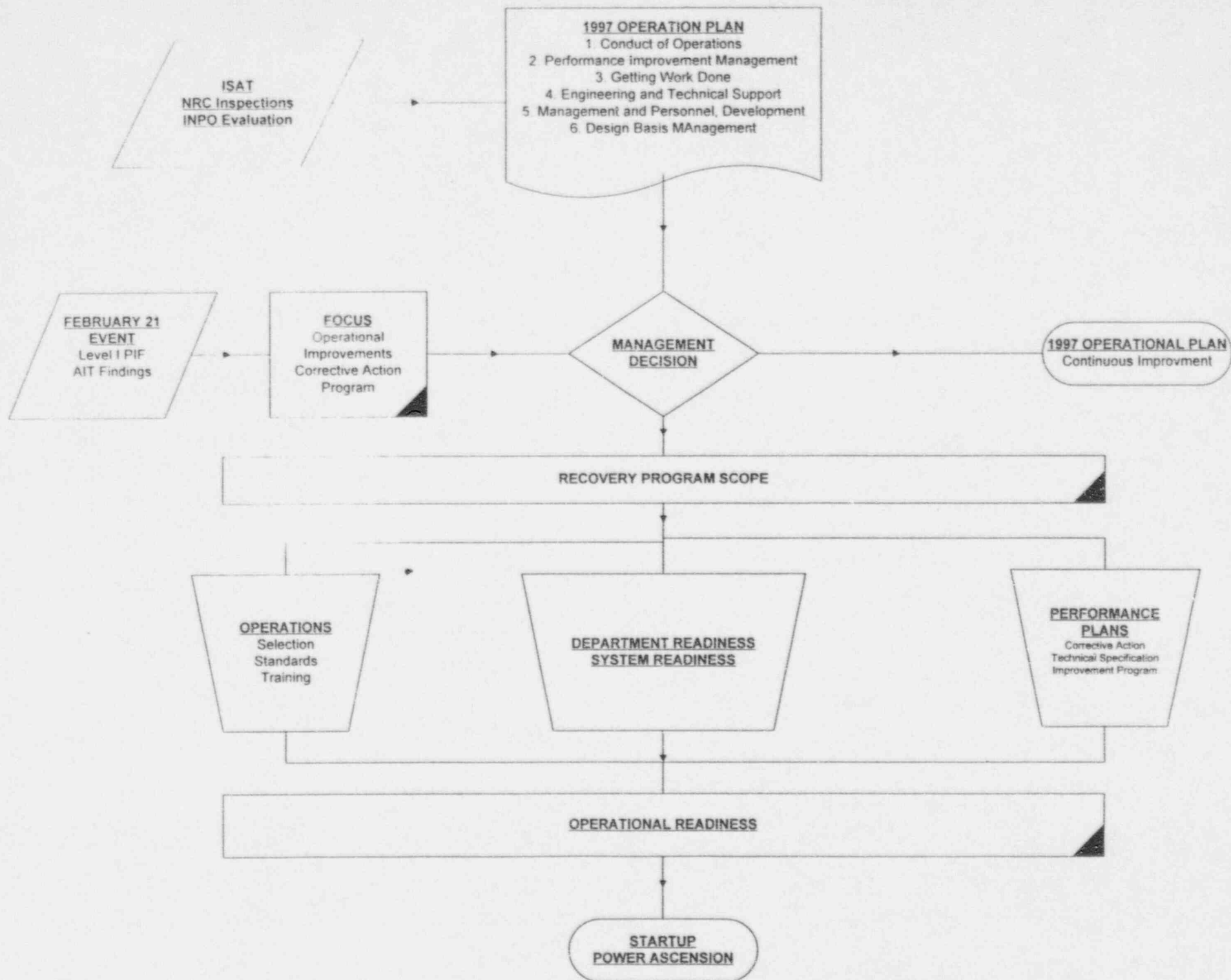
- Introduction
- Recovery Plan Overview
- CAL Issues
- CAL Commitments
- CAL Issues Matrix
- Recovery Plan Progress and Results
- Summary

Introduction

J. Mueller

Recovery Plan Objectives

- Step Change in Operations Performance
- Implement Improvements to the C/A Program
- Validate Equipment/System Readiness
- Reduce Operator Challenges
- Demonstrate Operations Improved Performance
- Demonstrate Management Effectiveness
- Oversight for Assurance of Results



CAL Issues

- **Inadequate Standards of Operations Performance**
 - » Plant Staff Safety Focus
 - » Supervisor Oversight
 - » Control Room Decorum and Distractions
 - » Communications within Crew and in Operations
 - » Human Performance
 - » Failure to Pre-Plan the Shutdown
 - » Procedure Quality and Adherence
- **Licensed Operator Knowledge & Training Deficiencies**
 - » Operator Understanding of Expectations for Reactivity Control
- **Deficiencies in Engineering Support To Operations**
- **Material Condition Issues Affecting Start-up**

CAL Commitments

- Place Unit 1 in Cold Shutdown - **Complete**
- Maintain Unit 2 in Cold Shutdown - **Ongoing**
- Remove Involved Operators from Licensed Duties - **Complete**
- Establish a team to determine Root Cause - **Complete**
- Evaluate Results of Event Assessment/Develop Remediation Plan - **Complete**
- Establish Quantitative and Qualitative Criteria to Assess/Monitor Effectiveness of Recovery Plan - **Complete**
- Transmit Plan to NRC for Formal Public Docketing - **Pending**
- Implement Remediation Plan Steps prior to Start-up of either Unit - **Pending**
- Document Longer Term Actions with projected Implementation dates - **Pending**

Training Staff Deficiencies

- Independently Assessed (Level One Investigation)
 - » 6 Instructors Evaluated
 - » Tested Knowledge & Application of Reactor Fundamentals
 - » Found "The knowledge of the instructors was toward the higher end of the scale and of sufficient level to provide effective training."
- Conclude that Upgraded Training of Training Staff is not necessary prior to Restart

