

May 12, 1997

LICENSEE: NORTHEAST NUCLEAR ENERGY COMPANY (NNECO)

FACILITIES: Millstone Nuclear Power Station Units 1, 2, and 3 (50-245, 50-336, 50-423)

SUBJECT: SUMMARY OF THE APRIL 30, 1997, MEETING WITH NNECO TO DISCUSS  
PROGRESS OF LICENSEE ACTIVITIES TO SUPPORT RESTART OF THE  
THREE MILLSTONE UNITS

On April 30, 1997, the Special Project Office (SPO) staff of the Office of Nuclear Reactor Regulation (NRR) participated in a publicly observed meeting with Northeast Nuclear Energy Company (NNECO) representatives. The purpose of this meeting was to discuss the licensee's progress in facilitating restart of the three Millstone units. During this meeting, discussions were held on the licensee's progress for each of the three Millstone units, and an overview of the activities of the Nuclear Oversight organization and the Nuclear Safety Assessment Board (NSAB) were presented.

Attachment 1 provides a list of the principle attendees at the meeting. Attachment 2 provides the handout used by the licensee during its presentation to the NRC.

**ORIGINAL SIGNED BY:**

John A. Nakoski, ICAVP Program Coordinator  
ICAVP Oversight Branch  
Special Projects Office  
Office of Nuclear Reactor Regulation

Dockets Nos. 50-245, 50-336, and 50-423

Attachments: As Stated

cc w/att: See next page

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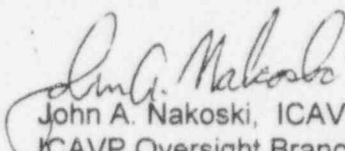
UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

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Millstone Nuclear Power Station  
Units 1, 2, and 3

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Millstone Nuclear Power Station  
Units 1, 2, and 3

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Mr. N. S. Carns  
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**LIST OF ATTENDEES**  
**April 30, 1997**

NAME	ORGANIZATION	POSITION
Jacque Durr	NRC	Chief, Inspection Branch, SPO
Steve Reynolds	NRC	Chief, Licensing Branch, SPO
Eugene Imbro	NRC	Deputy Director, ICAVP Oversight, SPO
William Travers	NRC	Director, SPO
Phil McKee	NRC	Deputy Director, Licensing, SPO
Wayne Lanning	NRC	Deputy Director, Inspections, SPO
Tony Cerne	NRC	Senior Resident Inspector - Millstone Unit 3
Dave Beaulieu	NRC	Senior Resident Inspector - Millstone Unit 2
Ted Easlick	NRC	Senior Resident Inspector - Millstone Unit 1
David M. Goebel	NNECO	Vice President - Nuclear Oversight
Michael Brothers	NNECO	Vice President - Millstone Unit 3
Neil S. Carns	NNECO	Senior Vice President and Chief Nuclear Officer
Pat Loftus	NNECO	Director - Regulatory Affairs for Millstone Station
Mario Bonaca	NNECO	Chairman, Nuclear Safety Assessment Board
Paul Hinnenkamp	NNECO	Millstone Unit 1 Recovery representative
Martin L. Bowling	NNECO	Millstone Unit 2 Recovery Officer

Northeast Utilities  
Presentation to the NRC  
Restart Assessment Panel

*Millstone Station  
April 30, 1997*

# Agenda

- Opening
- Nuclear Oversight
- Nuclear Safety Assessment  
Board
- Unit 3 Update
- Unit 2 Update
- Unit 1 Update
- Closing

*Buzz Carns*

*Dave Goebel*

*Mario Bonaca*

*Mike Brothers*

*Marty Bowling*

*Paul Hinnenkamp*

*Buzz Carns*

## Table of Contents

- Presentation Slides
- MP1 Reference Material
- MP2 Reference Material
- MP3 Reference Material
- MP2 IR 96-201 Summary
- MP3 IR 96-201 Summary

**Northeast Utilities Briefing  
for the NRC  
Restart Assessment Panel**

***Millstone Station  
April 30, 1997***

# Agenda

- ♦ Opening Remarks *Buzz Carns*
- ♦ Oversight *Dave Goebel*
- ♦ NSAB *Mario Bonaca*
- ♦ Unit 3 Update *Mike Brothers*
- ♦ Unit 2 Update *Marty Bowling*
- ♦ Unit 1 Update *Paul Hinnenkamp*
- ♦ Closing *Buzz Carns*



# **Nuclear Oversight**

**Dave Goebei**  
***Vice President***

# Success Is When The Oversight Function ...

- ♦ Is an integral part of management team assessments
- ♦ Results in meaningful findings, and provides assessments of programs and process through meaningful reports
- ♦ Finds evidence that reports are forwarded to the responsible manager and dealt with appropriately

# Success Is When The Oversight Function ...

- ♦ Is adequately staffed with qualified and experienced personnel
- ♦ Has clearly defined audit and surveillance programs that are proceduralized and implemented on schedule

# Key Tenants of Oversight

- ◆ Thoroughness of self assessments
- ◆ Intelligent intrusiveness of Nuclear Oversight
- ◆ Penetrating reviews performed by NSAB\*

*\*NSAB will be discussed separately*

# Changes In Nuclear Oversight

## Nuclear Oversight Is Implementing an Aggressive Recovery Plan With...

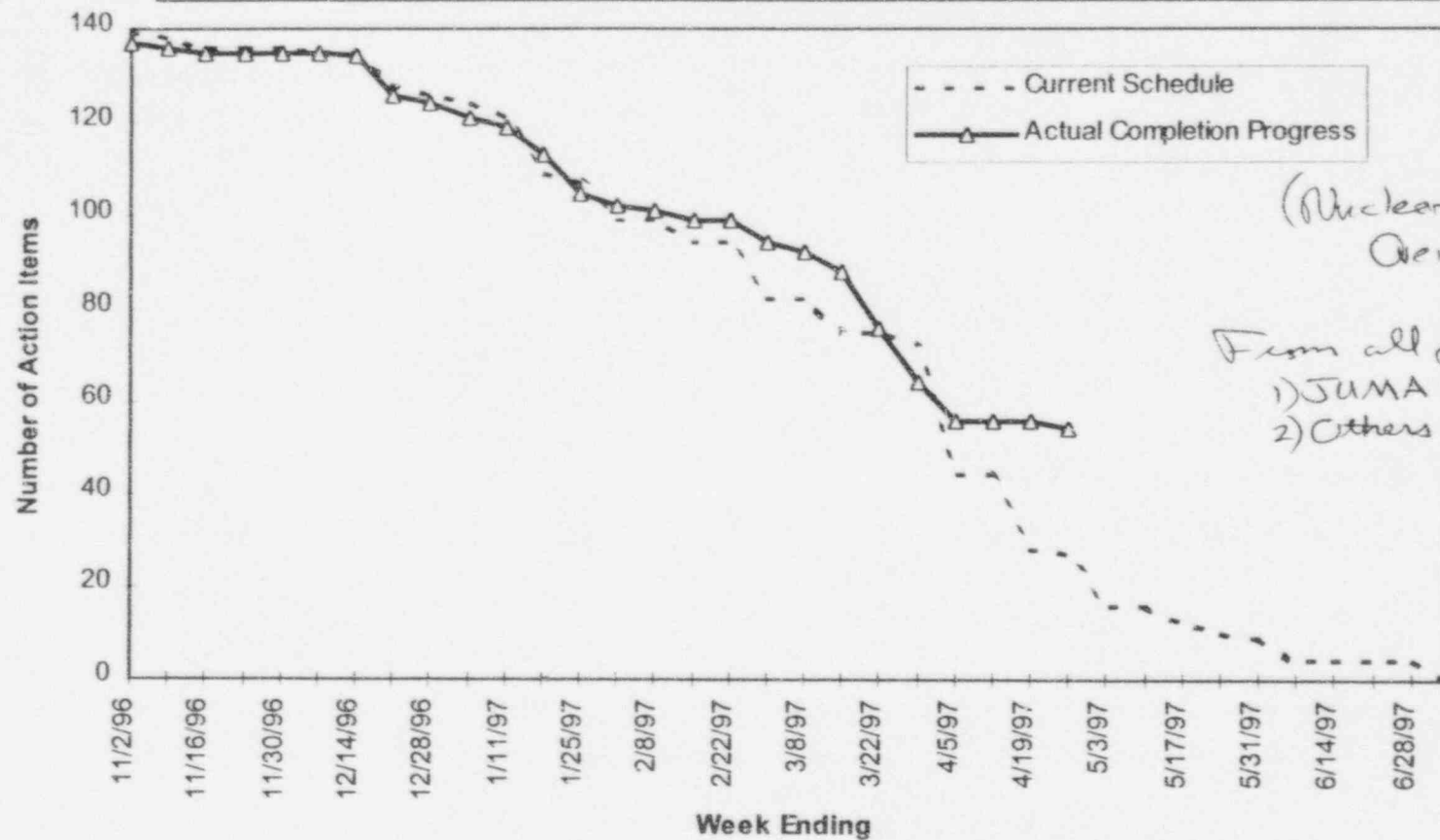
- Increased Number of Staff Positions
  - positions filled by permanent staff
  - line people rotating in
  - meetings being held regularly with the line to address Oversight-identified findings and observations
- Revised Oversight Procedures
  - new procedures communicate higher standards

## **Oversight Changes *(continued)***

- ♦ **Training and Qualification Programs**
  - *improved - new Training Advisory Councils established*
- ♦ **QA Hold Point Program Revised**
- ♦ **Accountability of Oversight Staff Increased**
  - *deal from facts, requirements-based*
- ♦ **Oversight Feedback to the Line Improved**
- ♦ **QA Topical Report Revised to Reflect Organizational Changes**



# Recovery Plan Action Item Work Off Curve



(Nuclear Oversight)

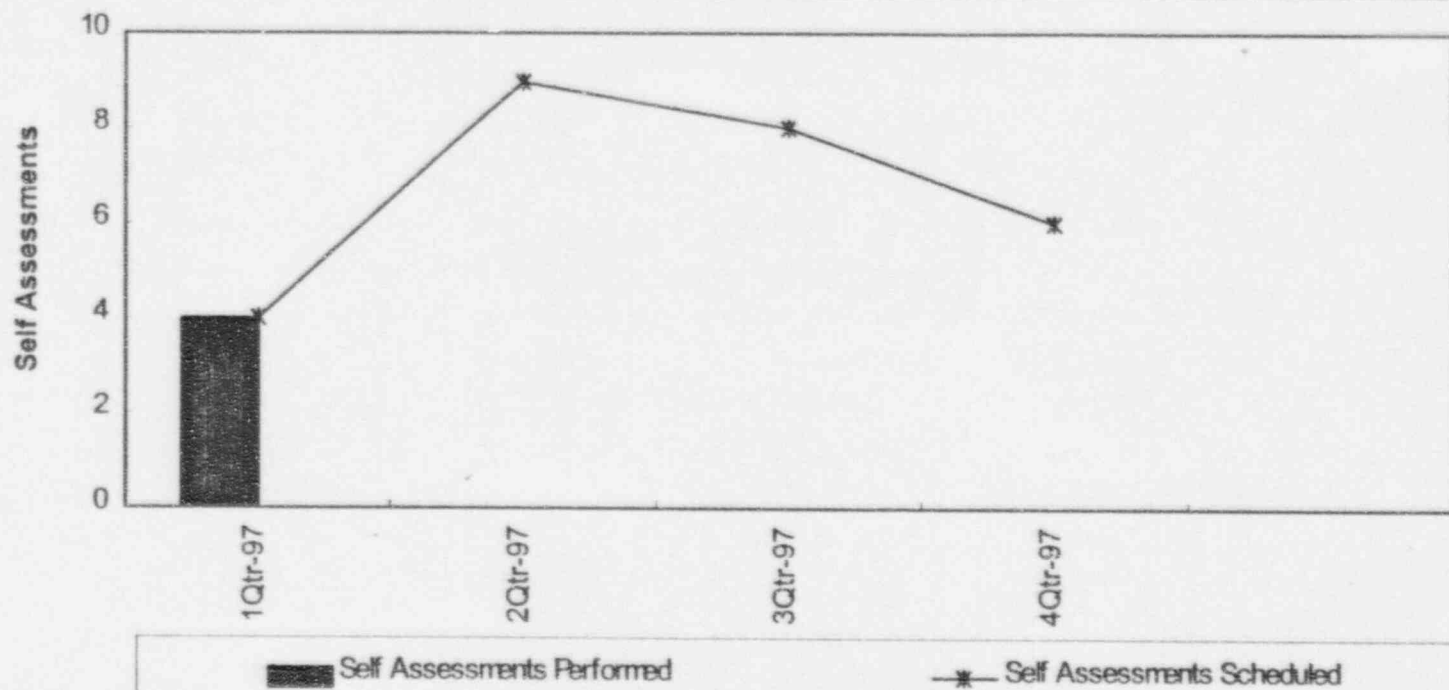
From all prior tools  
1) JUMA  
2) Others

# Self Assessment

## Nuclear Oversight S/A Issues Identified:

- Operational Experience backlog
- Audit records not properly transmitted to vault
- 50.54(f) staff training and qualification deficiencies identified
- The number of years of QA experience of PE management team is low
  - *PE developed a Mission Statement and a Strategic Plan based on feedback from S/A to address this*

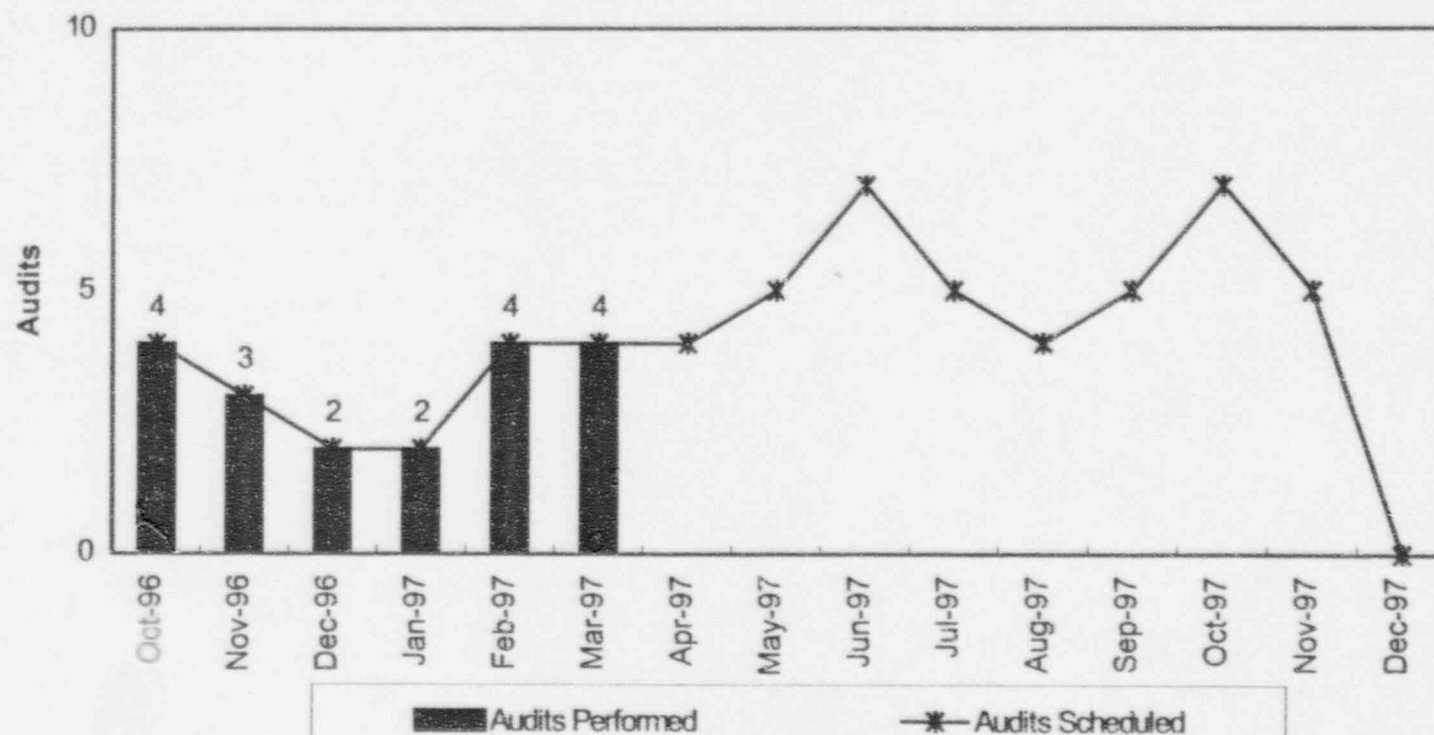
# Self Assessment Schedule Adherence



# **Self Assessment Challenges**

- ♦ **Units must demonstrate their Self Assessment Program can, and will, deliver quality results**
- ♦ **Continued management attention is needed to ensure improvements are long lasting**
- ♦ **Oversight needs to perform an increased number of self assessments**

# Audit Schedule Adherence

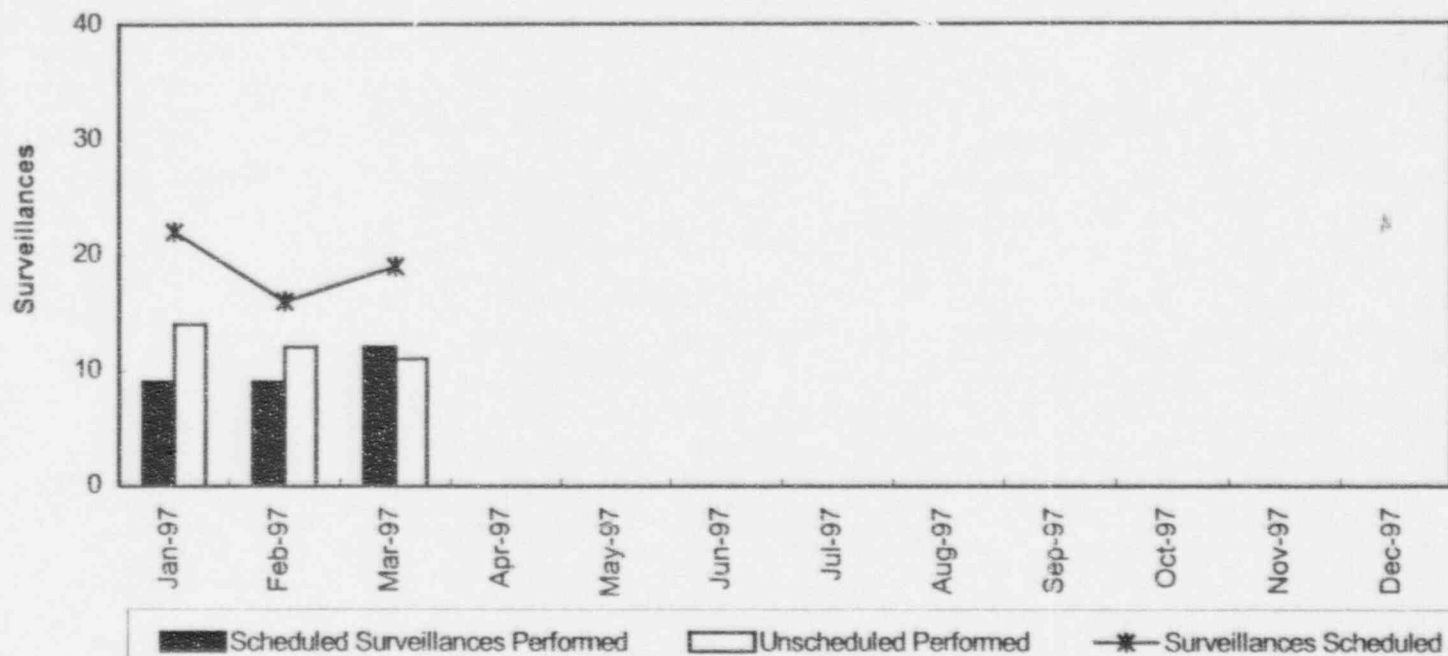


# Sample Audit Results

- ♦ Document Control - *too many “controlled copies” - reducing number of libraries*
- ♦ Design Control - *Manual ambiguous; S/A deficiencies not being resolved in a timely manner*
- ♦ Simulator Fidelity - *Program to maintain not adequate*
- ♦ Housekeeping / FME - *Program inadequate; requires upgrade*
- ♦ Fire Protection - *Program lacks ownership; failure to correct previous audit findings*



# Surveillance Schedule Adherence

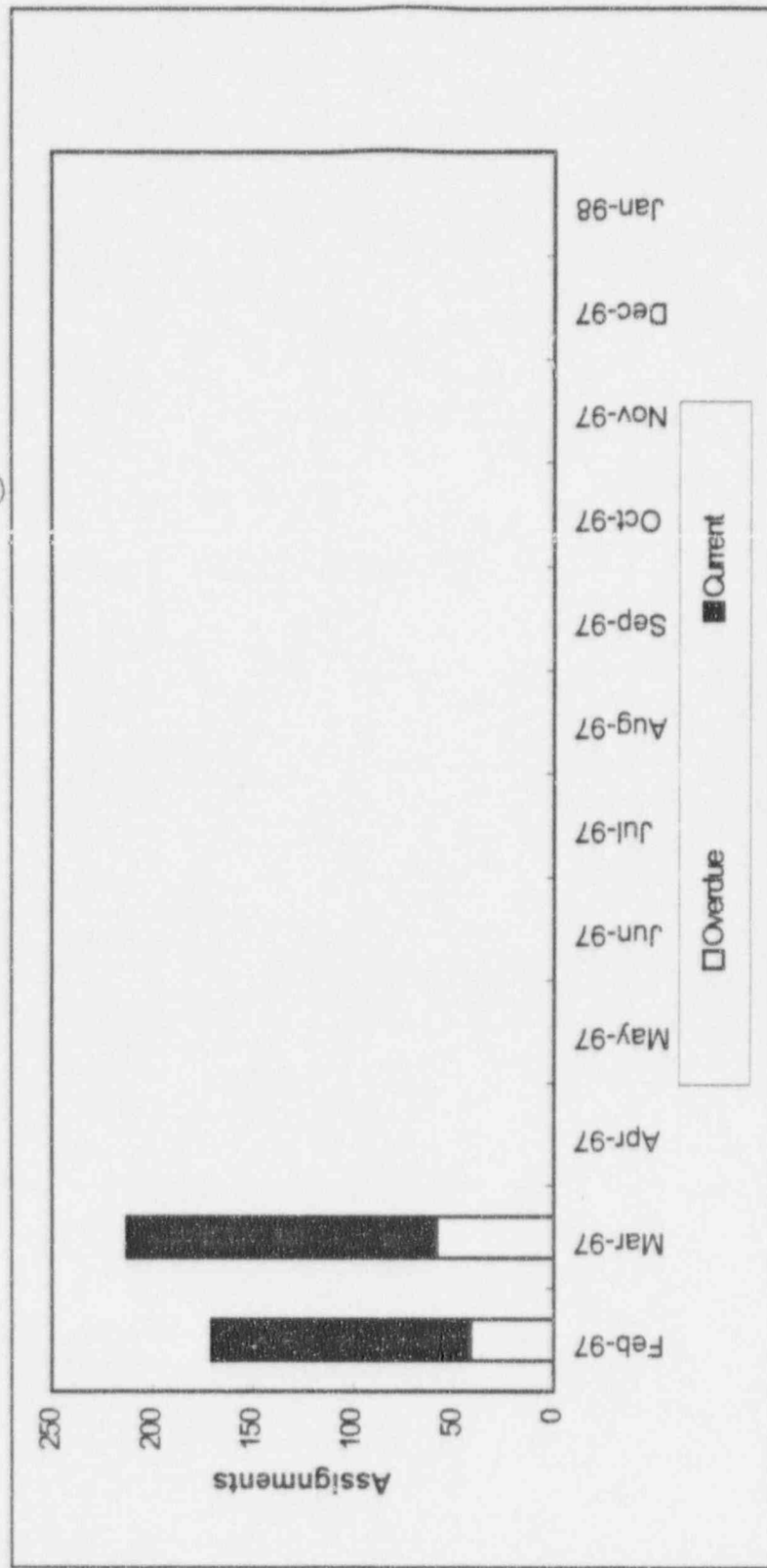


# Sample Surveillance Results

- ♦ MP3 - *MOV issues on vendor control, training, asbestos control*
- ♦ MP3 - *QA and non-QA stainless and carbon steel stored together*
- ♦ MP2 - *identified need to increase shutdown risk margin*
- ♦ MP1 - *inadequate control of bulk chemicals*
- ♦ MP1 - *inadequate corrective action regarding work on the gas turbine air start valve*

# AITTS Assignments

*(Oversight issues)*



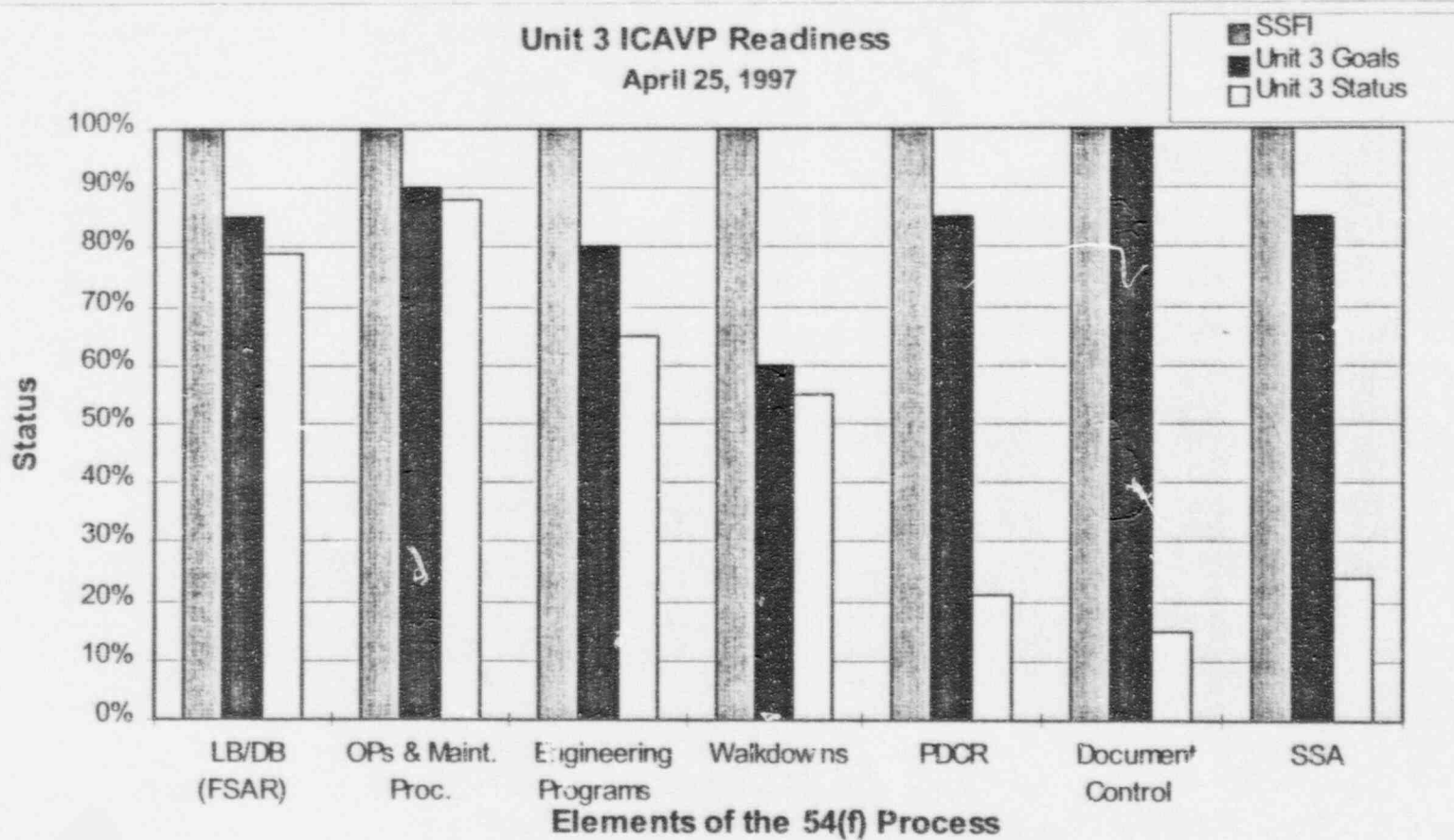
## **Readiness for ICAVP is when...**

- ♦ **Discovery is complete for 50% of safety and risk-significant systems**
- ♦ **The NRC has approved the Audit Plan**
- ♦ **Oversight readiness concurrence**

# Oversight 50.54(f) Results

- ◆ Efforts to date have focused on instilling quality into line processes with continuous feedback
  - *early identification of programmatic weaknesses*
  - *developed “gap analysis” to assess risks associated with process elements*

# MP3 ICAVP Readiness





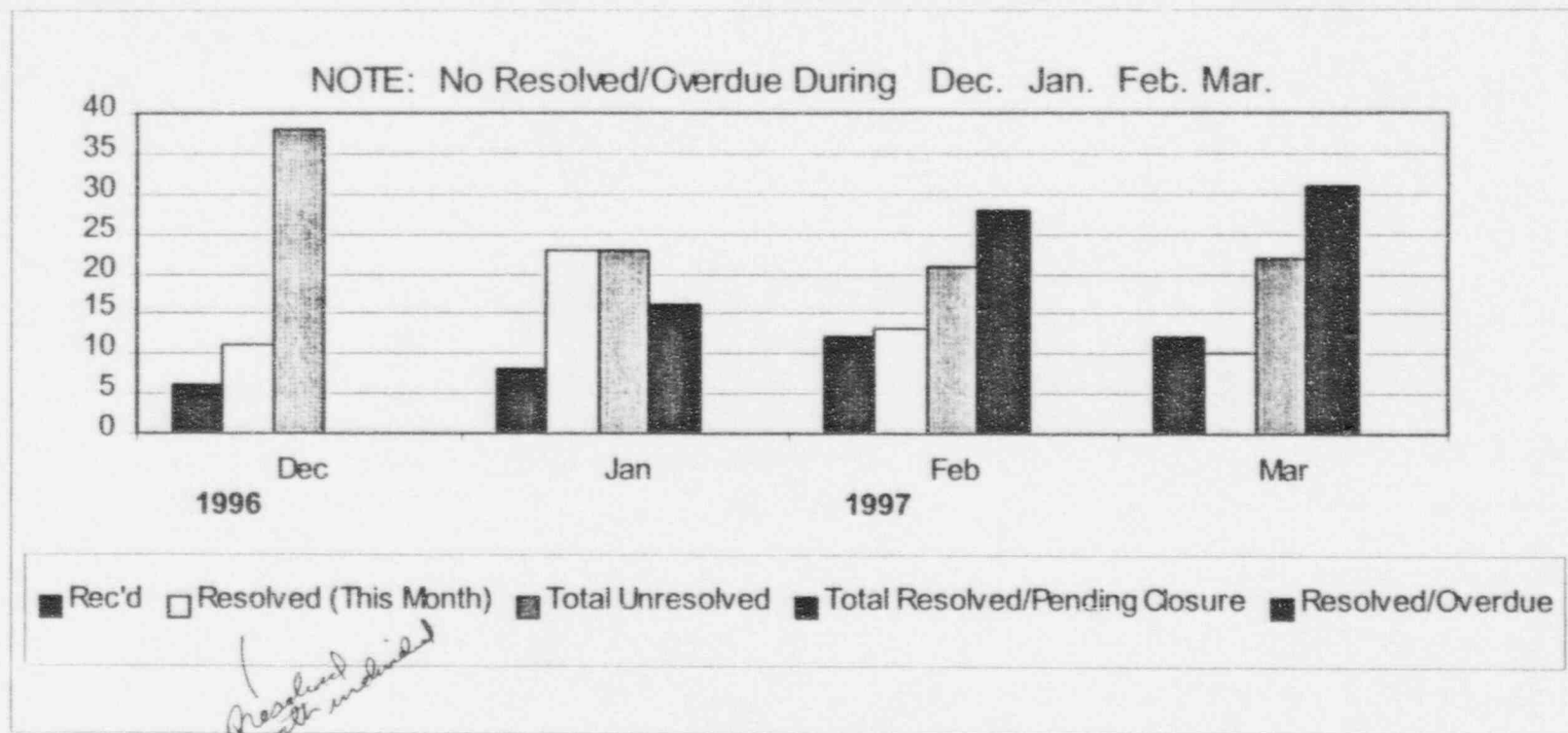
## **Unit Response to Nuclear Oversight**

- ♦ **Is not where it needs to be, but is improving**
- ♦ **Even better response is expected as Oversight...**
  - **improves the quality and consistency of its findings**
  - **adds value through intelligent intrusiveness**

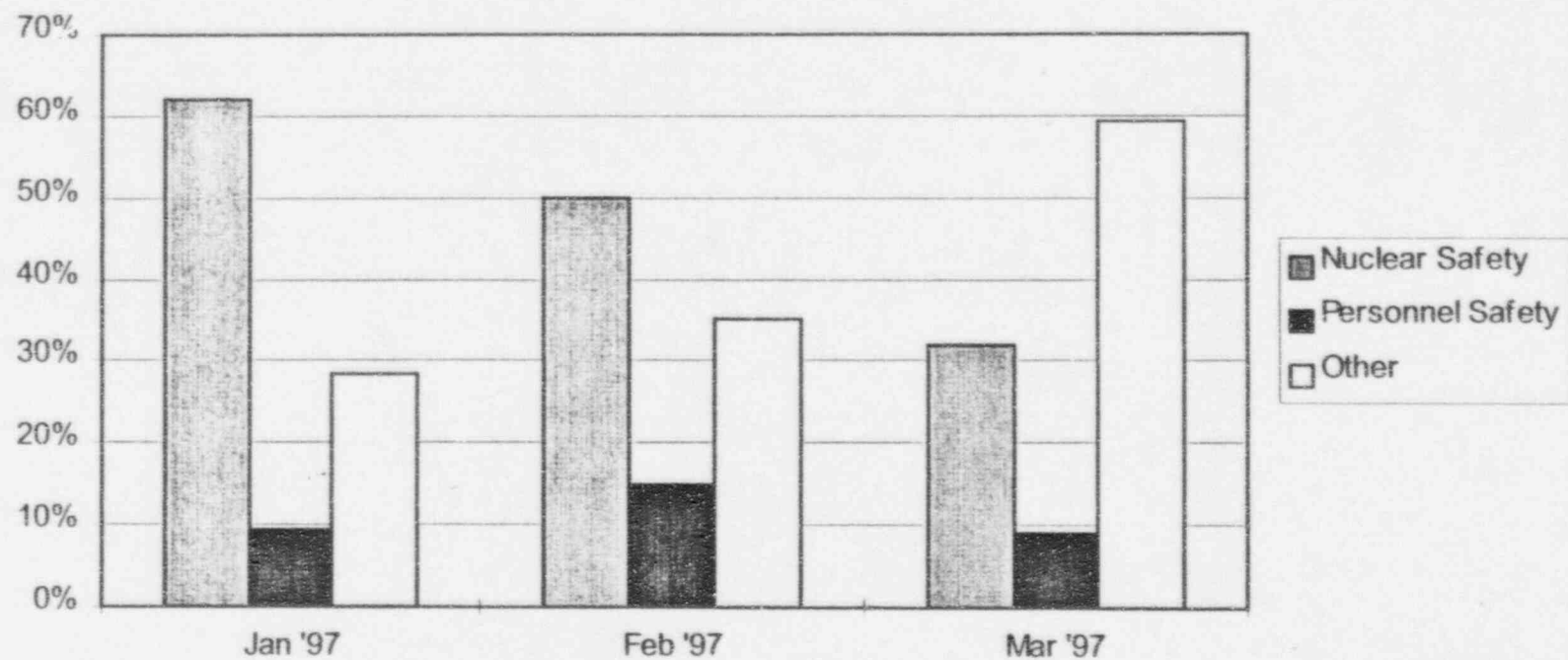
# **Employee Concerns Progress**

- ◆ **Meeting planned for mid-May**
- ◆ **Developed an ECP Comprehensive Plan**
- ◆ **Increased staff numbers, training and qualification standards**
- ◆ **Brought in experienced contractors to address backlog**
- ◆ **Selected Little Harbor Consultants to act as Independent Third Party Oversight Program**

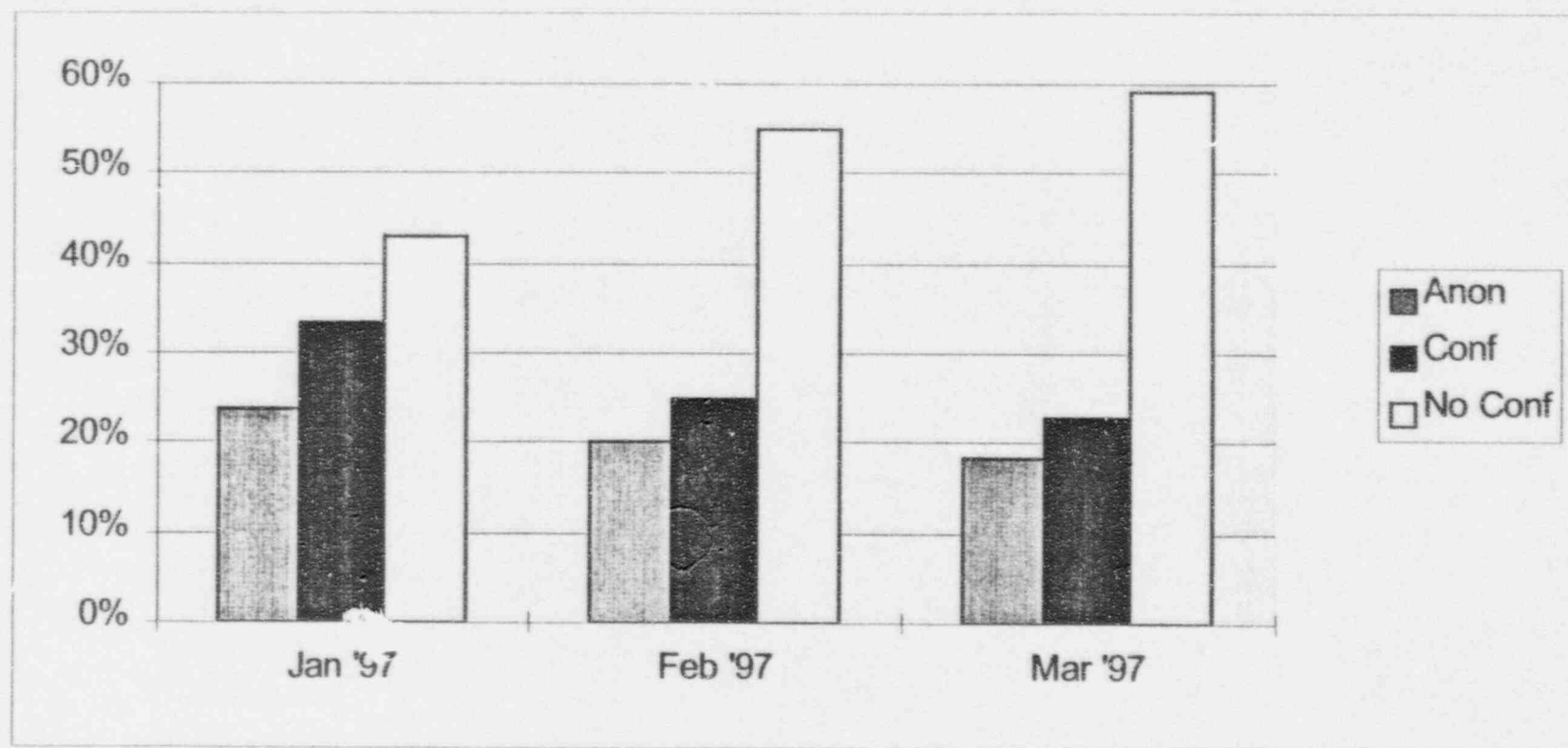
# MP Nuclear Concerns Backlog



# MP Nuclear Concerns by Type



# MP Confidentiality of Concerns



# **Oversight Challenges**

- ◆ **Implementing Oversight Recovery Plan while overseeing unit restart activities**
- ◆ **Continuing to improve our own ability to identify and track problems**
- ◆ **Providing accurate feedback based on small sample sizes**
- ◆ **Assist in guiding overall site-wide improvement in working relations**



# **Nuclear Safety Assessment Board**

**Mario Bonaca**  
***Chairman, NSAB***

# **How Do We Define Success?**

- ♦ **NSAB is capable of identifying performance trends and limiting weaknesses not identified by the Line organization or Oversight**
- ♦ **NSAB is able to influence improvements in Line self-assessment and Oversight**
- ♦ **Problems are identified and resolved by the Line**

# **NSAB Issues Being Addressed**

- ♦ **NSAB ability to identify generic issues and limiting weaknesses in the Line and Oversight**
- ♦ **NSAB ability to track and gain resolution of issues**
- ♦ **NSAB ability to play a nuclear safety advocacy role**

# **Changes Made to Enhance NSAB Effectiveness**

- ◆ **Separate Board created for Connecticut Yankee - NSAB focused on Millstone**
- ◆ **Membership includes Recovery and Oversight Officers**
- ◆ **External consultants increased to 4**
- ◆ **NU Board of Trustees providing oversight of NSAB**
- ◆ **Increased focus on safety-significant issues**
- ◆ **Formalized communication to CEO**

# Changes Made to Enhance NSAB Effectiveness

## ♦ Five Subcommittees:

- Operation and Maintenance
- Assessment and Quality
- Engineering – *New*
- Safety Evaluations – *Reviews TS amendment changes*
- Support Functions – *New*

## ♦ Increased capability to monitor effectiveness of Oversight

## ♦ NSAB expectations for TS change reviews

# **Recent NSAB Contributions**

- ♦ **Lay-up standards issues**
- ♦ **Reactivity management program**
- ♦ **Station-wide testing issues**
- ♦ **ICAVP readiness differences between the Line and Oversight**
- ♦ **Quality and timeliness of PORC minutes**



# NSAB Contributions

- ◆ Strengthened the audit program by demanding expanded scope, depth and focus on generic implications and strength of self-assessment
- ◆ Issued Nuclear Safety Standards and Expectations document
- ◆ Reviews all Safety Evaluations, sends back to PORC for corrective action those in need of improvement or considered unsatisfactory

*- Does not include things that did not get through SA, SA screen*

# SAFETY EVALUATION RATING

## *(1997 YTD Review Results)*

Nuclear Unit	Number Reviewed	(NI) Needs Improvement	(U) Unsat
MP1	46	3	0
MP2	58	7	0
MP3	43	2	0
<b>Total</b>	<b>147</b>	<b>12</b>	<b>0</b>

- **Needs Improvement (NI)** - *Correct conclusion; documentation is sufficiently flawed so as to require revision*
- **Unsatisfactory (U)** - *Wrong conclusion and/or major flaws*

# Issues

- ♦ Keeping abreast of changes ongoing at the units and the impact of changes
- ♦ Need for effective Key Performance Indicators for all three units
- ♦ Assigning priorities commensurate with safety significance
- ♦ Maintaining NSAB participation as a station priority

## **Basis for NSAB Recommendation for Unit Restart**

- ♦ **Corrective actions are effective and timely, and backlog is steadily trending down**
- ♦ **Employee concerns are increasingly directed to, and addressed by, the Line**
- ♦ **Line management and Oversight are identifying and resolving issues before they come to the NSAB**

***Draft NSAB restart readiness review plan  
to be reviewed at May 1 meeting***

# **Millstone Unit 3 Update**

**Mike Brothers**  
***Vice President***

# **Format for Presentation**

- ◆ **Inspection Report 96-201**
- ◆ **EEI / SIL**
- ◆ **Corrective Action / CMP**
- ◆ **Performance Indicators**
- ◆ **Challenges**
- ◆ **Milestone Schedule**



## **MP3 - Status of IR 96-201 EEIs**

- ♦ **28 EEIs issued - 4 common causes**
  - **inadequate management expectations**
  - **inadequate Corrective Action Program**
  - **inadequate Engineering Design and Configuration Program**
  - **inadequate Oversight**

## **MP3 - Corrective Actions for IR 96-201 Items**

♦ Programmatic (50.59 process DCM / SBO)	12
♦ Modification / Setpoint Changes	7
♦ Documentation (TRM/FSARCR/PTSCR/Calcs)	6
♦ Immediately Corrected	3

# Status of EEI 96-201-04 (MP3)

*Procedures were changed without a PTSCR to permit closure of Turbine-Driven Auxiliary Feedwater discharge valves whenever the Motor-Driven Auxiliary Feedwater pumps were used for steam generator water control.*

## ♦ Corrective Action:

- modification to the AFW-36 valves
- 50.59 procedure revision & training
- PTSCR submittal

## ♦ Schedule: 8/5/97

# Status of EEI 96-201-18 (MP3)

*Controls were not established to coordinate comprehensive revision of procedures necessary to implement all aspects of Tech Spec Amendment 100, including reconciliation of the vendor recommended pre-lubrication interval for AFW pumps.*

## ♦ Corrective Action:

- lubrication interval incorporated into procedures
- training in Tech Spec changes and license amendments.