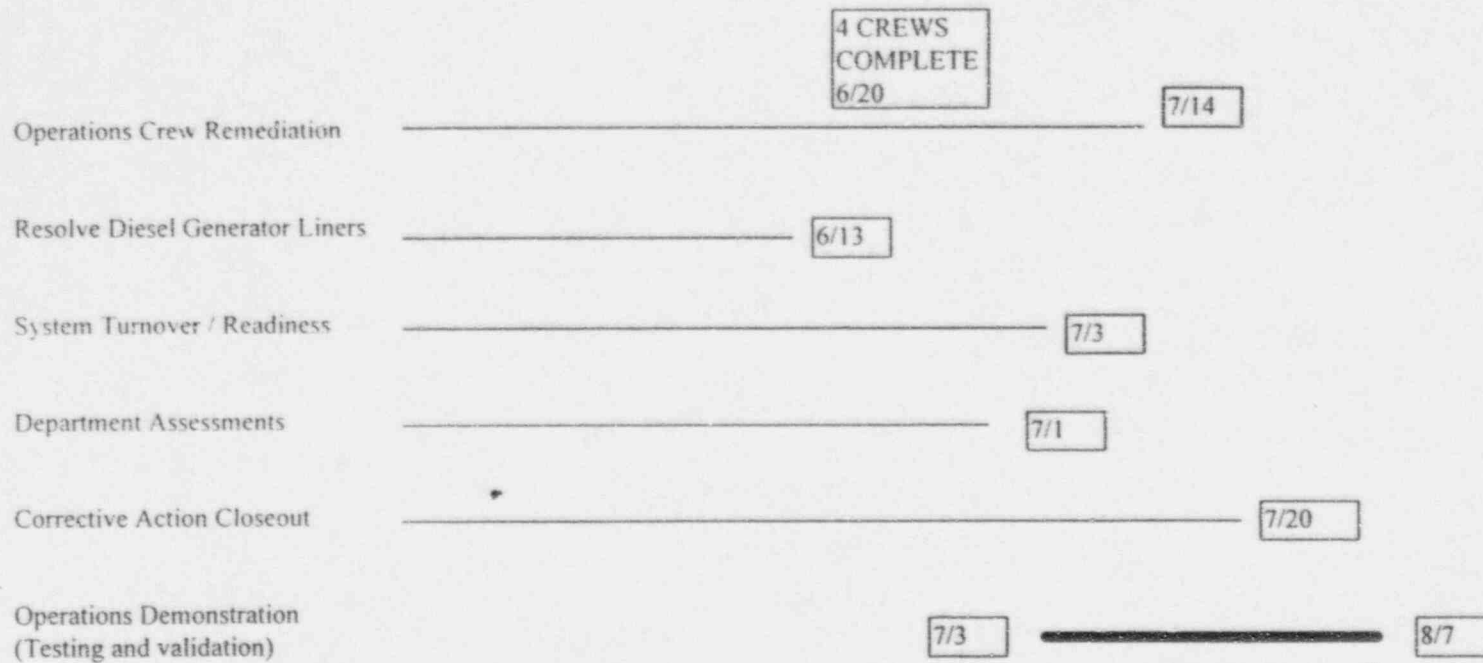
CAL ISSUE MATRIX

Action Plan	Item	Item Number
CAL ISSUE	2	OPERATOR REMEDIATION AND TRAINING PROGRAM
	2.5	Develop roles & responsibilities (Position Descriptions) for Operator's Shift personnel
	2.6	Develop roles & responsibilities (Position Descriptions) for Operator's support personnel
	2.9	Develop Materials (fundamentals; normal; abnormal and emergency operations)
	2.13	Establish Restart (JIT) training requirements
	2.15	Implement the Remedial Training
	3	OPERATIONS STANDARDS AND EXPECTATIONS
	3.1	Formulate and publish the Operational Standards
	3.2	Conduct Just-In-Time Training for the Operating Crews
	3.3	Conduct formal classroom and simulator training incorporating these Standards
	4	OPERATIONAL READINESS
	4.4	Conduct OPERATIONAL READINESS PROGRAM in accordance with approved Schedule
	5	PROCEDURES
	5.1	Revise written expectations for procedure use and adherence and incorporate into ZAP300.02
	5.2	Incorporate expectations into the Operator Remediation and Training Program
	5.5	Exercise selected GOPs in PHOENIX simulator training and correct all noted deficiencies. Evaluate future corrective actions
	5.6	Exercise selected AOPs in PHOENIX training and correct all noted deficiencies. Evaluate future corrective actions
	6.1	Operability Determinations
	6.1.1	Revise ZODM-O
	6.1.2	Review Operability Determinations
	6.1.4	Prepare and issue a more user friendly Operability Determination Procedure
	6.1.5	Revise all open Operability Determinations IAW new procedure
	6.2.2	Prepare Interface Agreement between SE and Operations
	9	OFF-SHIFT MANAGEMENT COMMAND & CONTROL
	9.1	Establish command & control competencies
	9.2	Define off-shift management population
	9.4	Conduct sessions with off-shift management to explain desired behaviors
	9.7	Conduct second Assessment
		SUPERVISOR OVERSIGHT
		CREW COMMUNICATIONS
		PROCEDURE ADHERENCE & QUALITY
		PLANT STAFF SAFETY FOCUS
		CONTROL ROOM DECORUM
		OPERATOR EXPECTATIONS FOR REACTIVITY CONTROL
		COMMAND & CONTROL BY OPERATIONS SUPERVISION
		COMMUNICATIONS IN OPERATIONS
		PRE-PLAN SHUTDOWN EVOLUTION
		LICENSE OPERATOR KNOWLEDGE & TRAINING DEFICIENCIES & (if necessary) TRAINING STAFF
		HUMAN PERFORMANCE OF OPERATIONS
		ENGINEERING SUPPORT TO OPERATIONS
		MATERIAL CONDITIONS AFFECT STARTUP
		CONTROL ROOM DISTRACTIONS
		Conduct second Assessment
		Conduct sessions with off-shift management to explain desired behaviors
		Define off-shift management population
		Establish command & control competencies
		OFF-SHIFT MANAGEMENT COMMAND & CONTROL
		Prepare Interface Agreement between SE and Operations
		IAW new procedure
		Revise all open Operability Determinations
		Operability Determination Procedure
		Prepare and issue a more user friendly Operability Determination Procedure

CAL ISSUE MATRIX

Action Plan Item Number	Item
12.8	SCV CRG & CARB ASSESSMENT & VALIDATION Perform an assessment of the CRG & CARB processes and validate the effectiveness of the corrective action program implementation concerning with respect to identification, timeliness and prioritization of issues.
12.8.1	SUPERVISOR OVERSIGHT
	CREW COMMUNICATIONS
	PROCEDURE ADHERENCE & QUALITY
	PLANT STAFF SAFETY FOCUS
	CONTROL ROOM DECORUM
	OPERATOR EXPECTATIONS FOR REACTIVITY CONTROL
	COMMAND & CONTROL BY OPERATIONS SUPERVISION
	COMMUNICATIONS IN OPERATIONS
	PRE-PLAN SHUTDOWN EVOLUTION
	LICENSE OPERATOR KNOWLEDGE & TRAINING DEFICIENCIES & (if necessary) TRAINING STAFF
	HUMAN PERFORMANCE OF OPERATIONS
	ENGINEERING SUPPORT TO OPERATIONS
	MATERIAL CONDITIONS AFFECT STARTUP
	CONTROL ROOM DISTRACTIONS

ZION STATION UNIT - 2 RECOVERY PLAN



•
**Management
Decision for
Restart**

Recovery Plan Progress

- ***Action Steps in Closure***

- » 2.5 - Develop Roles & Responsibilities
(Position Descriptions) for Operation's
Shift personnel
- » 2.6 - Develop Roles & Responsibilities
(Position Descriptions) for Operation's
Support personnel
- » 2.9 - Develop Training Materials (fundamentals,
normal, abnormal, & emergency operations)
- » 3.1 - Formulate and publish Operational Standards

Recovery Plan Progress

- ***Action Steps in Closure***

- » 3.2 - Conduct Just-In-Time Training for the Operating Crews
- » 4.0 - Operational Demonstration Plan & Scope
- » 6.1.2 - Review Operability Determinations
- » Material Condition - System Readiness Reviews and Work Scope

Results

- *Phoenix Training*
- *Operations Work Control Center*
- *Control Room Formality/Standards*
- *Work Control Improvements*
- *Work Scope Identification*

System Readiness Reviews and Work Scope

System Affirmation - Initial Scope

- 16 plant systems affirmed by the assigned System Engineer
 - 12 system reaffirmation's (originally done in January)
 - 4 additional systems selected by Operations

System Affirmation - Process

- Backlog review and detailed team system walkdown
- Backlog review of affirmed areas since initial affirmation
- Meeting the Restart Committee screening criteria
- Presentation to Restart Committee

System Readiness Reviews and Work Scope

System Review Guideline

- Backlog Review
 - AR's reviewed
 - WR's reviewed
 - ER's reviewed
 - PIF's reviewed
 - Operator Work Arounds reviewed
 - Temp Alts reviewed
 - Degraded equipment reviewed
- Commitment / NTS Open Items
- AR's written from System Walkdown
- WR's processed from System Walkdown
- Overall assessment / analysis of items found during walkdown
- Significant issues requiring attention
- Overall health and reliability of the system

System Readiness Reviews and Work Scope

Additional Areas Reviewed by the Restart Committee

- Red Window Systems
- Plant Ventilation Systems
- Radiation Monitoring System
- All Temporary Alterations
- All Operator Work Arounds
- All Operability Assessments
- All Design Changes
- All Engineering Requests
- Fire Protection System
- Various Station Programs

System Readiness Reviews and Work Scope

Conclusion

- Management establishes expectations for System Ownership
- System Engineers like the process: discuss issues with Management
- No generic issues were identified
- Significant Restart issues uncovered
- Final walkdowns be performed and a signed system affirmation be presented to the Restart Committee prior to restart

Strategy: Unit 2 Restart

Action Plan Title: Restart Scope Management Guideline & Criteria

Objective Measured: Operability Assessments

Indicator Description:

Plan Owner: Bryant Giffin

Definition: Operability Assessments requiring closure for Unit 2 restart

Goal = ≤ 8 Open Operability Assessments
24 of the total station 46 will require actions applicable to U2 complete prior to restart

Trend / Analysis:

Curves may fluctuate as new OA's are generated; present progress satisfactory

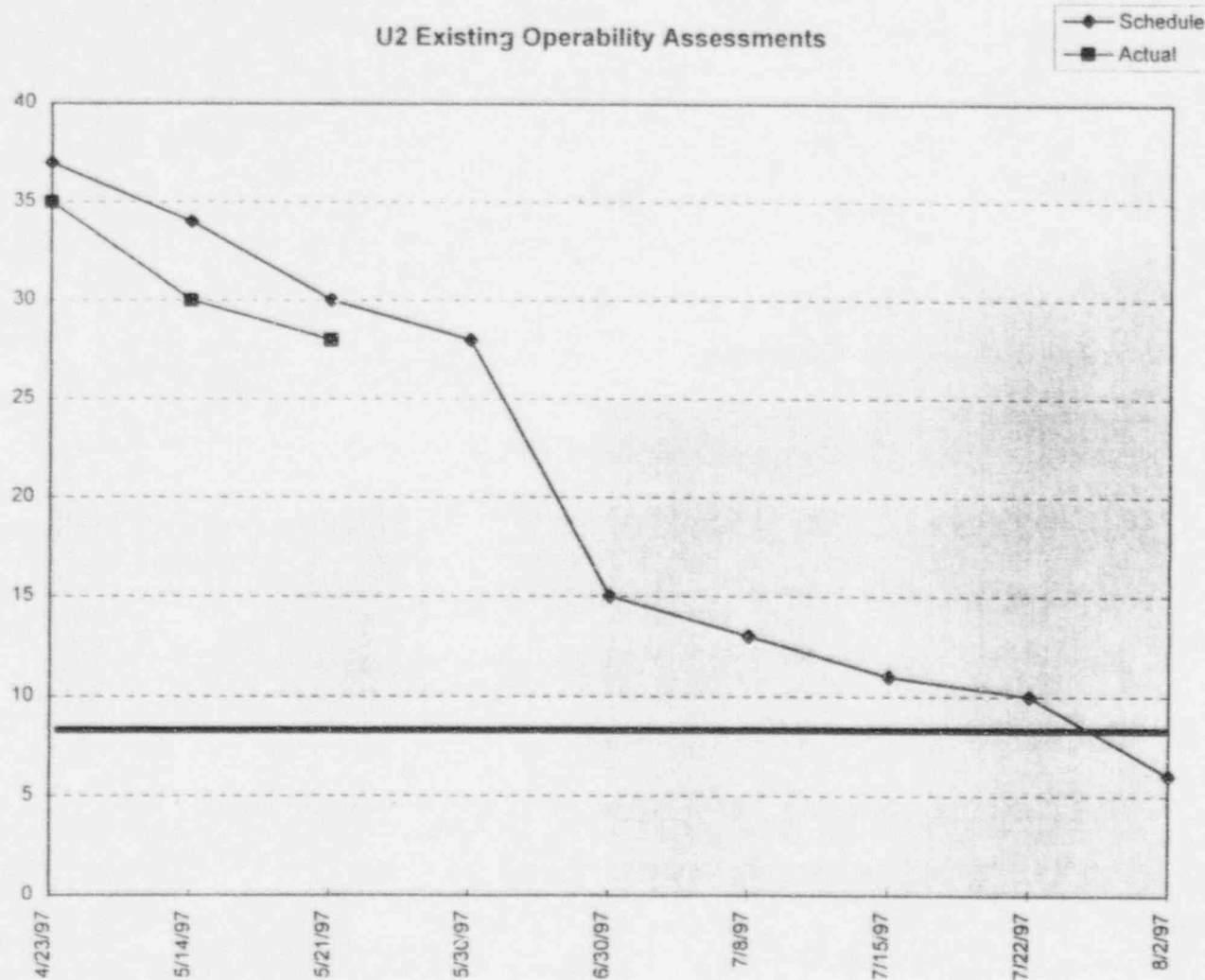
Actions to Correct:

24 of 30 related to Unit 2 will be closed (for U2) prior to startup

The 6 remaining open (for U2) are:

1. 9500530 - Pressure locking of 2MOVSI9011
2. 9504435 - Pressure locking of 2MOV-CS0049 & 0050
3. 9504439 - Pressure locking of 2MOV SI8812A
4. 9604802 - RCFCs susceptible to SW waterhammer (Generic Letter 96-06
5. 9606789 - GL 96-06 heating of pipes and CIVS inside containment
6. 9701032 - Reroll of S/G tubes

U2 Existing Operability Assessments



Strategy: Unit 2 Restart

Action Plan Title: Restart Scope Management Guideline & Criteria

Objective Measured: Operator Work Arounds

Indicator Description:

Plan Owner: George Vanderheyden

Definition: An equipment deficiency significantly affecting or potentially affecting operations or causing operators to perform significant compensatory actions.