## ♦ Schedule: 7/22/97

# **MP3 Closure Package Schedule**

**Schedule for submitting closure packages:**

- ♦ Closure packages due by 5/16 - 2**
- ♦ Closure Packages due by 6/23 - 3**
- ♦ Closure Packages due by 7/23 - 10**
- ♦ Closure Packages due by 8/13 - 12**
- ♦ Closure Packages due by 10/7 - 1**

## MP3 - Configuration Management / 50.54(f)

	<i>Total C/As since ACR 7007</i>	<i>CMP</i>
Inputs to Corrective Action Program (ACRs and CRs)	3949	700
LERs	83	43
Restart Modifications	109	30

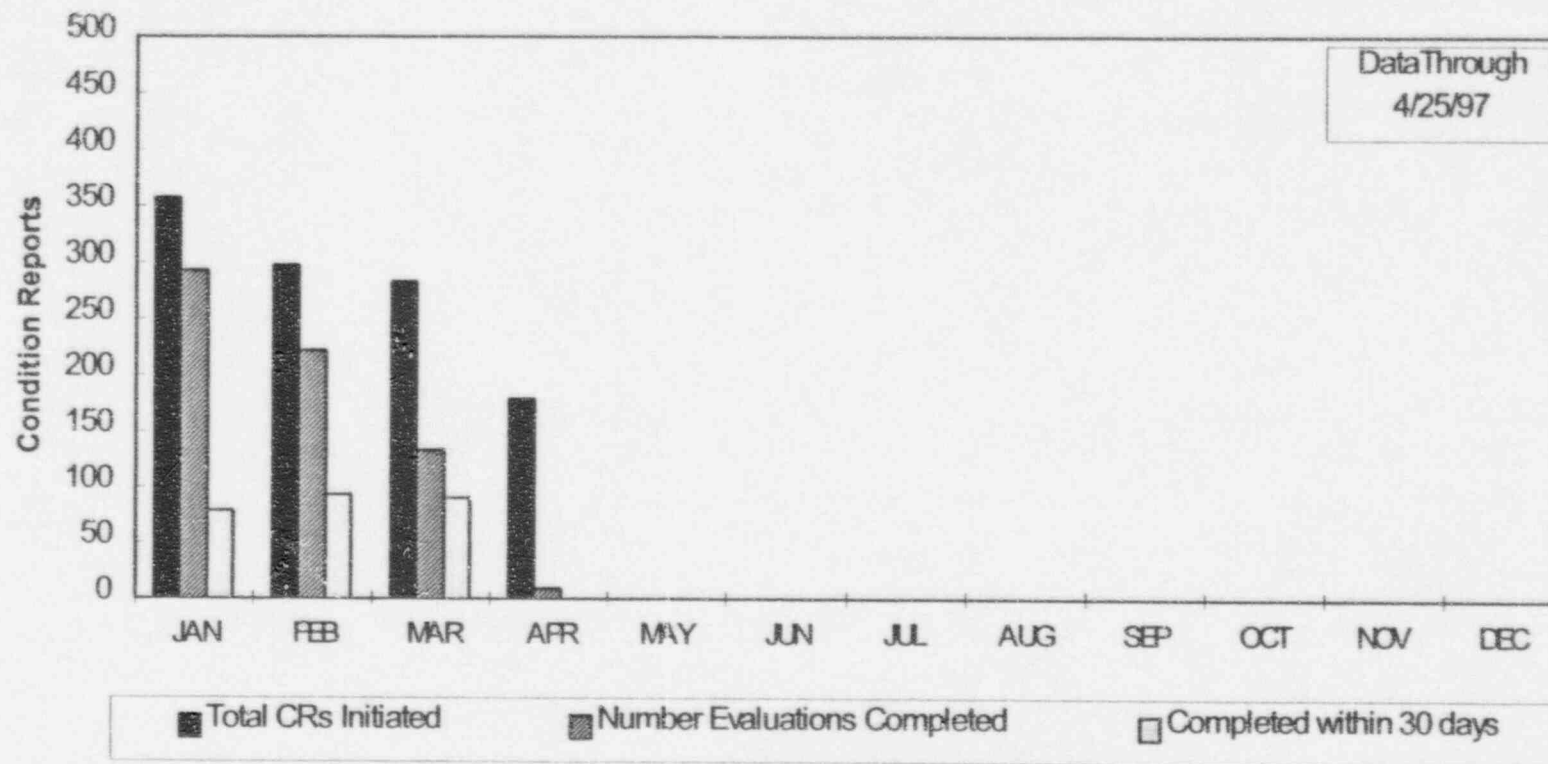


# MP3 Significant Items Identified *- Highest 4*

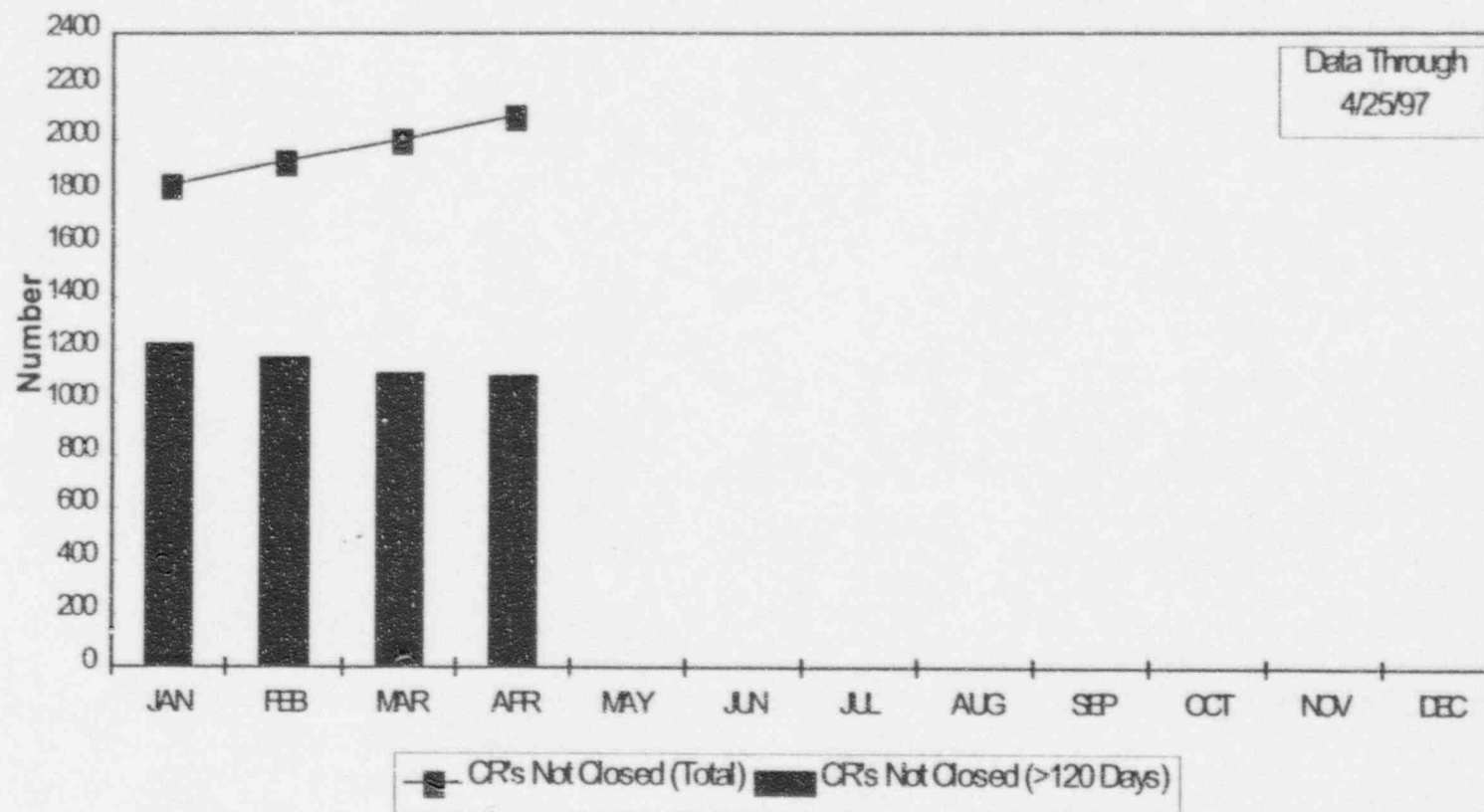
ITEM DESCRIPTION	DISCOVERED BY CM PROJECT
RSS Fluid Ambient Temperature	No
RSS Sump Vortexing	Yes
RSS Pump Suction Voiding (NPSH)	Yes
Electrical System Separation	No

# **MP3 Performance Indicators**

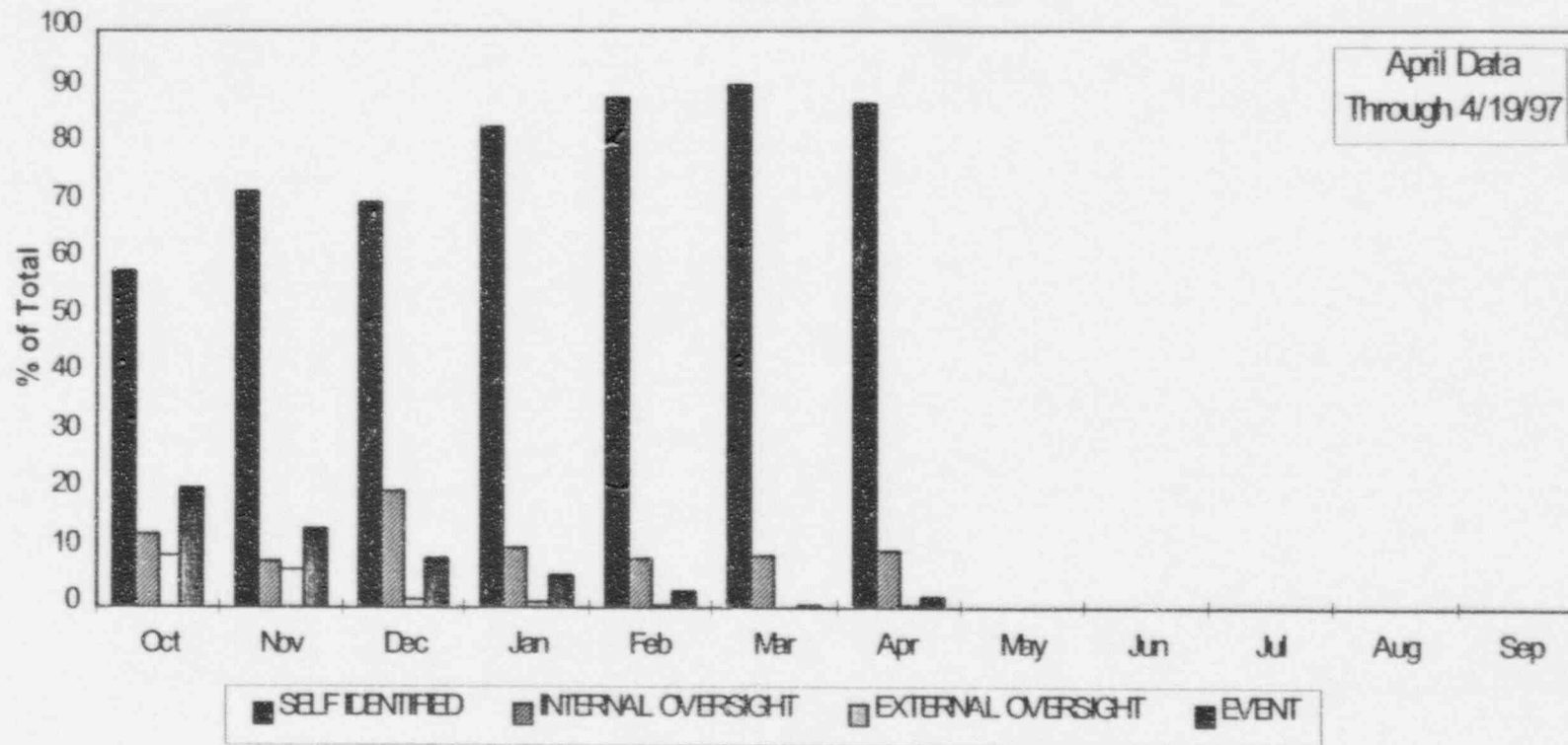
## Unit 3 - Condition Report Initiation and Evaluation Timeliness



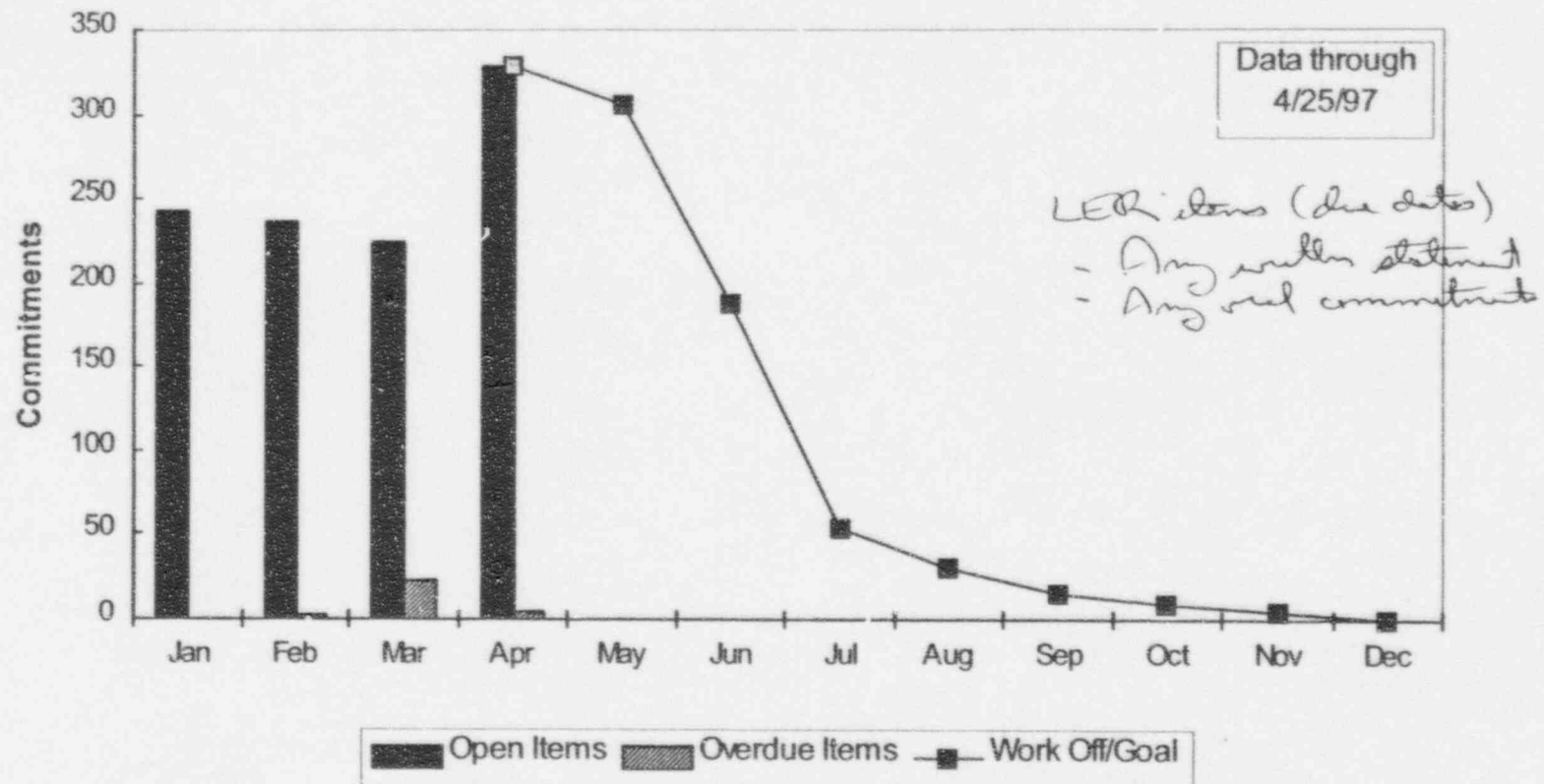
## Unit 3 - Open Power Block Condition Reports