Goal = ≤ 10 Operator Work Arounds on Unit 2 & Common Unit

Trend / Analysis: On Schedule

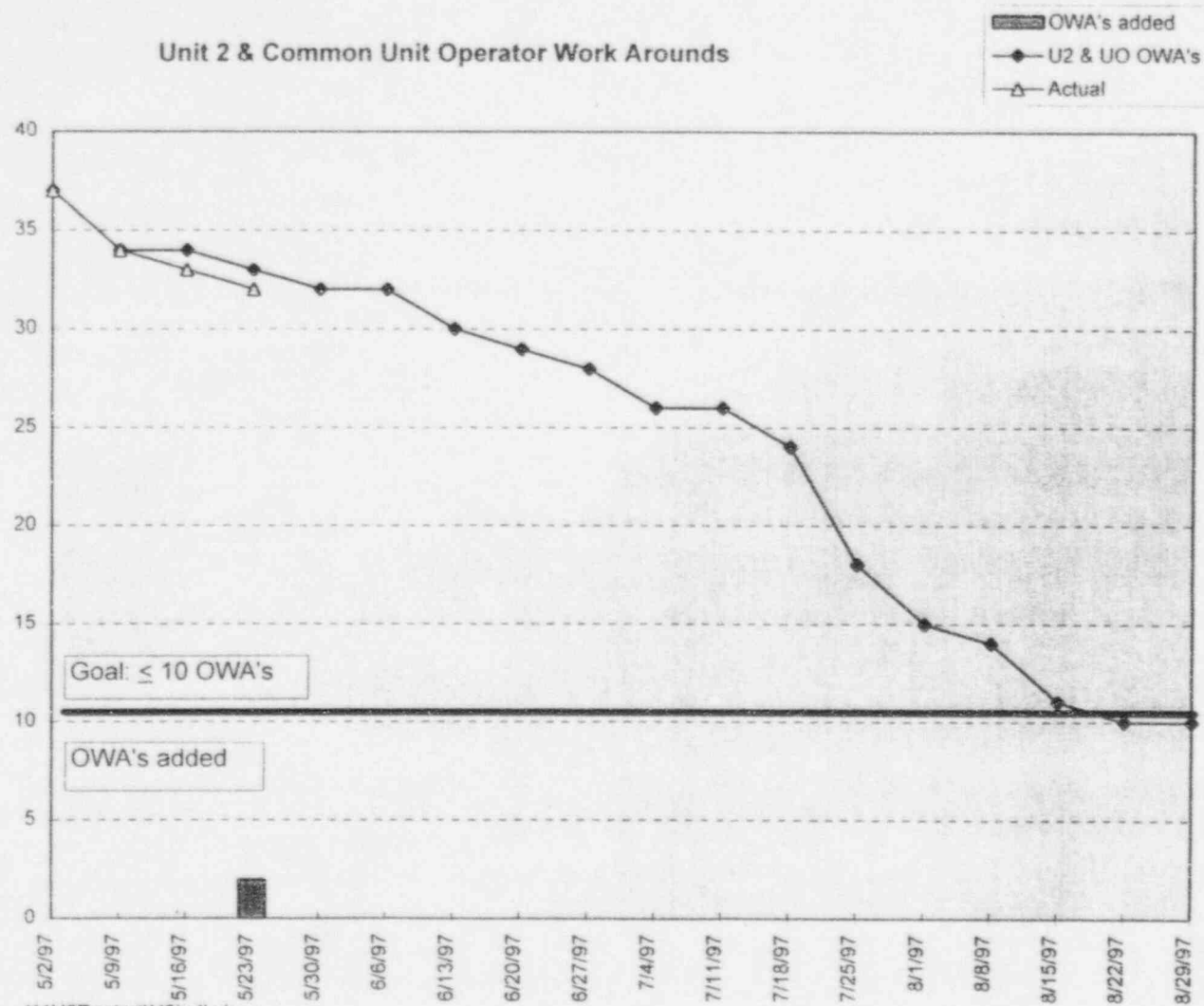
Closed 1 OWA ahead of schedule.

Actions to Correct:

- Behind on closeout of OWA 221, blowdown transfer pump, due to additional work scope. Will complete by 5/30/97.

- Putting together plans for 2 new OWA's. Scope determined by 5/30/97.

Unit 2 & Common Unit Operator Work Arounds



K:\U2Restart\U2indi.xls
6/2/97 9:53 AM

Revised: 5/28/97

Strategy Unit 2 Restart

Action Plan Title: Restart Scope Management Guideline & Criteria

Objective Measured: Control Room Annunciators

Indicator Description:

Plan Owner: Bill Kurth

Definition: Number of work requests and action requests against Control Room Annunciators

Goal = Less than 4 lit at 100% power

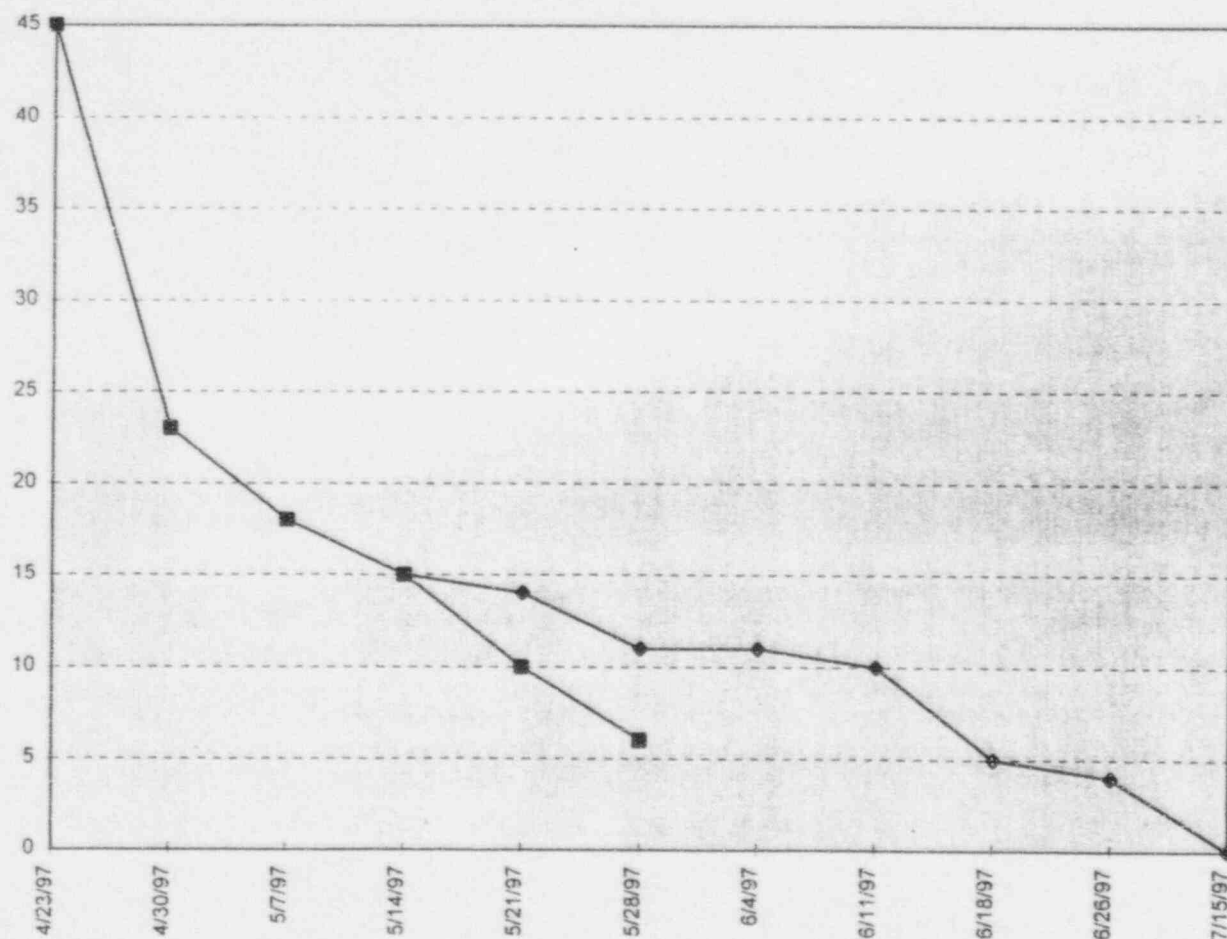
Trend / Analysis:

The total number of work requests & action requests for Control Room Annunciators is 45.

Actions to Correct:

Control Room Annunciator
Deficiencies

◆ Schedule
■ Actual



K:\U2Restart\U2indi.xls
6/2/97 10:00 AM

Revised: 5/27/97

Strategy:	Unit 2 Restart
Action Plan Title:	Restart Scope Management Guideline & Criteria
Objective Measured:	Caution Cards
Indicator Description:	
Plan Owner:	Ray Landrum

Definition: Open Unit 0 & 2 caution cards

Goal = < 10 at Mode 2 to 1

Trend / Analysis:

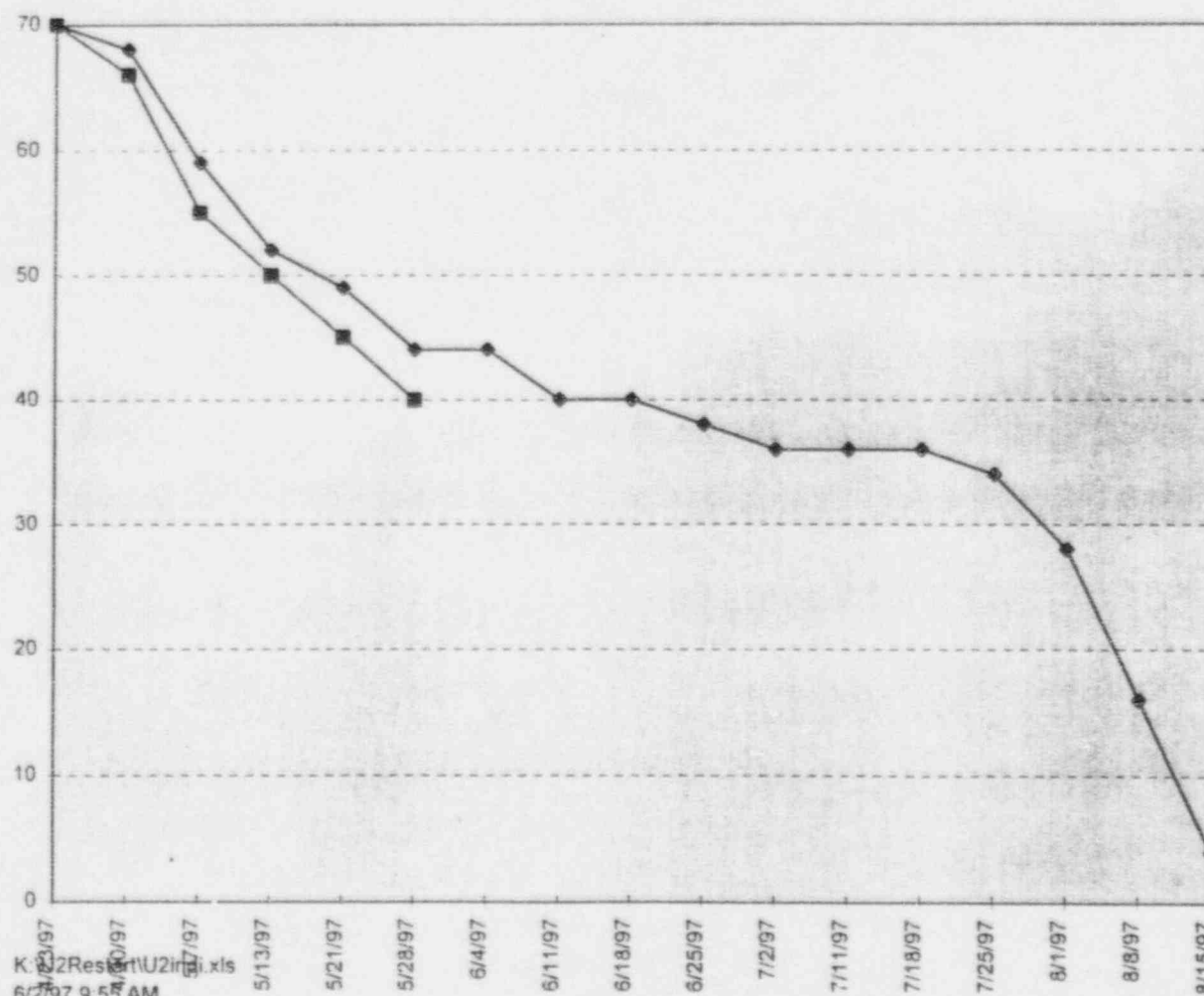
Actions to Correct:

70 caution cards to close by 100% power

26 Caution Cards are associated with
GOP/MI steps and will be closed accordingly.

Caution Cards

◆ Projected
■ Actual



K:\22Restart\U2in\i.xls
6/2/97 9:55 AM

Revised: 5/27/97

Strategy: Unit 2 Restart**Action Plan Title:** Restart Scope Management Guideline & Criteria**Objective Measured:** Open Out of Services**Indicator Description:** Identifies the number of OOS's on Unit 0 & 2**Plan Owner:** Ray Landrum**Definition:** Open Out of Services requiring closure by Unit 2 restart**Goal** = ≤ 10 at Mode 2 to 1**Trend / Analysis:****Actions to Correct:**