## Unit 3 - Condition Report Method of Discovery

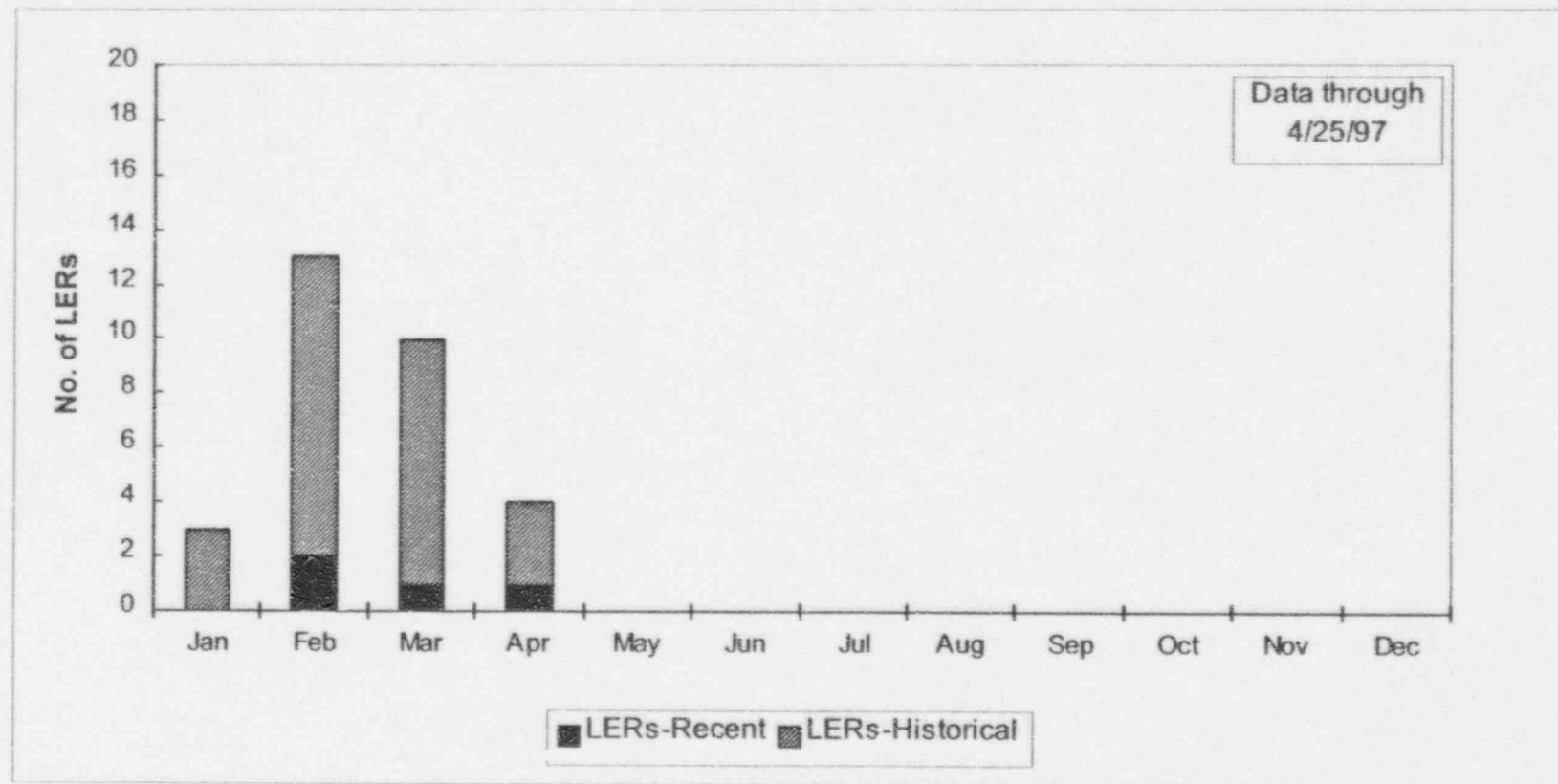


# Unit 3 - Open NRC Commitments for Restart

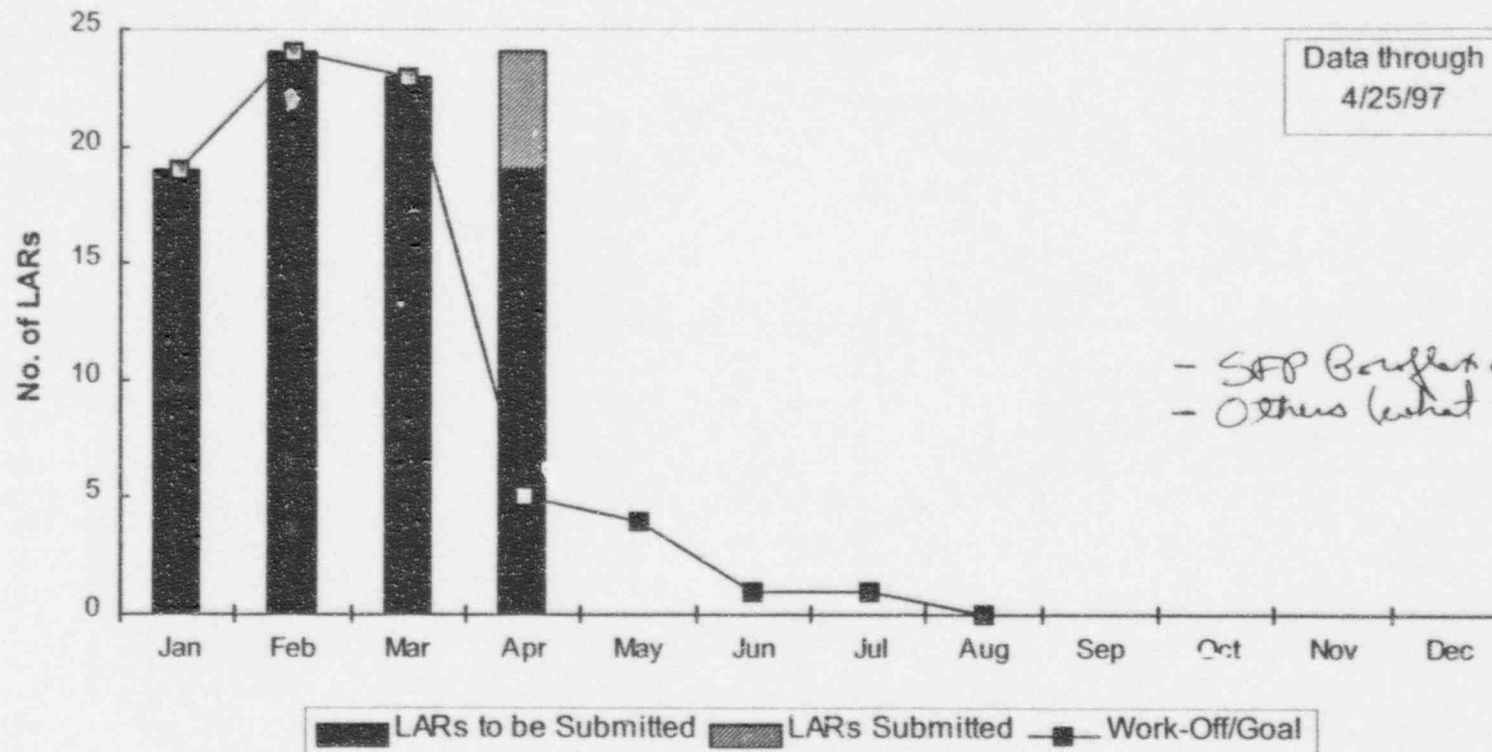




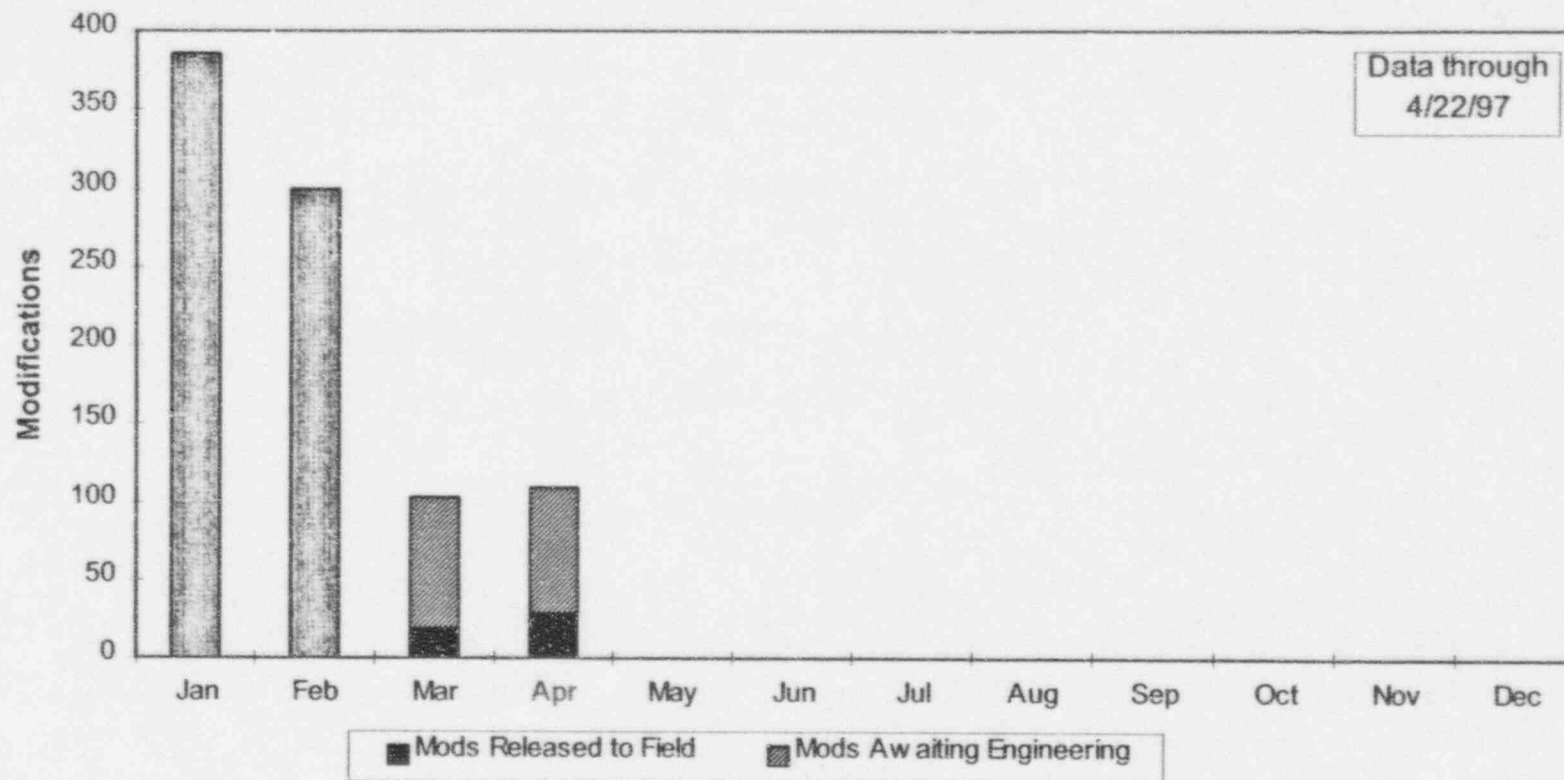
## Unit 3 - Licensee Event Reports



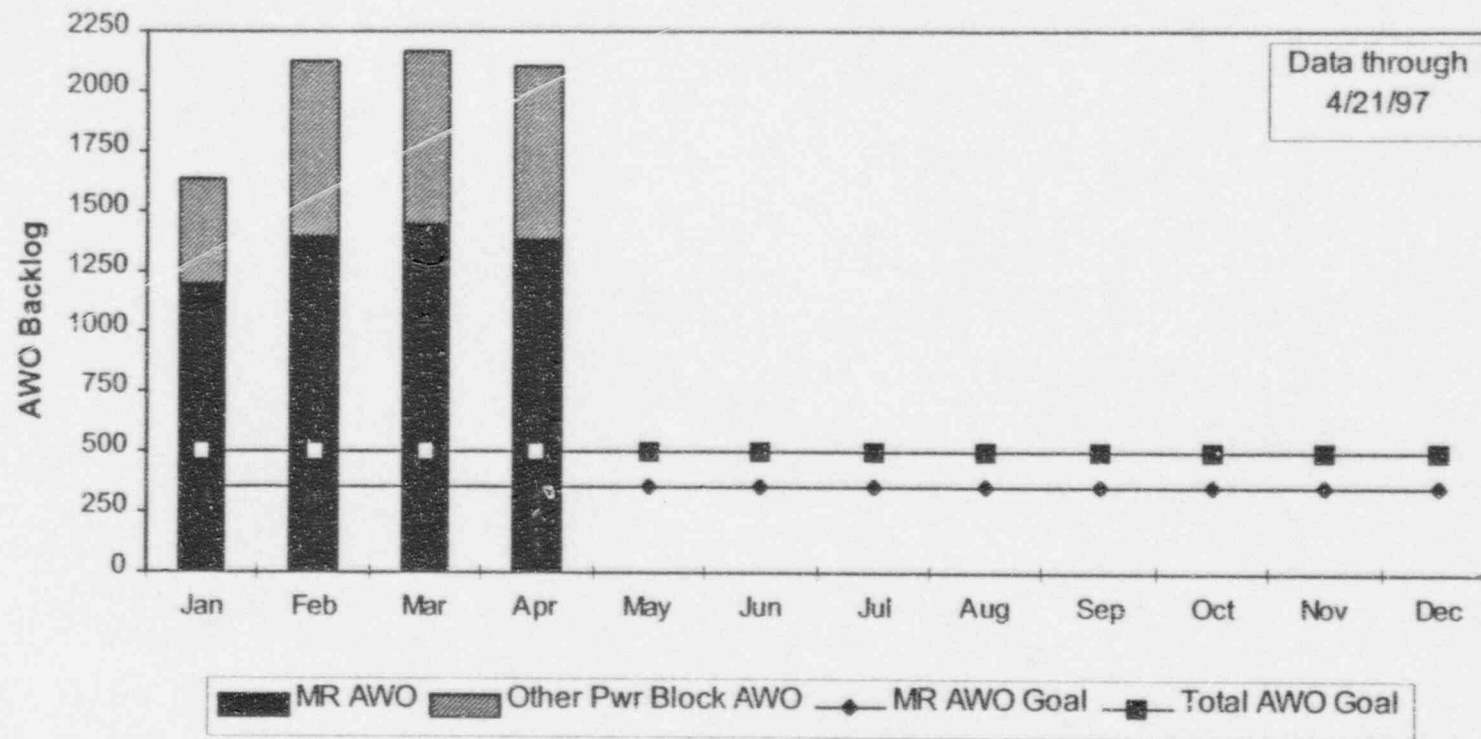
# Unit 3 - License Amendment Requests



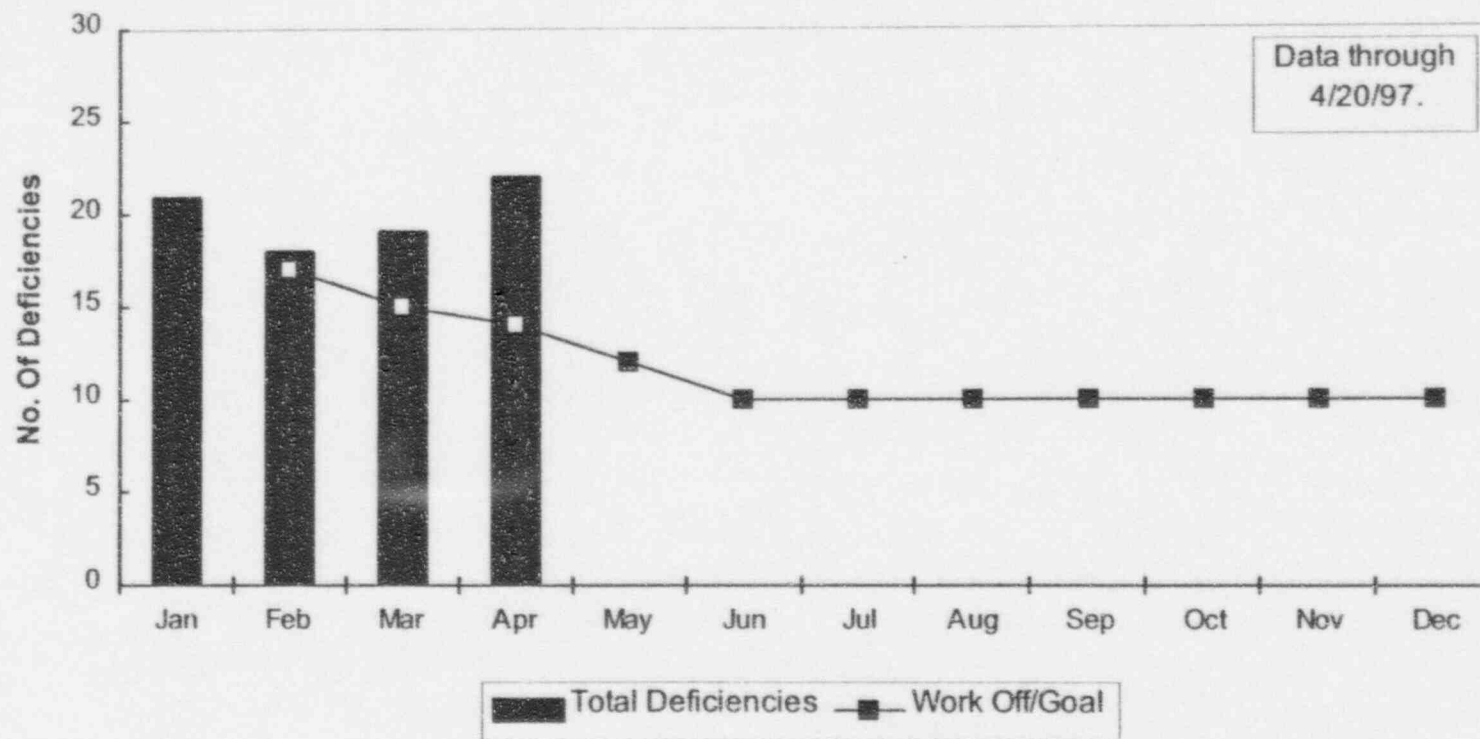
## Unit 3 - Restart Modifications Awaiting Implementation