Baseline OOS's: 136

Work in Progress: 43

Not scheduled: 13

Admin OOS: 68

Procedure Req: 12

Removed on sys S/U: 15

4/29/97 OOS's: 170

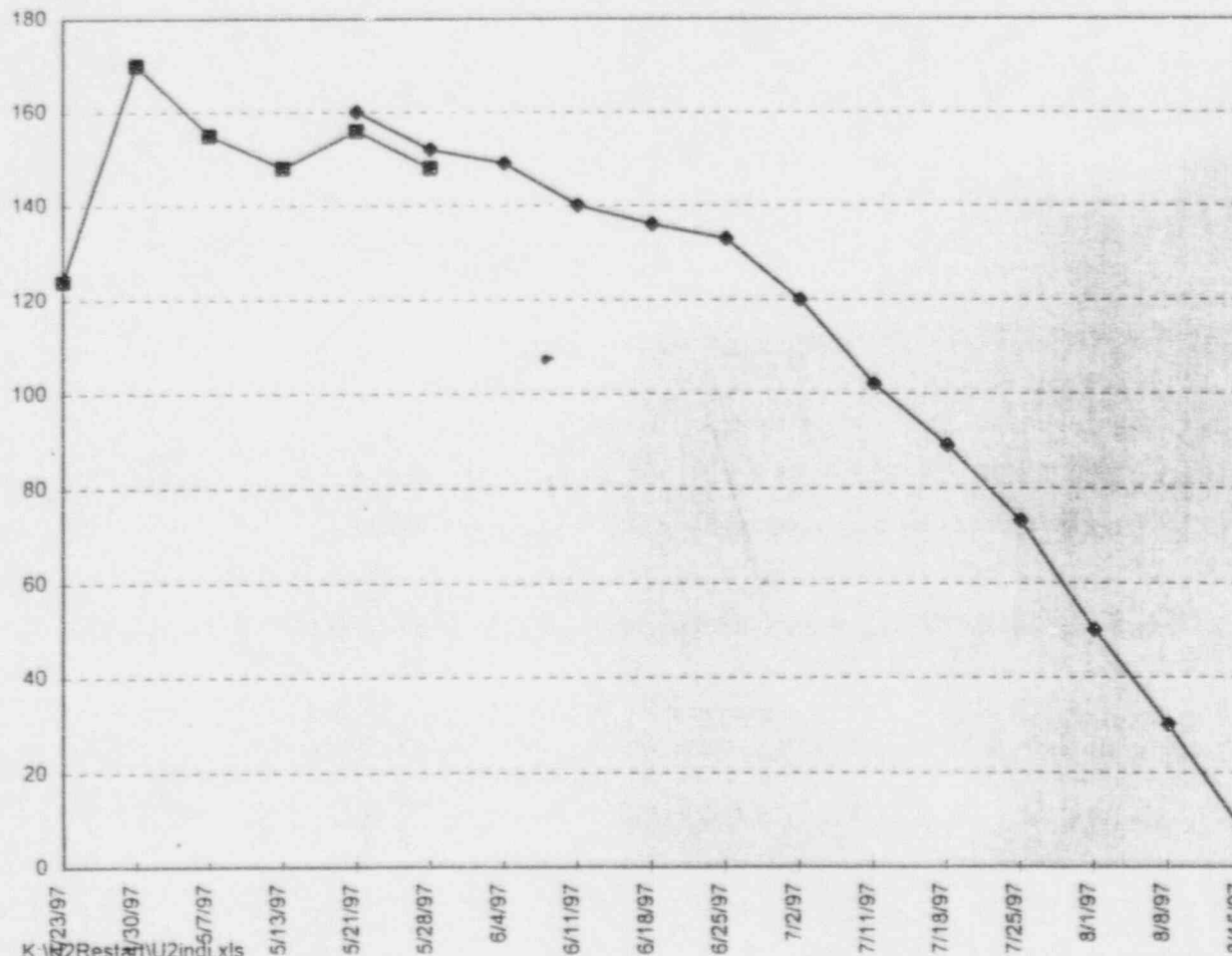
5/6/97 OOS's: 155

5/13/97 OOS's: 148

5/21/97 OOS's: 156

Open OOS's

—●— Projected
 —■— Actual



Strategy Unit 2 Restart

Action Plan Title: Restart Scope Management Guideline & Criteria

Objective Measured: Temp Alts

Indicator Description:

Plan Owner: Bryant Giffin

Definition: Number of Temporary Alterations on Unit 0 & 2.

Goal = ≤ 3 Open Temp Alts

Trend / Analysis:

Actions to Correct:

6 of 9 will close

1. Three TA's will remain open
93-004 Raw water leakoff line
95-031 Circ water pump cooling supply
96-084 2A RCP

Closed to date = 3

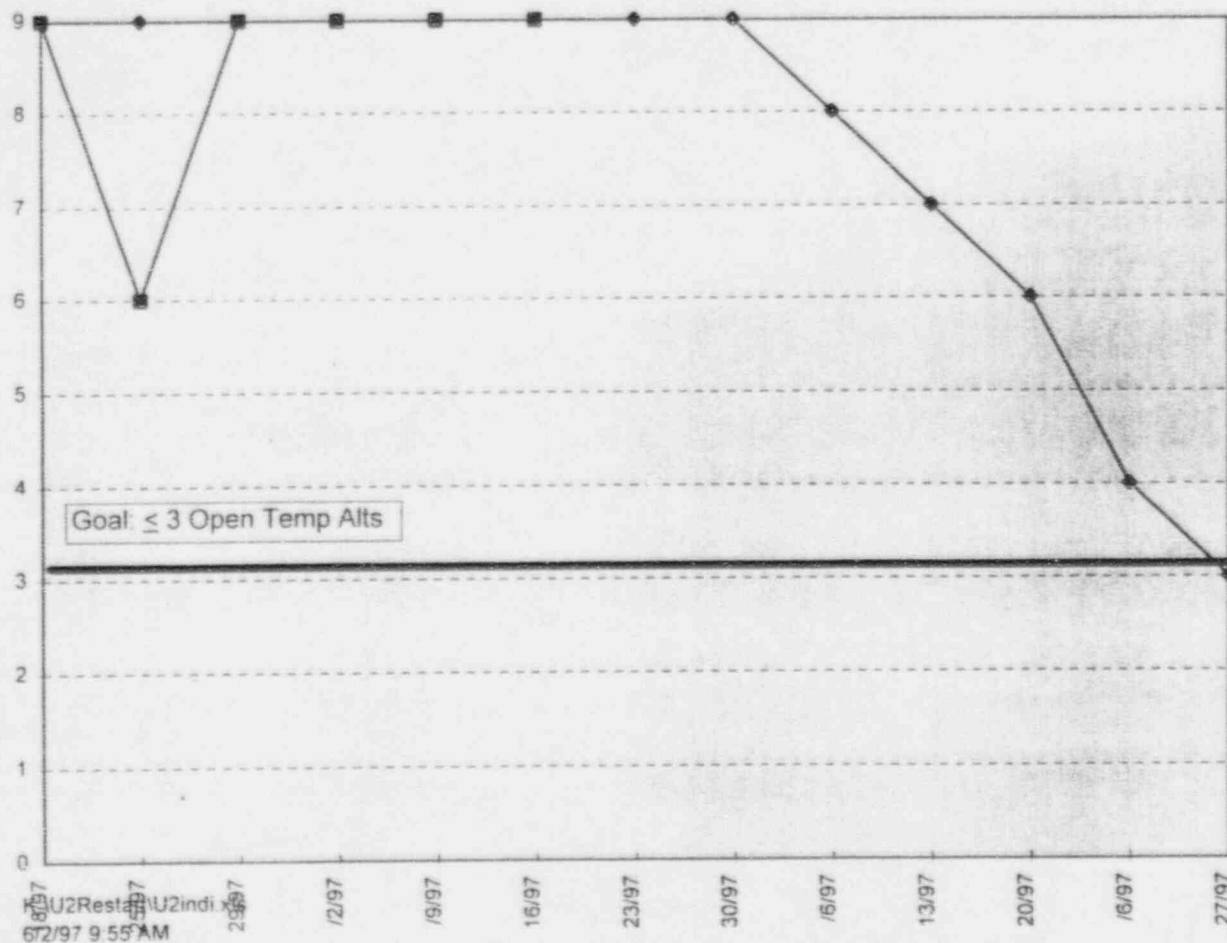
Added 4/29/97 = 3

Left to disposition = 4

- 96-002 will close 6/2/97. DP fan trips
- 96-037 will close in Mode 4, RAPS cable
- 97-011 WC to schedule ABFDAT temp pp
- 97-014 will close 6/20/97 DG vibration trips
- 97-007 Accumulator scaffolding
- 97-017 CC inlet valves to RHR Hx

Temp Alts

—●— Schedule
—■— Actual



Strategy: Unit 2 Restart

Action Plan Title: Restart Scope Management Guideline & Criteria

Objective Measured: Control Room Deficiencies

Indicator Description:

Plan Owner: Dave Bump / Mark Schimmel

Definition: Any Control Room component with an open work request or action request

Goal = < 10

Trend / Analysis:

2 completed during the week of May 19..

Actions to Correct:

56 Control Room deficiencies were initially identified.

To date: 36 have been completed (including 8 awaiting PMT)

The 20 remaining are:

19 WRs -

11 scheduled to complete by 7/2/97

2 are no longer restart issues

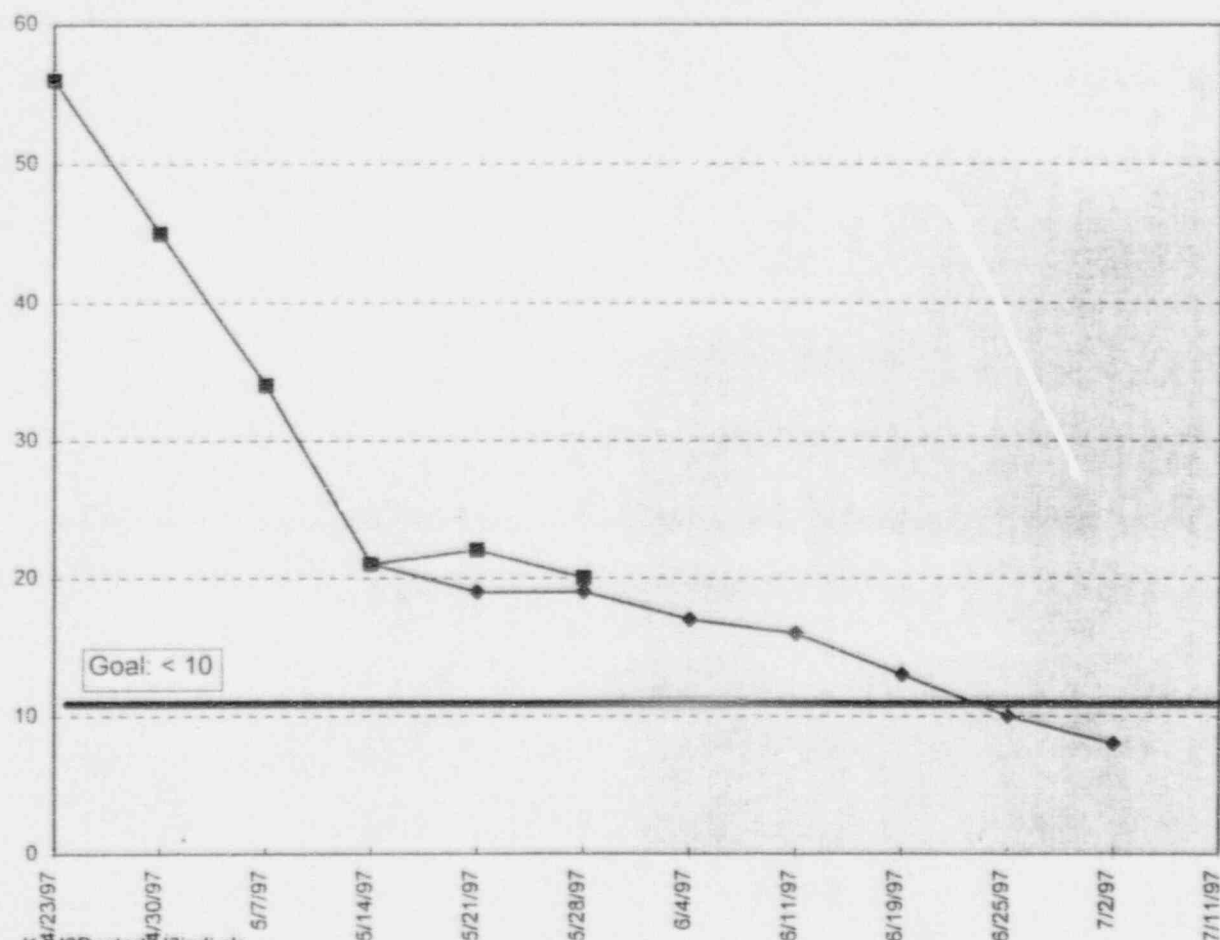
4 are not scheduled

3 are scheduled to complete 7/7/97, 8/4/97, and 8/7/97

1 AR for minor maintenance
(Chlorination System painting)

Control Room Deficiencies

◆ Schedule
■ Actual



Strategy: Unit 2 Restart

Action Plan Title: Restart Scope Management Guideline & Criteria

Objective Measured: Design Changes

Indicator Description:

Plan Owner: Frank Gogliotti

Definition: Design Changes identified by the Restart Committee

Goal = Meet Schedule Dates for MAL Issued.

Trend / Analysis:

Actions to Correct:

Met with Senior Management 5/12/96.
Established design changes to be included in the restart scope. Currently there are 86 Design Changes that have been identified for Unit 2 Restart.