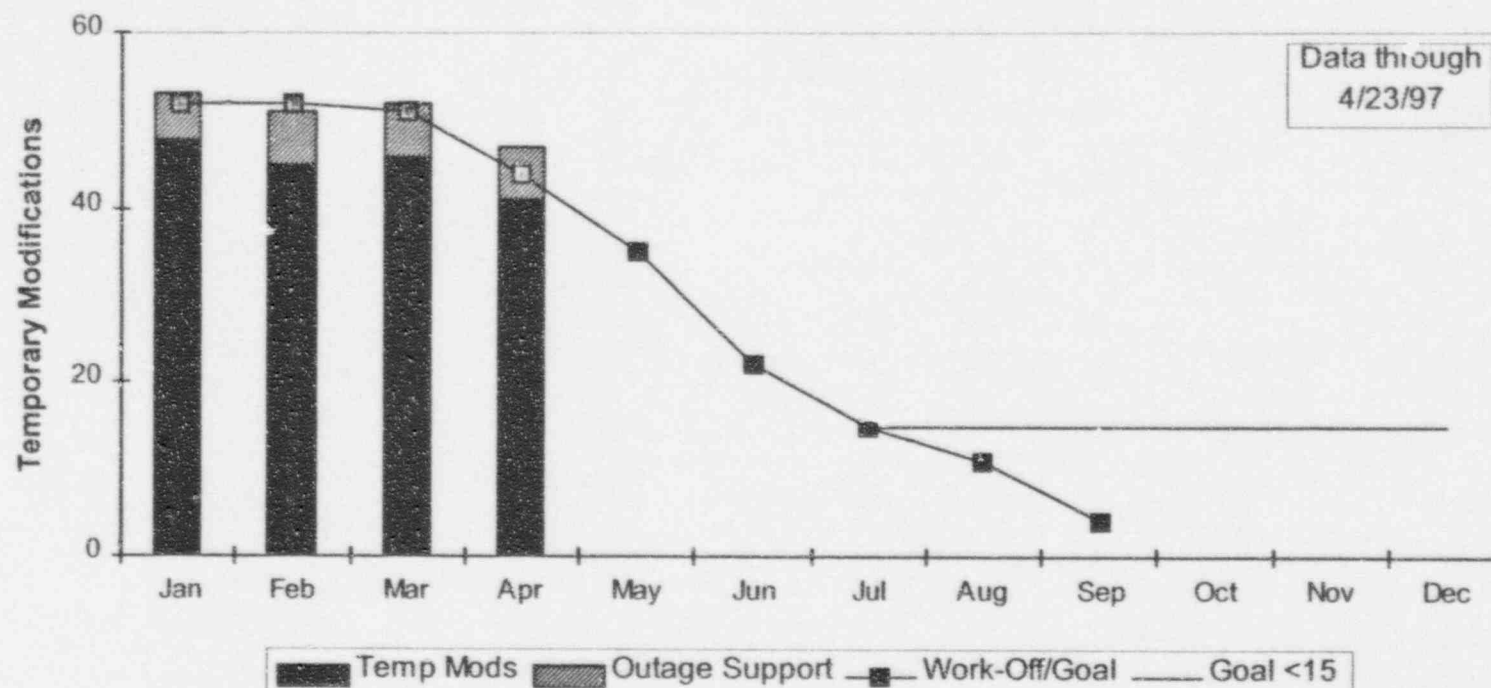
## Unit 3 - AWOs Required for Restart



## Unit 3 - Control Room and Annunciator Deficiencies

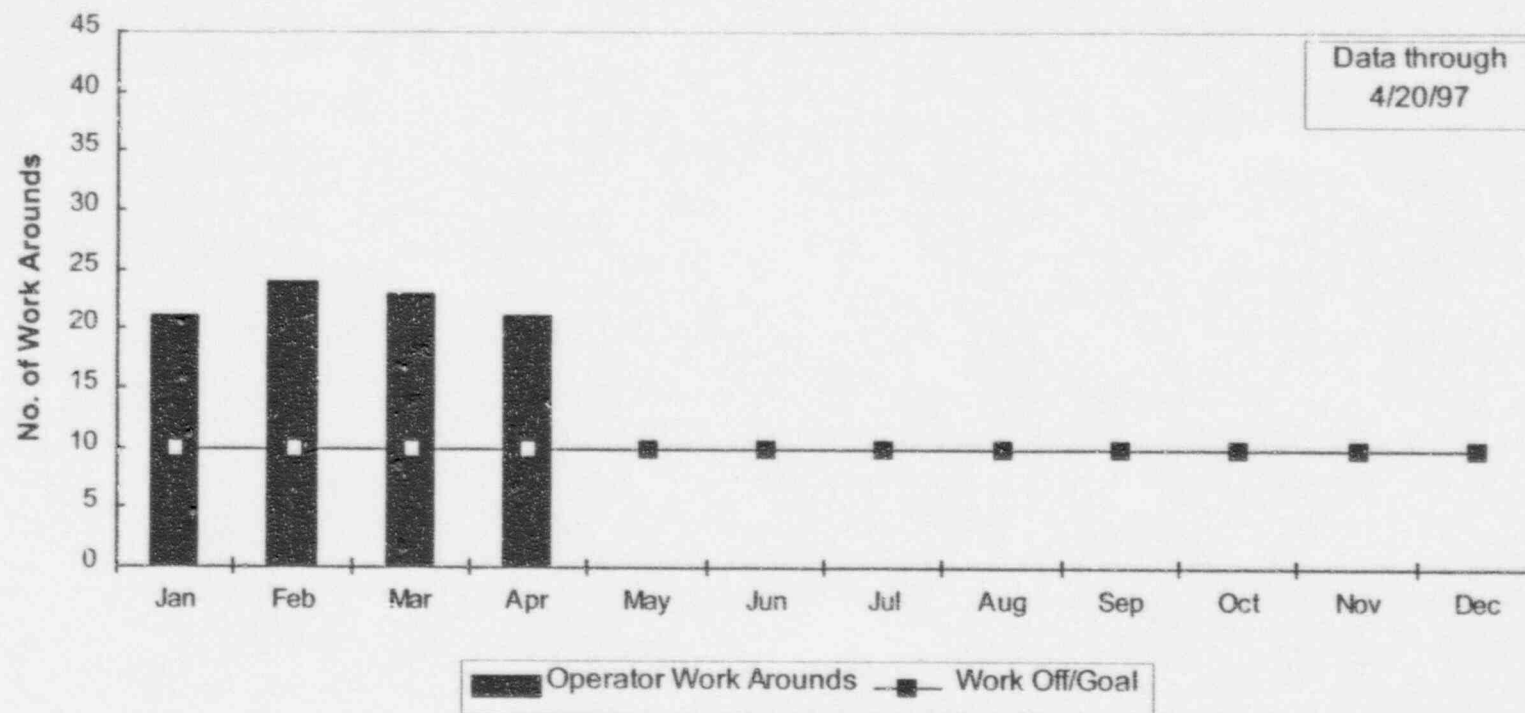


## Unit 3 - Temporary Modifications

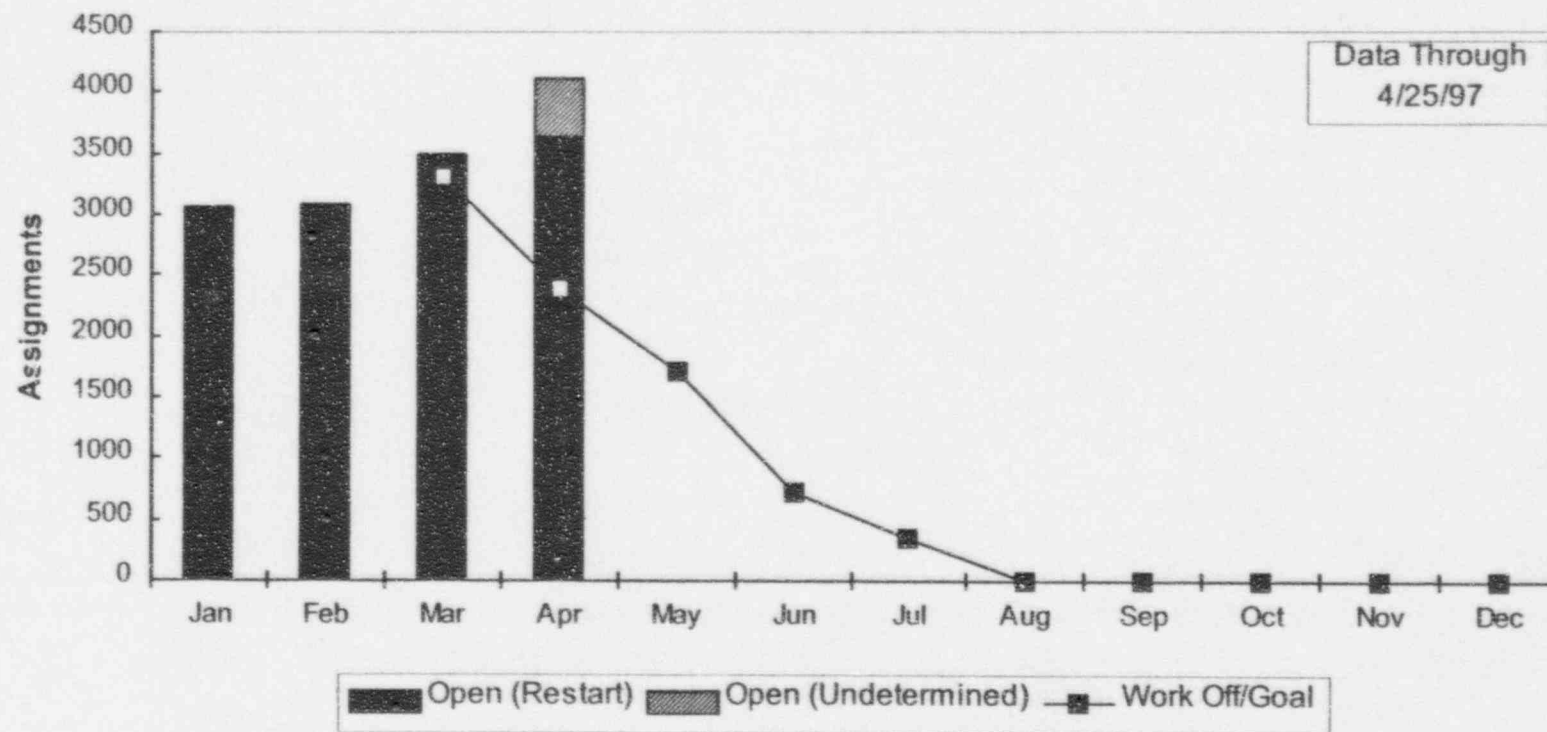




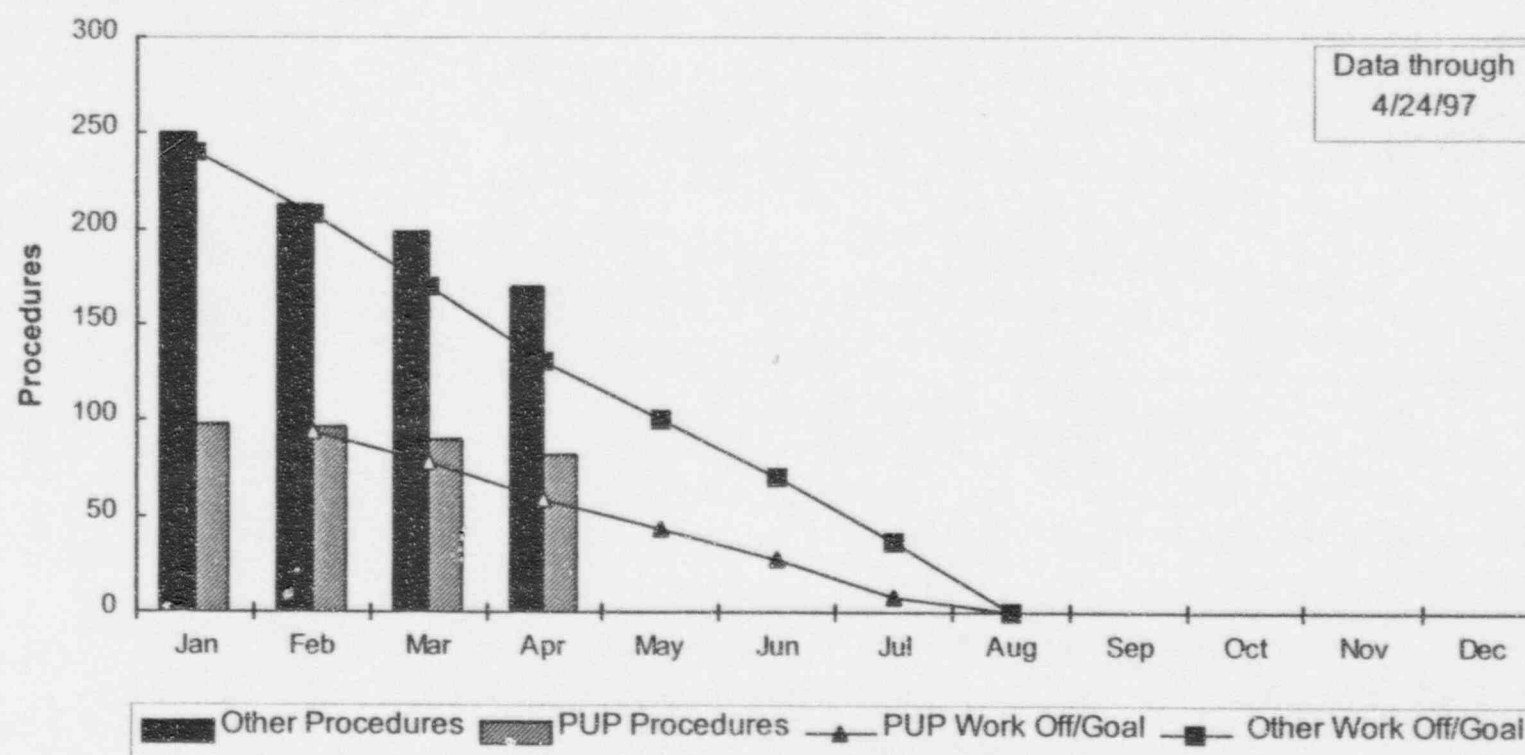
## Unit 3 - Operator Work Arounds



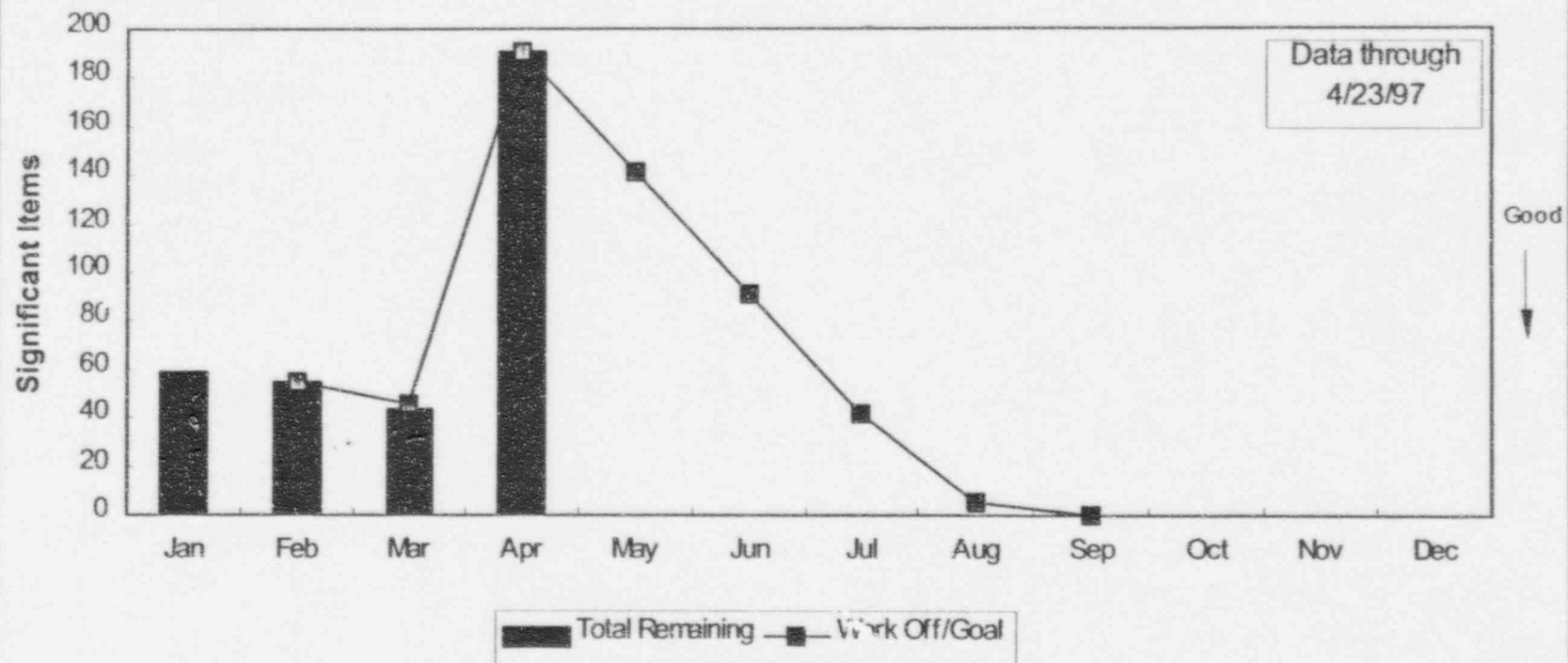
## Unit 3 - Task Completions Required for Restart



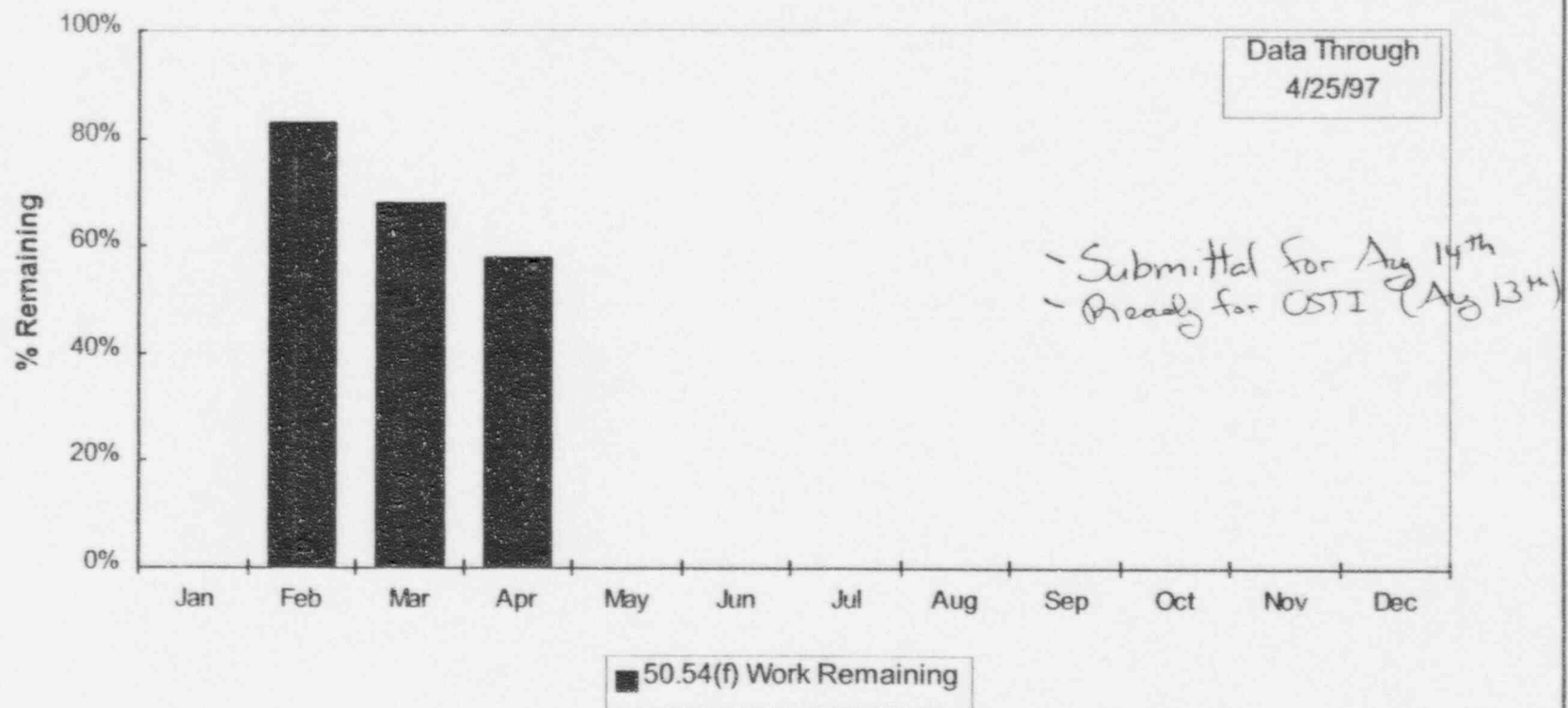
# Unit 3 - Procedure Revision Backlog



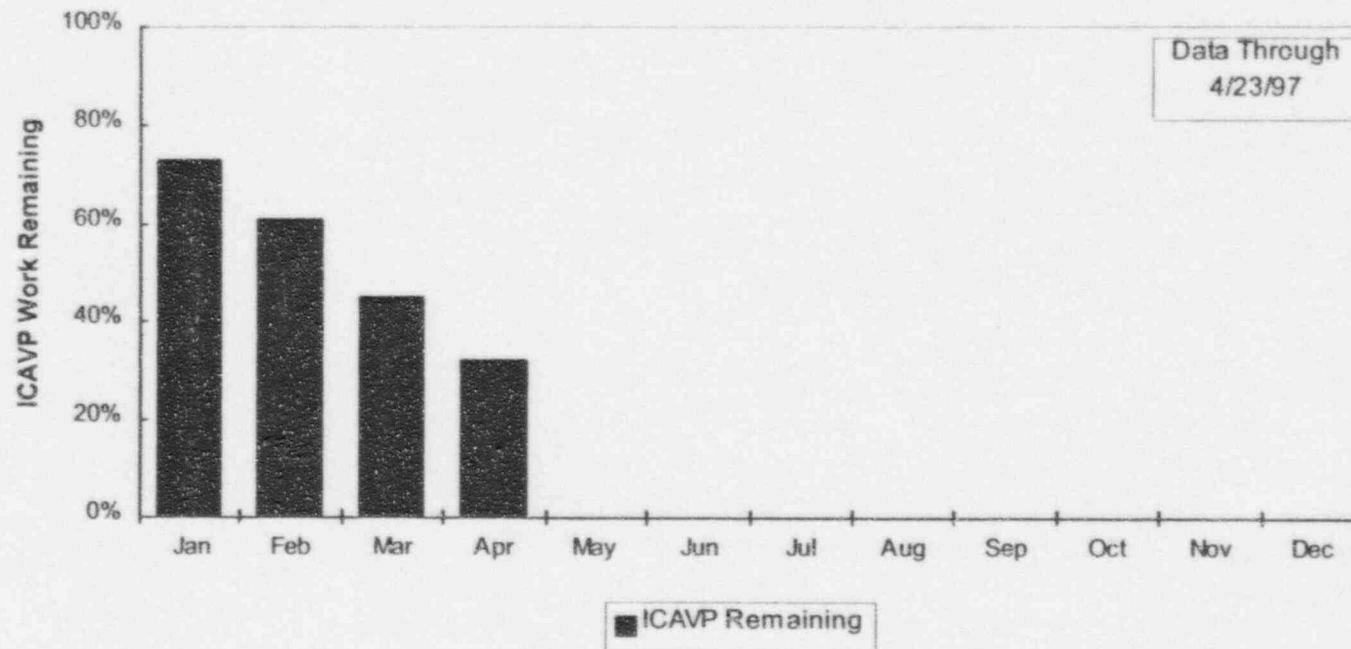
## Unit 3 - Significant Items List



## Unit 3 - 10CFR50.54(f) Readiness for Submittal



## Unit 3 - ICAVP Readiness





# MP3 Challenges

## ♦ ICAVP

- Electrical Separation
- Generic Letter 96-01
- Completion of SSAs

## ♦ OSTI

- Employee Concerns
- Corrective Action
- Configuration Management Program
- Arcor
- MOVs
- AWO Backlog

# **MP3 Milestone Schedule**

- ◆ Independent Corrective  
Action Verification Program 5/27
- ◆ Complete Remaining SSAs  
(Wave 2 and Wave 3) 7/14
- ◆ Issue 50.54(f) letter to NRC 8/13
- ◆ Plant Physically Ready 9/30

# **Millstone Unit 2 Update**

**Marty Bowling**  
***Recovery Officer - Unit 2***

# **Raising Standards**

- ♦ **Nuclear Safety**
- ♦ **Leadership and Management Expectations**
- ♦ **Training**
- ♦ **Self Assessment**
- ♦ **Corrective Action**
- ♦ **Procedure Upgrades**

## **MP2 - Status of IR 96-201 EEIs**

- ♦ 14 EEIs issued - 4 common causes**
  - inadequate Management Expectations**
  - inadequate Corrective Action Program**
  - inadequate Engineering Design and Configuration Program**
  - inadequate Oversight**

# **MP2 - Corrective Actions for IR 96-201**

<b>◆ Programmatic</b>	<b>11</b>
<b>◆ Modification / Setpoint Changes</b>	<b>3</b>



# **MP2 Closure Package Status**

- ♦ **Total number of closure packages presented to the NRC to date - 5**
- ♦ **Schedule for submitting closure packages:**
  - **closure packages due by 5/16 - 2**
  - **closure Packages due by 6/13 - 2**
  - **closure Packages due by 7/18 - 2**
  - **closure Packages due by 8/15 - 3**

# Status of EEI 96-201-25 (MP2)

***Corrective actions pertaining to maintenance and testing of 23 dual function containment isolation valves were not completed as required.***

## ♦ **Corrective Actions**

- initial “as found” testing of the 23 dual function valves has been completed
- ORP has been issued to address programmatic issues
- CAD established to track commitments

# Status of EEI 96-201-41 (MP2)

*The plant configuration for the Containment Gaseous and Particulate Radiation Monitors, Hydrogen Monitoring System and Post-Accident Sampling System was outside of its design basis.*

## ♦ Corrective Action

- An engineering report has been issued which defines the licensing basis. This will be used to generate the Design Change to repower the isolation valves to prevent single failure. The Hydrogen monitors and containment RMs will also be replaced.

# MP2 Configuration Management

	TOTAL CAs SINCE 7007	CMP
INPUTS TO CORRECTIVE ACTION PROGRAM (ACRs and CRs)	1107	74
LERs	26	6
RESTART MODIFICATIONS	104	3

## **MP2 Significant Items Identified**

<b>ITEM DESCRIPTION</b>	<b>DISCOVERED BY CM PROJECT</b>
<b>Containment Sump Screen Installation</b>	<b>No</b>
<b>Environmental Qual Program</b>	<b>No</b>
<b>Start-up Rate Trip Removal</b>	<b>Yes</b>
<b>Single MSIV Closure</b>	<b>Yes</b>

# MP2 Challenges

- ◆ Healthy Safety Environment
- ◆ Self Assessments
- ◆ Operator Training
- ◆ Work Control Process
- ◆ Modifications
- ◆ Heatup / Cooldown Operations
- ◆ Technical Issues
  - Thermo-Lag and Appendix R
  - Reg. Guide 1.97
  - Environmental Qualifications —

*Self Assessment  
done - results  
available*



## **MP2 - Key Schedule Milestones**

- ◆ 6/23 Ready for ICAVP Start
- ◆ 6/30 Complete License Amendment Submittals
- ◆ 8/6 Complete Reactor Core Reload
- ◆ 8/15 Complete NRC Significant Item List (SIL) Closure Package Submittals
- ◆ 9/5 Complete CMP for Group 1 and 2 Systems
- ◆ 9/29 Ready for OSTI
- ◆ 11/14 MP2 Ready for Restart
- ◆ 11/25 Complete Preparations for Heatup

# **Millstone Unit 1 Update**

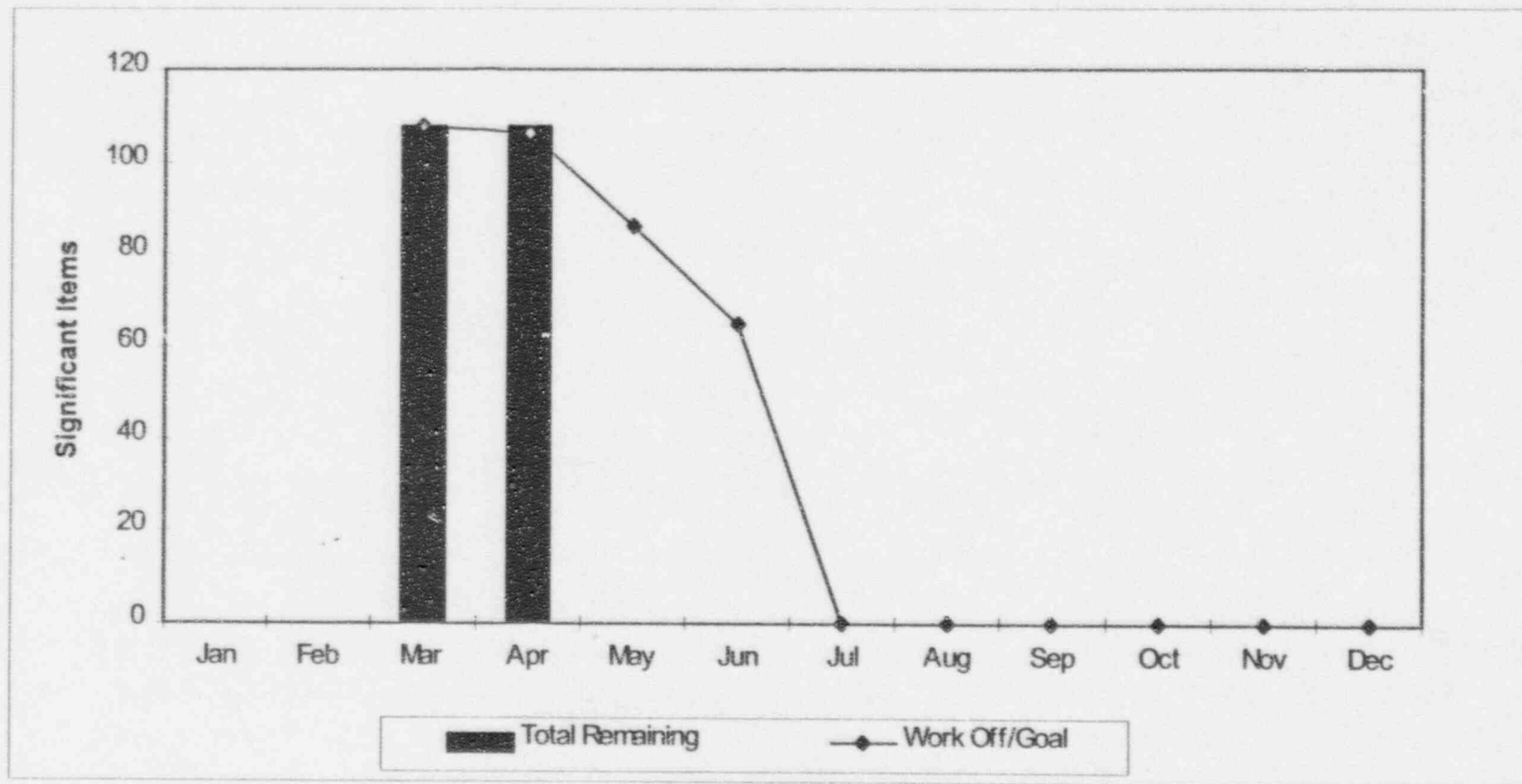
**Paul Hinnenkamp**

***Director, Unit 1 Operations***

# Unit 1 Update

- ◆ Leadership
- ◆ SIL Status
- ◆ Configuration Management
- ◆ Performance Indicators
- ◆ Challenges
- ◆ Schedule

# Unit 1 - Significant Items List



# **MP1 Configuration Management (since 1/96)**

	<b>Corrective Action (Post-ACR 7007)</b>	<b>CMP</b>
<b><i>Inputs to Corrective Action Program</i></b>	<b>3183</b>	<b>170</b>
<b><i>LERs</i></b>	<b>88</b>	<b>4</b>
<b><i>Restart Modifications</i></b>	<b>49</b>	<b>0</b>

## MP1 Significant Items Identified

Item Description	Discovered by CMP
<i>Electrical Separation</i>	No
<i>Bolting / Seismic</i>	No
<i>FWCI Flow / Gas Turbine Timing</i>	Yes
<i>Condensate Issues</i>	Yes
<i>Torus Coating</i>	No
<i>ADS Single Failure</i>	No

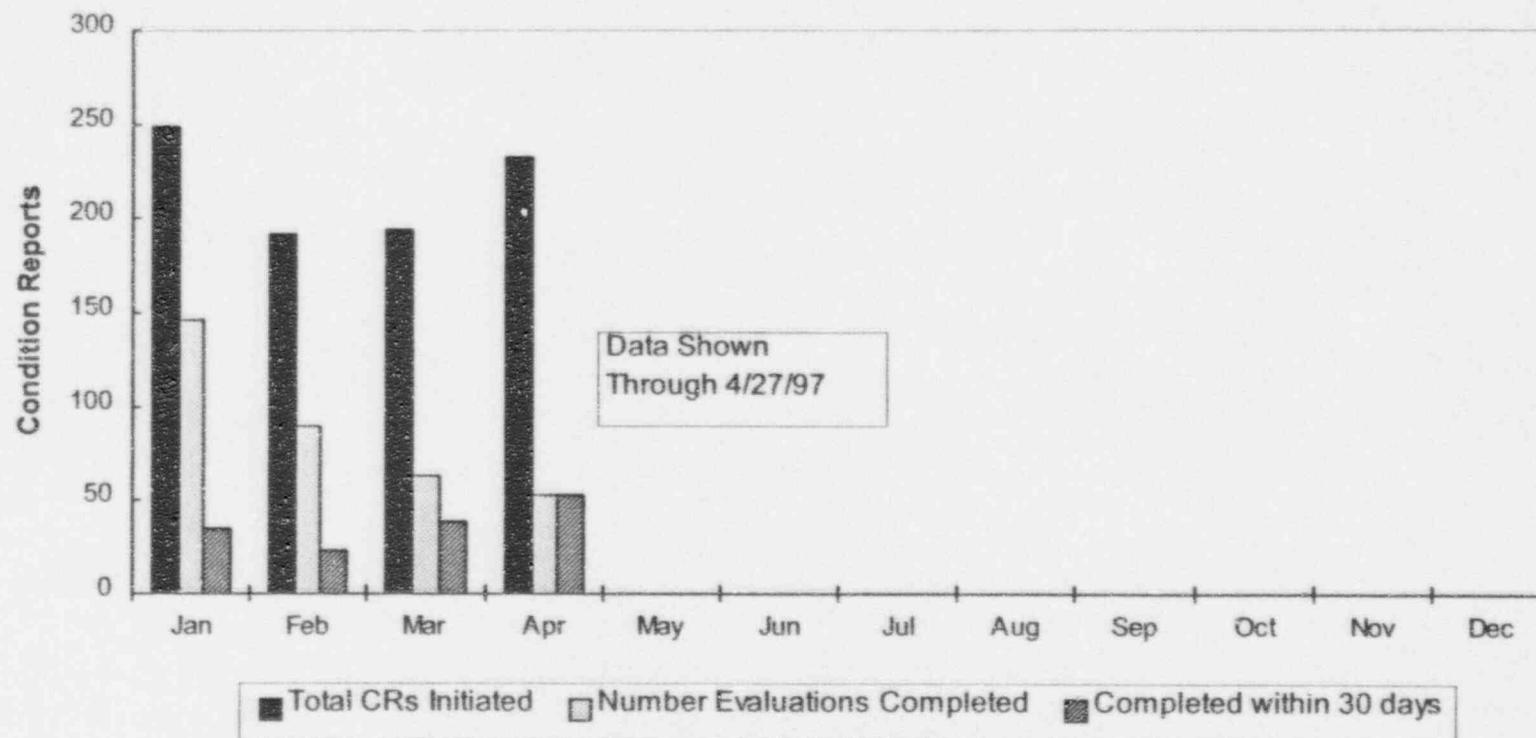


# Summary

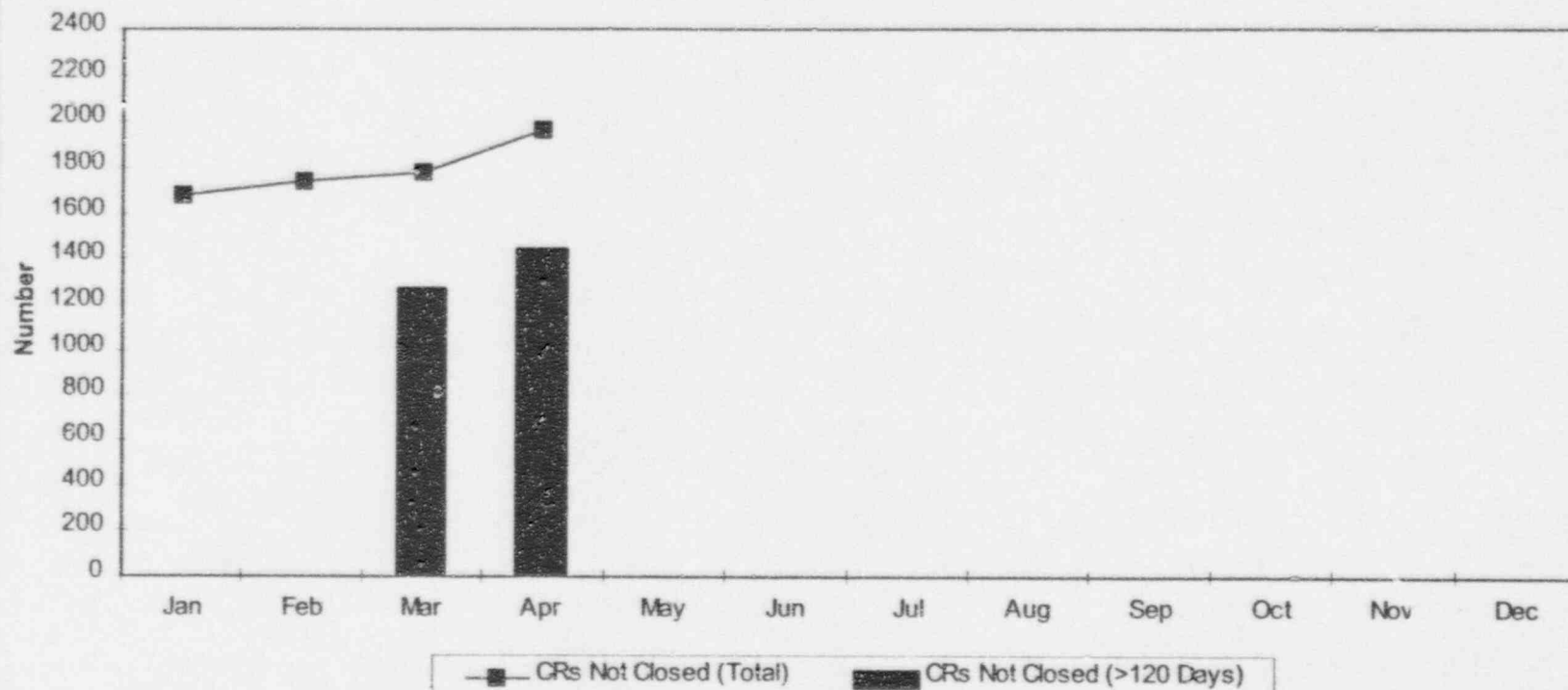
Buzz Carns

# MP 1 Backup Slides

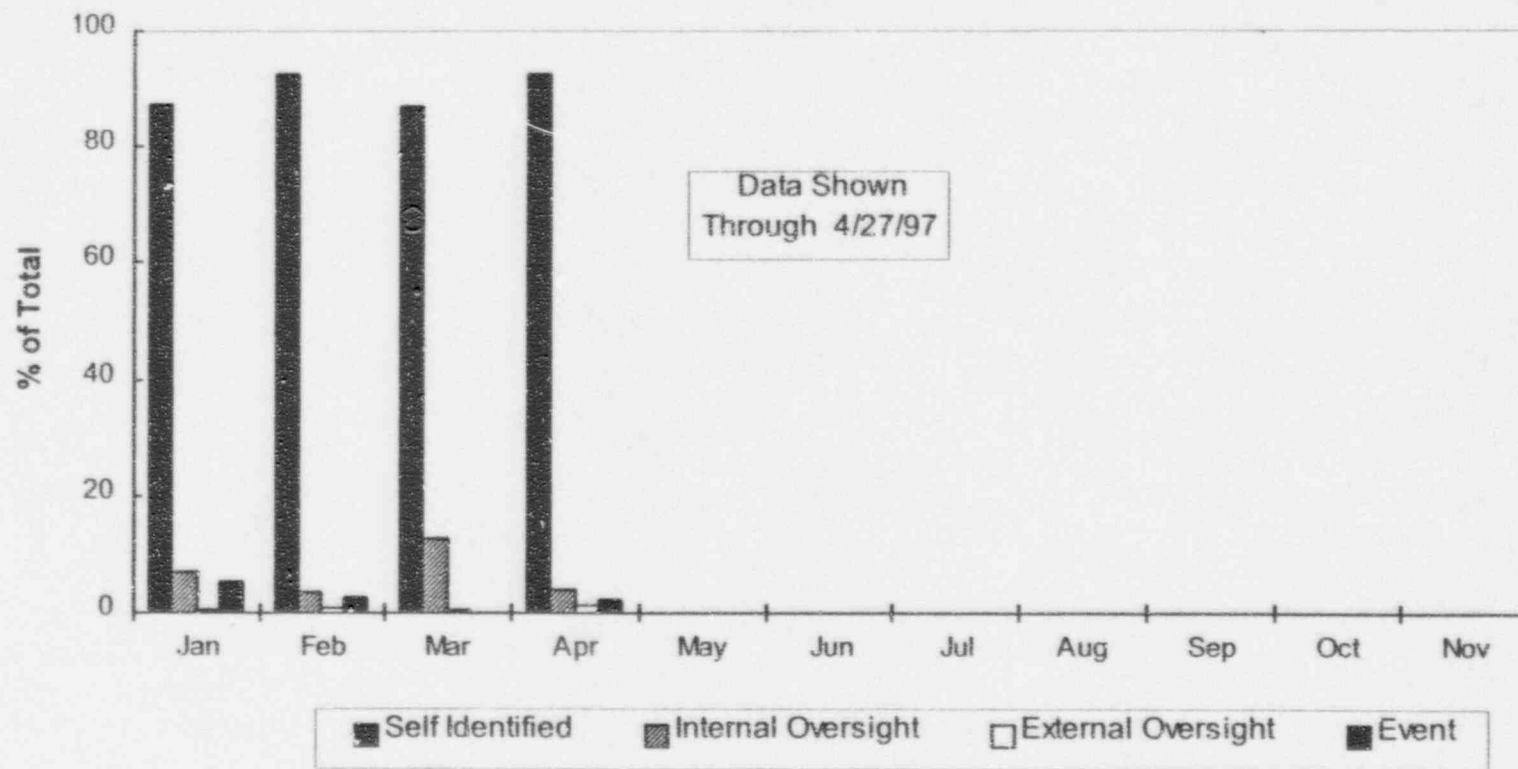
# Unit 1 - Condition Report Initiation and Evaluation Timeliness



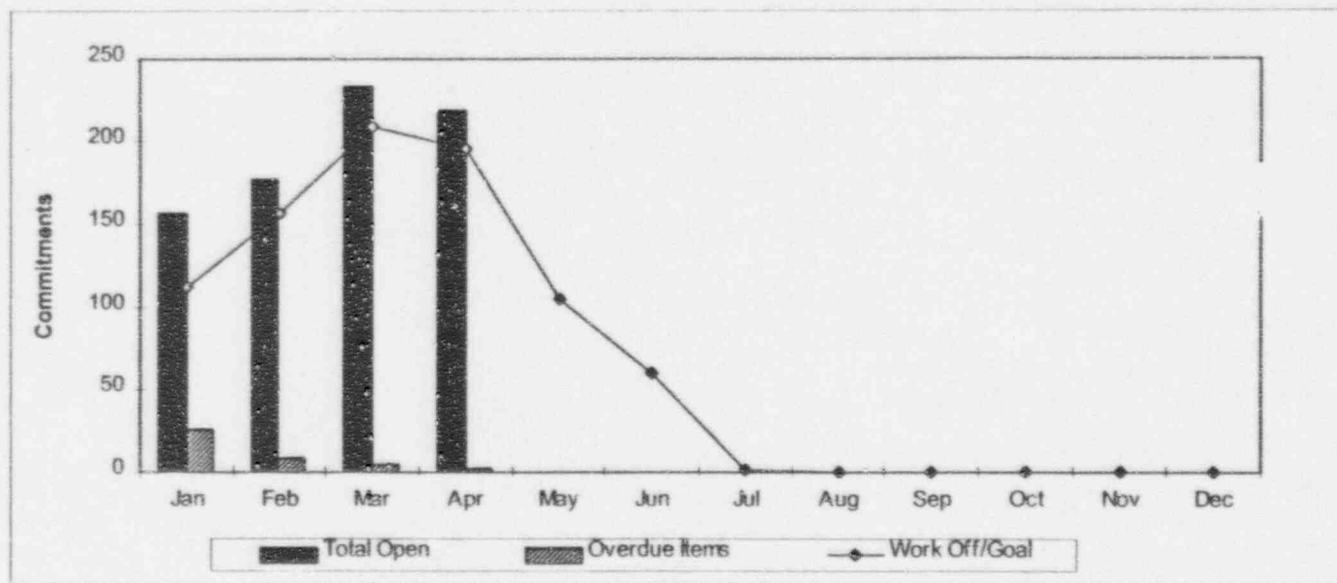
# Unit 1 - Open Power Block Condition Reports