33 Total in Engineering

10 - Operator Workarounds

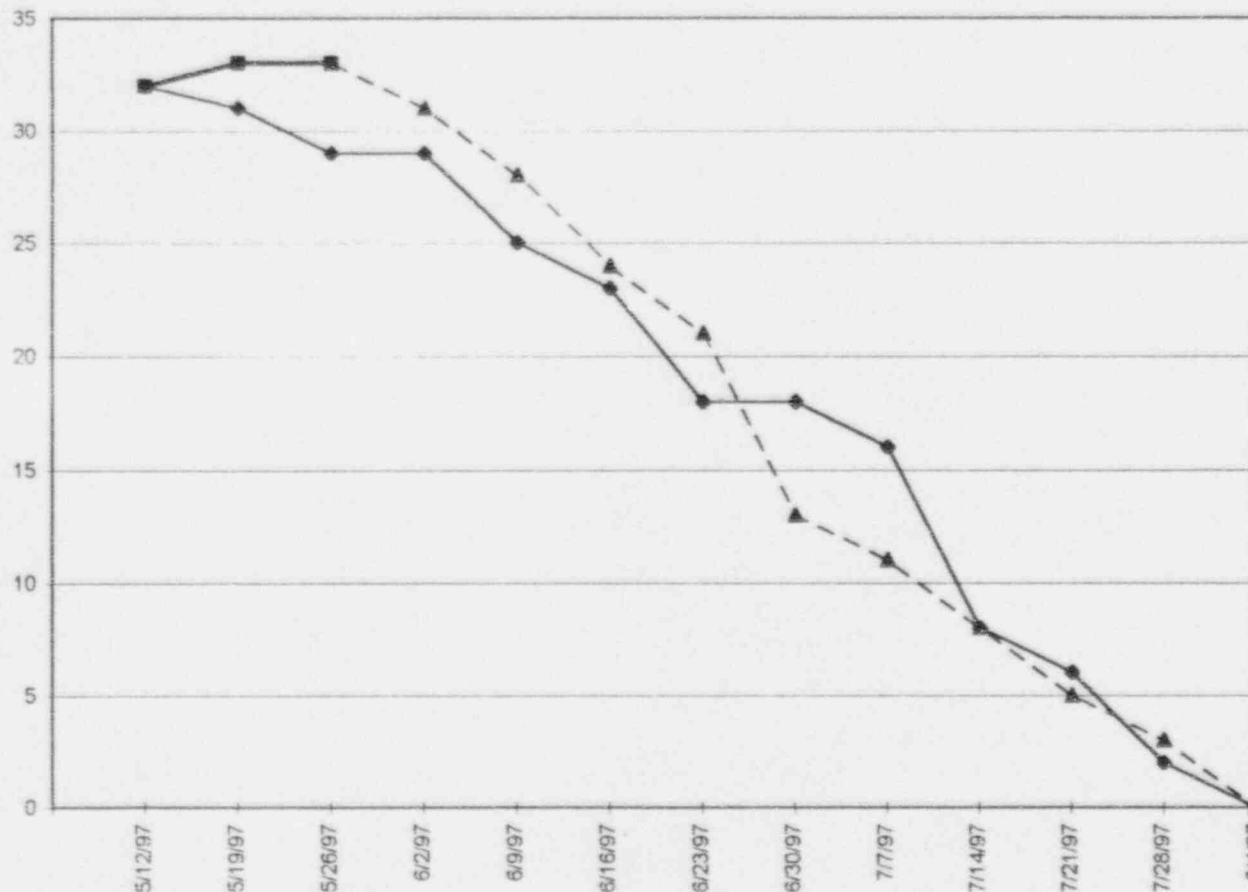
18 - Engineering Requests

5 - Pending DCPs

53 in various stages of installation.

Note: 1 OWA was completed, 1 DCN was added by the Restart Committee

Design Changes in Engineering



Strategy: Unit 2 Restart

Action Plan Title: Restart Scope Management Guideline & Criteria

Objective Measured: Open ER's

Indicator Description: Schedule date for ER closure

Plan Owner: Frank Gogliotti

Definition: Open engineering requests requiring closure prior to Unit 2 restart

Goal = ZERO by due date

Trend / Analysis:

Actions to Correct:

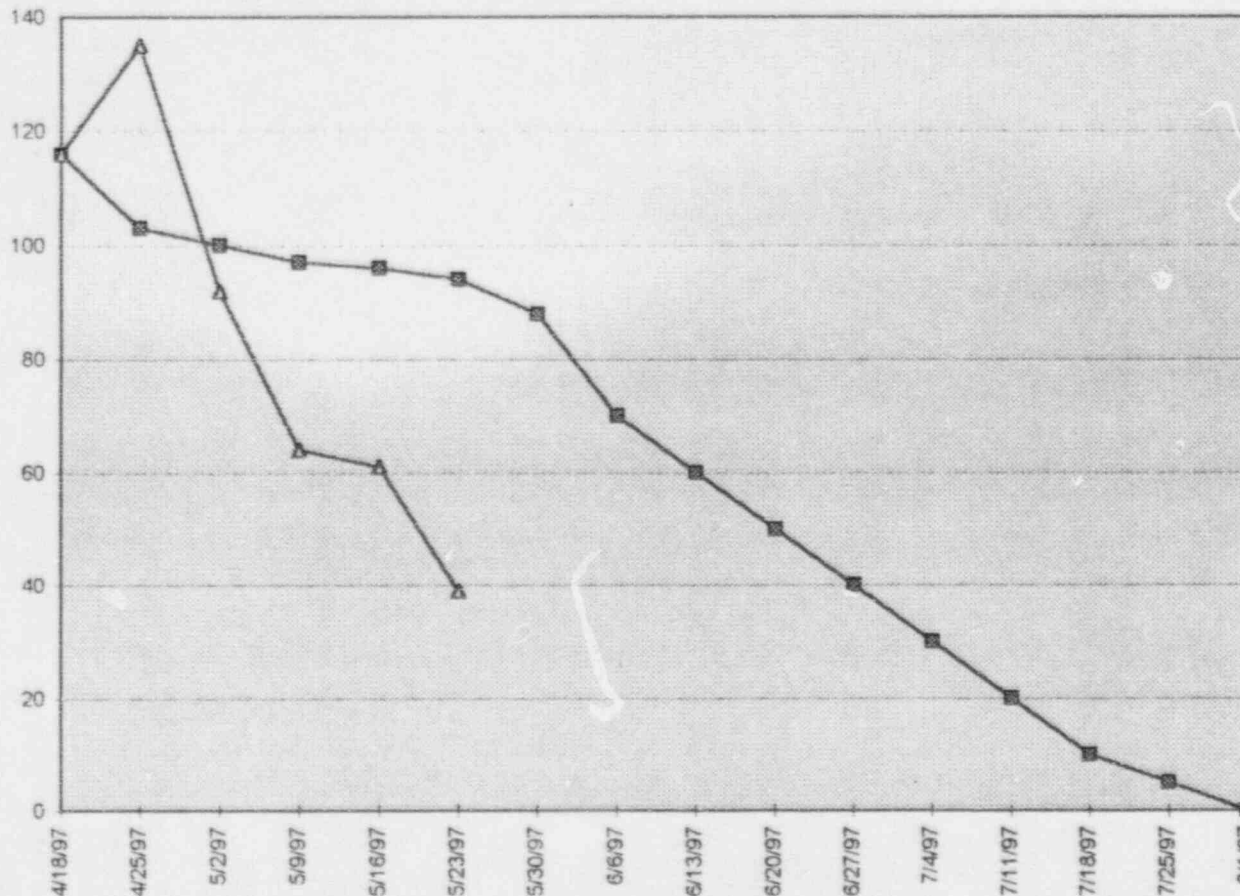
Prioritize those impacting physical work in the plant.

Work with WCC to plan/prioritize based on upcoming work windows.

35 ERs completed to date.

Open Engineering Requests

—■— Projected
—▲— Actual



Summary

J. Mueller