# Unit 1 - Condition Report Method of Discovery

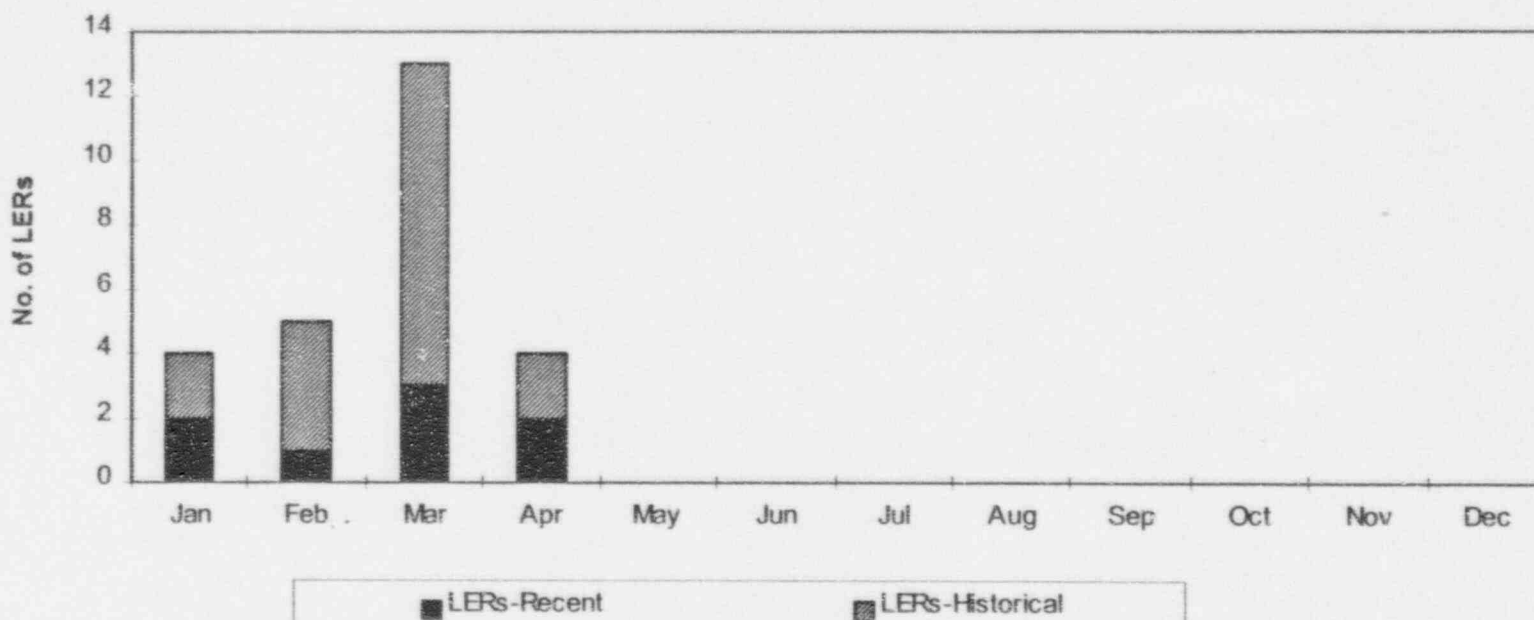


# Unit 1 - Open NRC Commitments for Restart

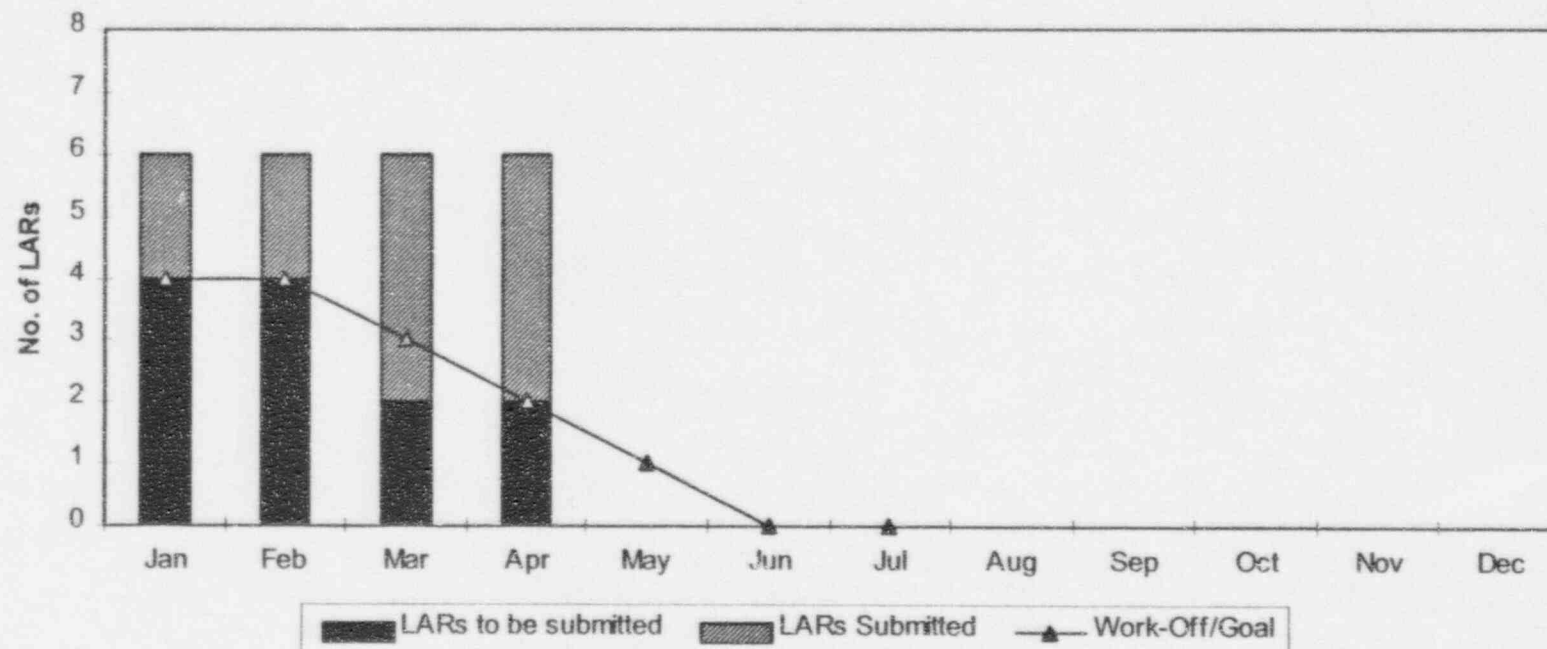




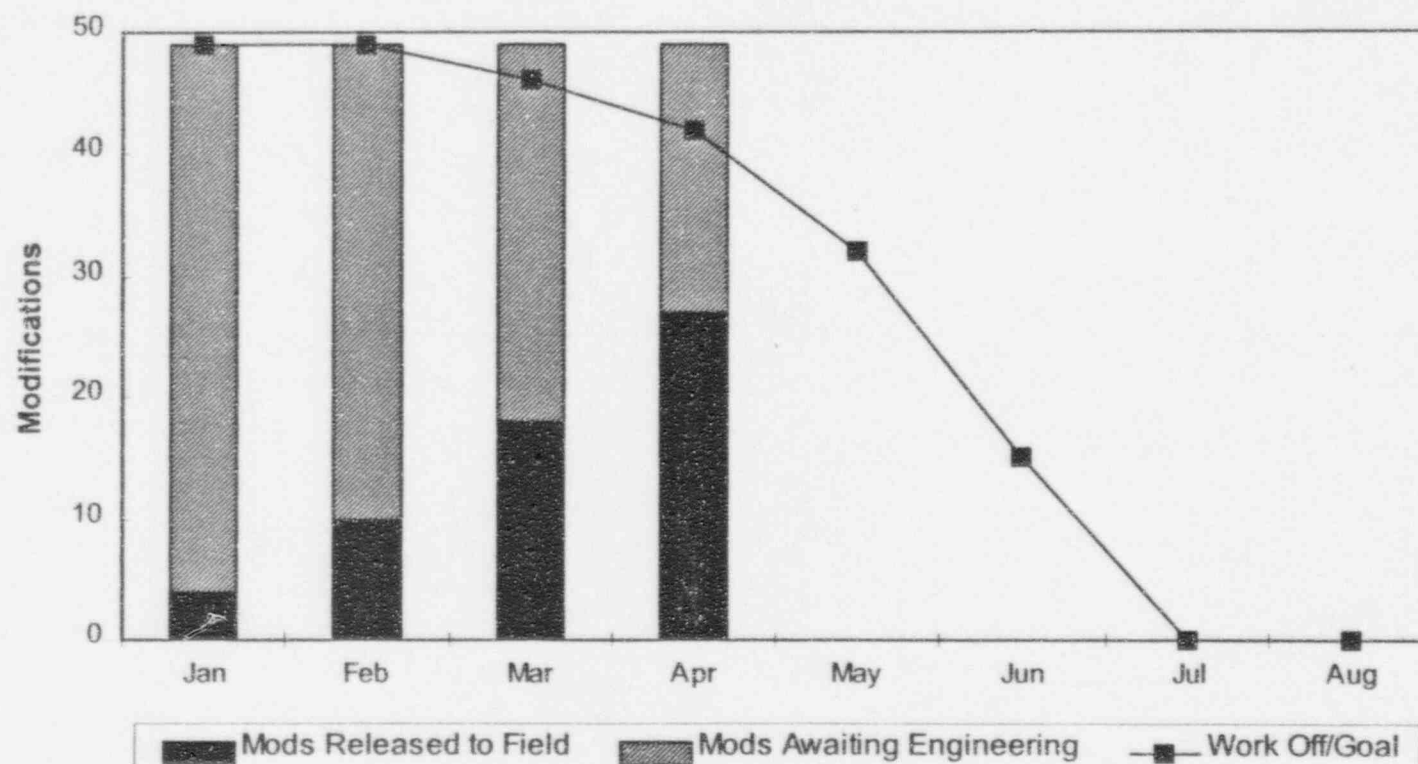
# Unit 1 - Licensee Event Reports



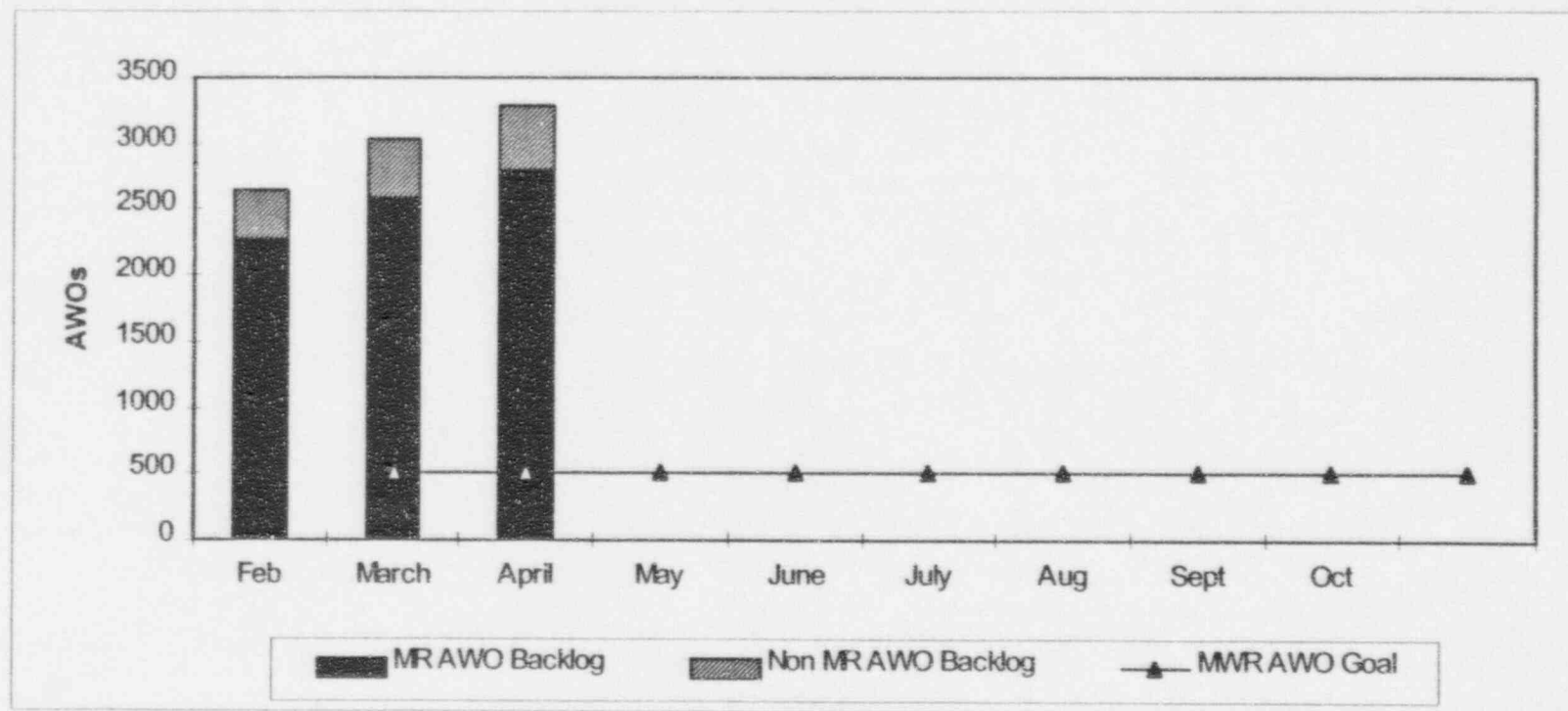
# Unit 1 - License Amendment Requests



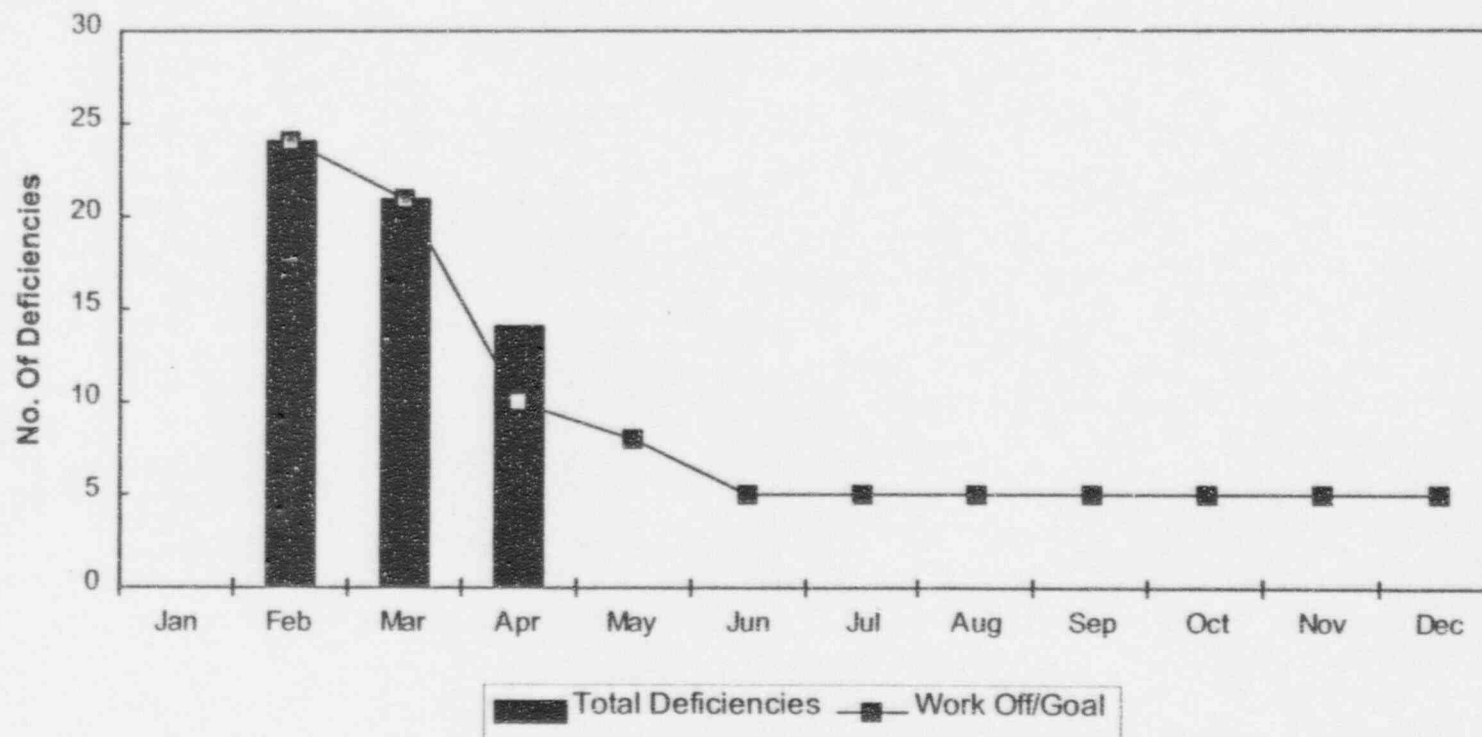
# Unit 1 - Restart Modifications Awaiting Implementation



# Unit 1 - AWOs Required for Restart

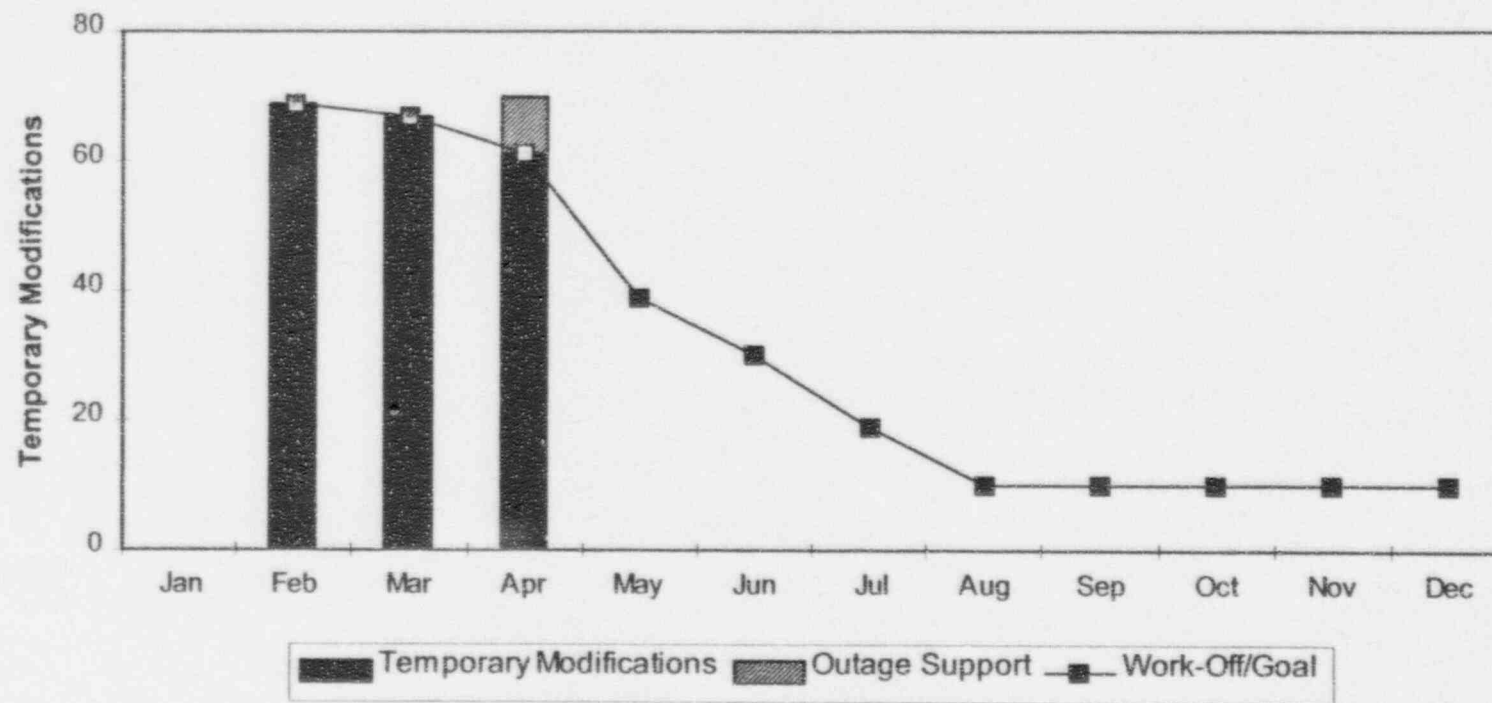


# Unit 1 - Control Room and Annunciator Deficiencies



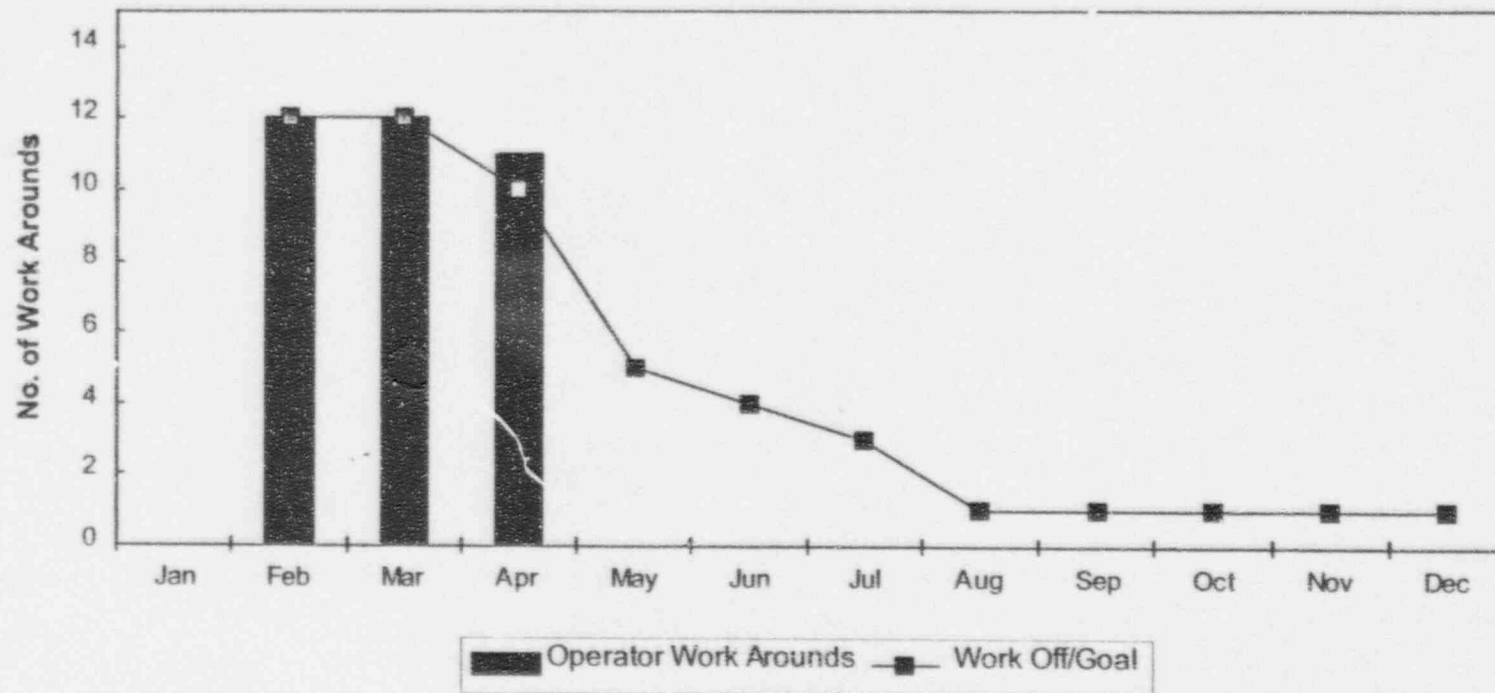
*Northeast Nuclear Energy*

# Unit 1 - Temporary Modifications

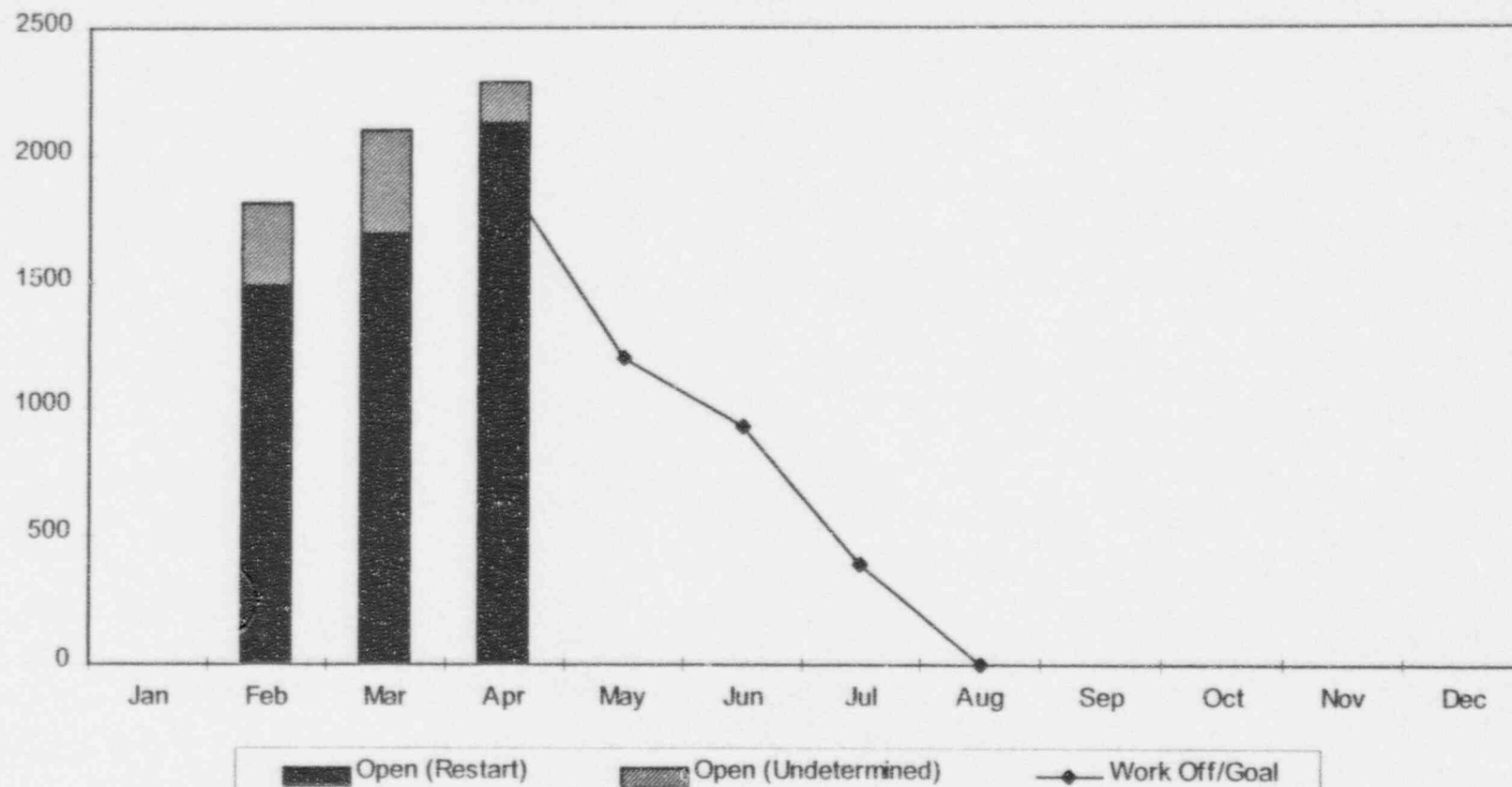




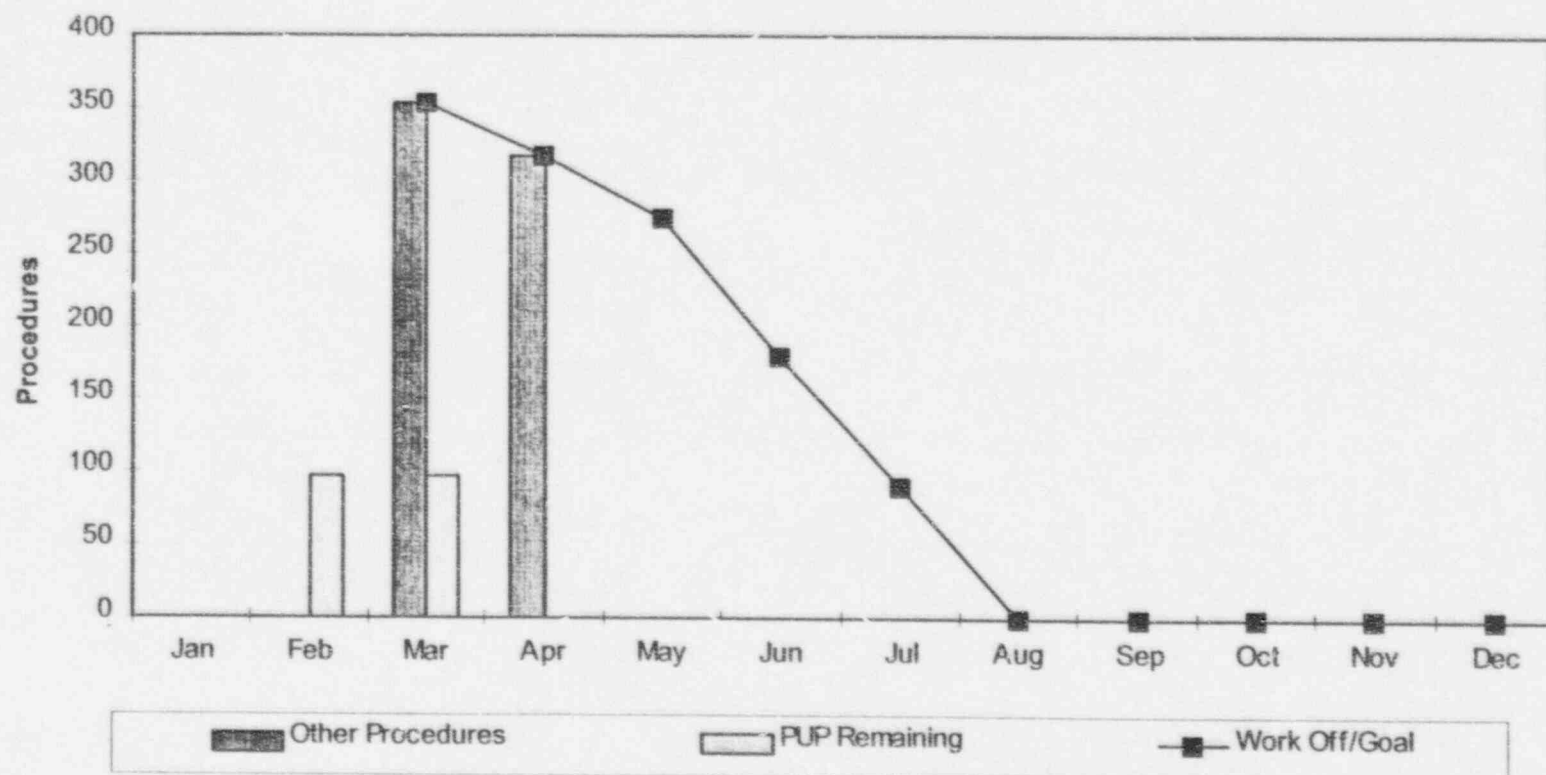
# Unit 1 - Operator Work Arounds



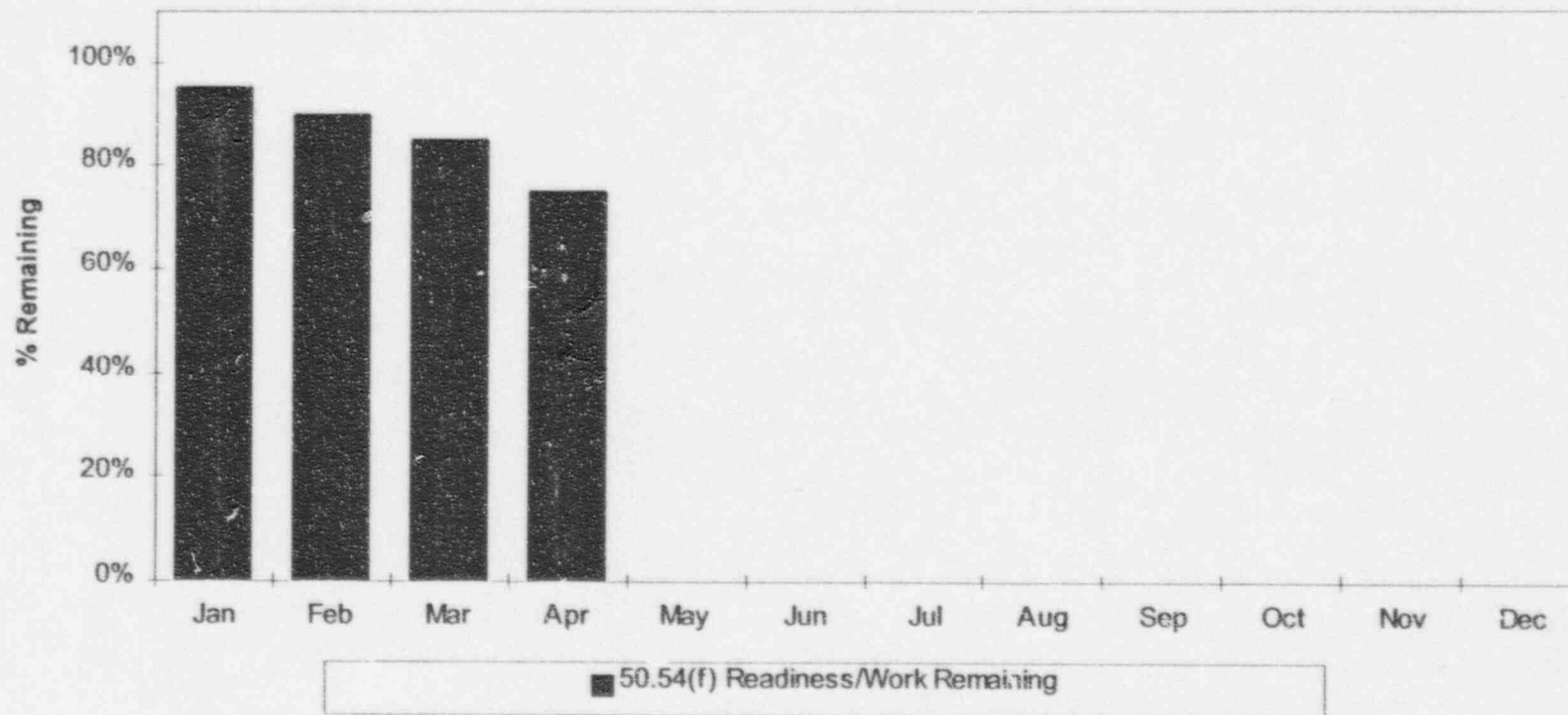
# Unit 1 - Task Completions Required for Restart



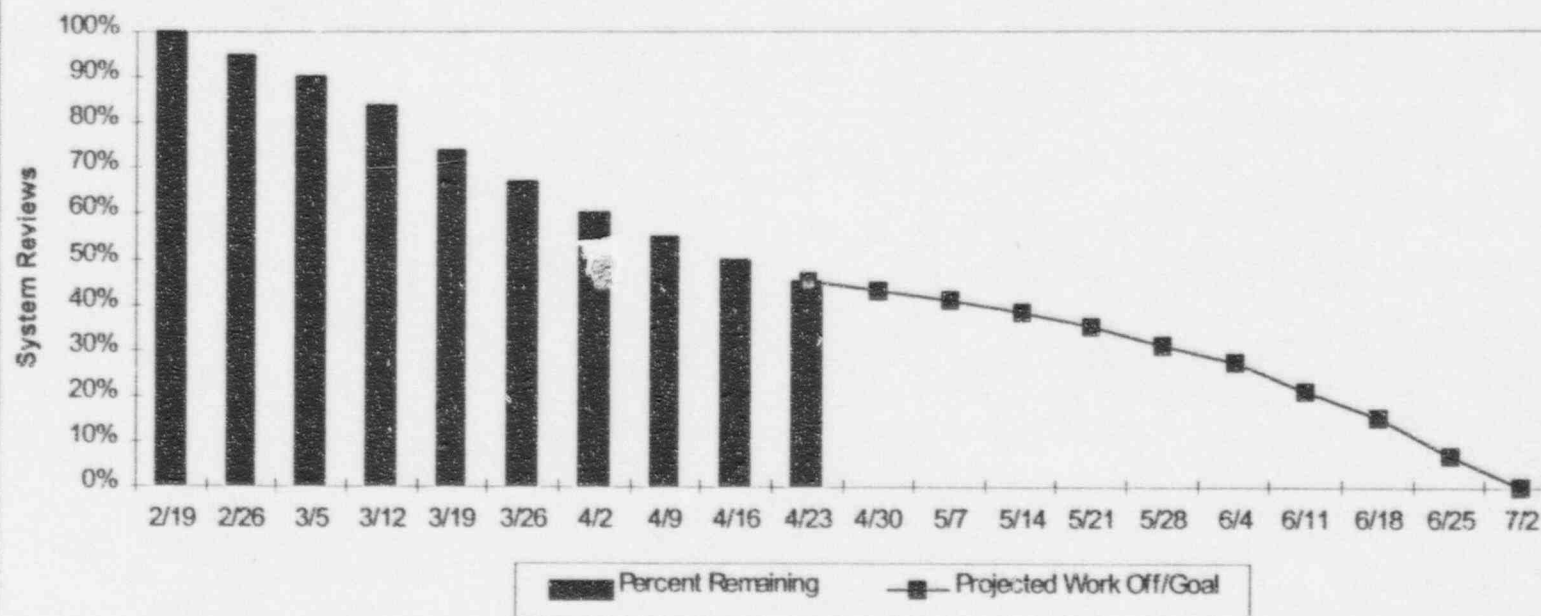
# Unit 1 - Procedure Revision Backlog



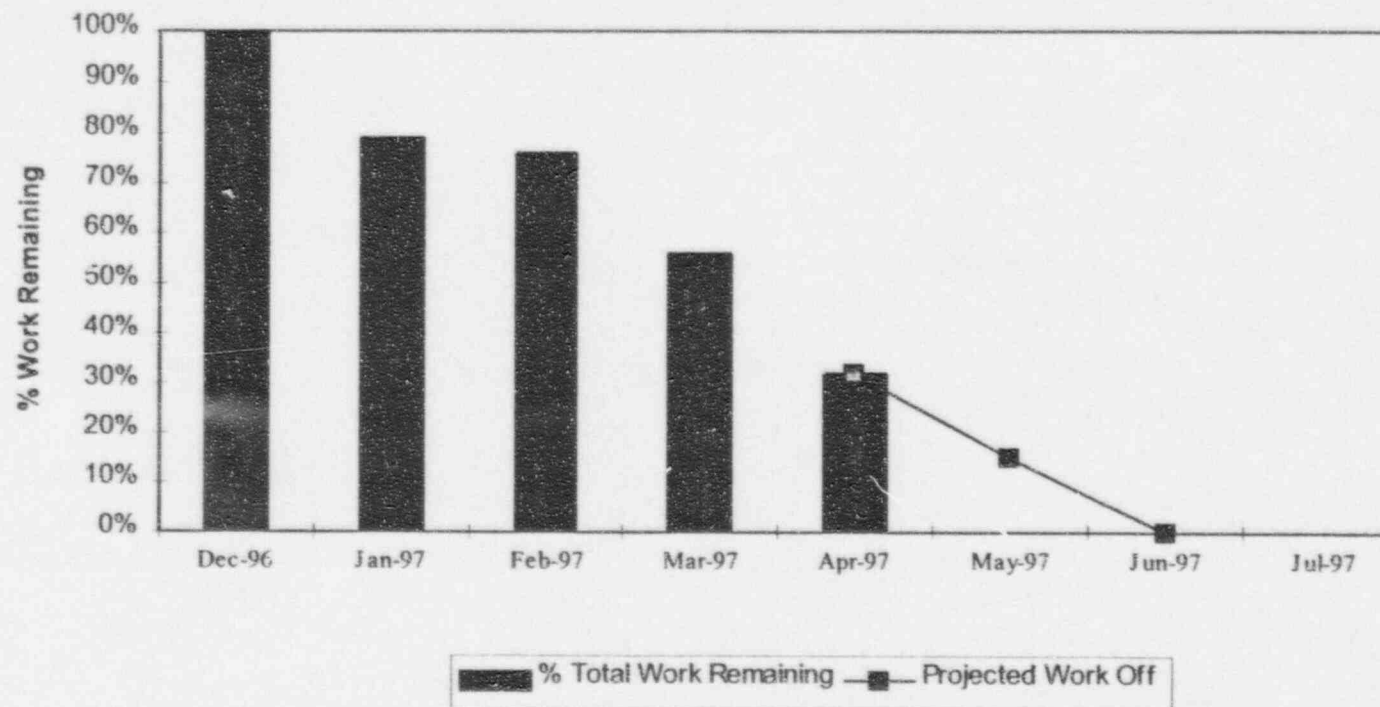
# Unit 1 - 10CFR50.54(f) Readiness for Submittal



# Unit 1 System Readiness for ICAVP (17 Systems)

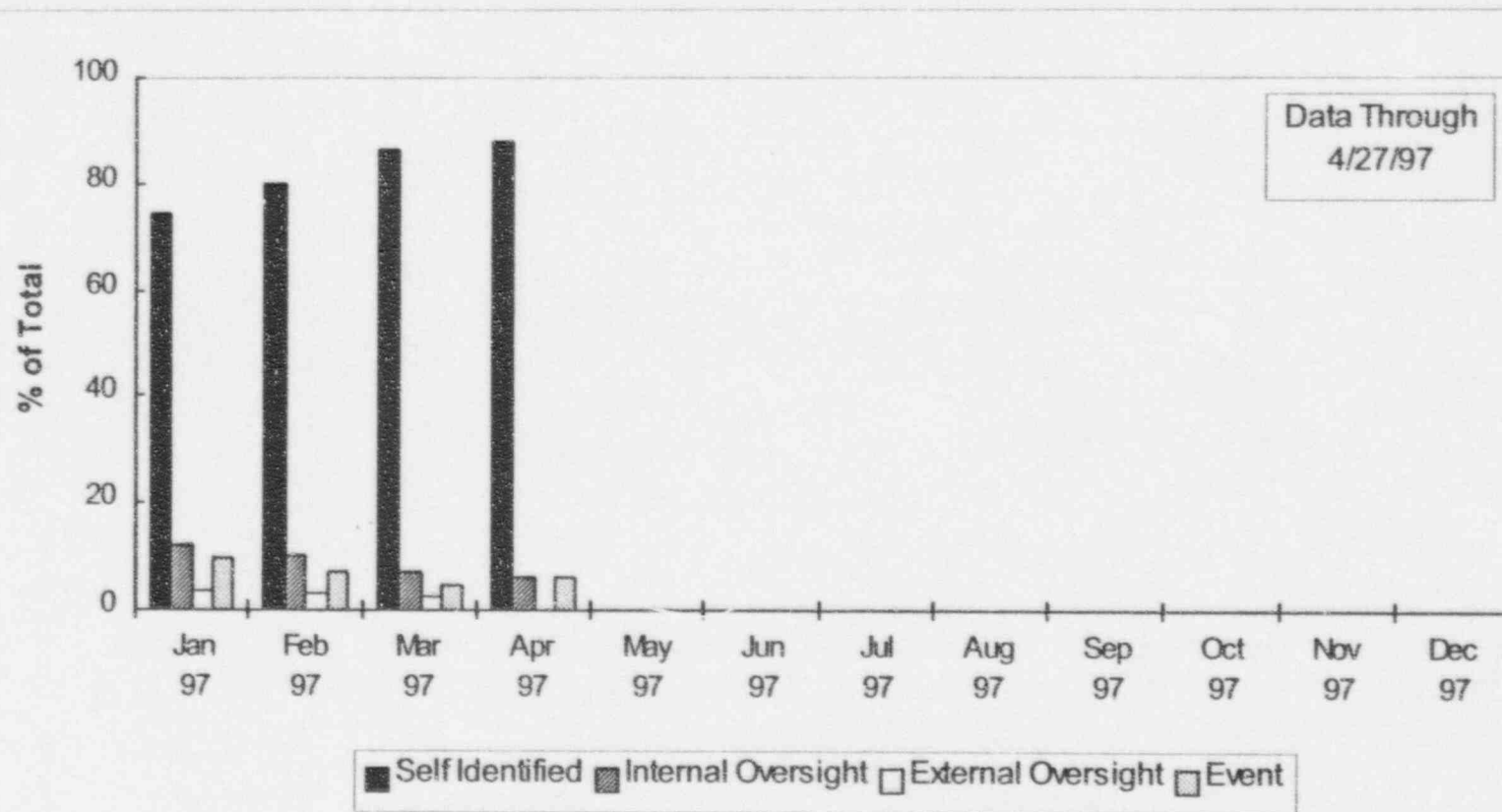


# Unit 1 - CMP Programs and Topical Areas





## Unit 2 - Condition Report Method of Discovery



# MP 2 Backup Slides

# **Marty Bowling Backup Slides on Standards**

*Northeast Nuclear Energy*

# **Nuclear Safety**

- ♦ **Developed and issued site-wide nuclear safety standards and expectations**
- ♦ **Clarified STA roles and expectations**
- ♦ **Increased licensed operator training on unit's operational limits and margins**
- ♦ **Evaluating licensed operators on conservative decision-making competencies**

# **Nuclear Safety** *(continued)*

- ◆ Developed operations standards on command & control, communications, and reactivity control
- ◆ Focused outage repairs and corrective actions on most important safety systems
- ◆ No significant events

# **Leadership and Management Expectations**

- ♦ Providing and reinforcing clear expectations for nuclear safety, defense-in-depth, meeting commitments, self assessment, and addressing employee concerns
- ♦ Conducted leadership training for first-line supervisors and above with periodic follow-up
- ♦ Conducting leadership training for licensed operators during LORT



# **Leadership and Management Expectations**

- ◆ Identified key behaviors critical to team success which stress accountability
- ◆ Improved professionalism in the control room and in the conduct of operations -- automated log keeping
- ◆ No missed NRC commitments in 1997

# **Training**

- ◆ **Established line ownership for training**
- ◆ **Provided expectation of 100% attendance**
- ◆ **Established unit and executive committees to monitor and enhance training**
- ◆ **Management is observing training**

# **Self Assessment**

- ◆ **Set clear expectations**
- ◆ **Training being conducted for first-line supervisors and above**
- ◆ **Developed department self-assessment plans for 1997**

# **Self Assessment**

- ♦ Continuing benchmarking with recent efforts in:
  - chemistry
  - ALARA
  - self assessment
  - corrective action
  - environmental qualifications
  - configuration management
- ♦ Operational readiness assessment planned
- ♦ Restart readiness assessment planned

# **Procedure Upgrades**

- ♦ **Established centralized procedures group**
- ♦ **Conducting self assessment to RG 1.33**
- ♦ **Remaining for restart as of 4/30/97**
  - **procedure upgrade project - 151**
  - **emergency operating procedures - 13**
  - **abnormal operating procedures - 57**

# **Corrective Actions**

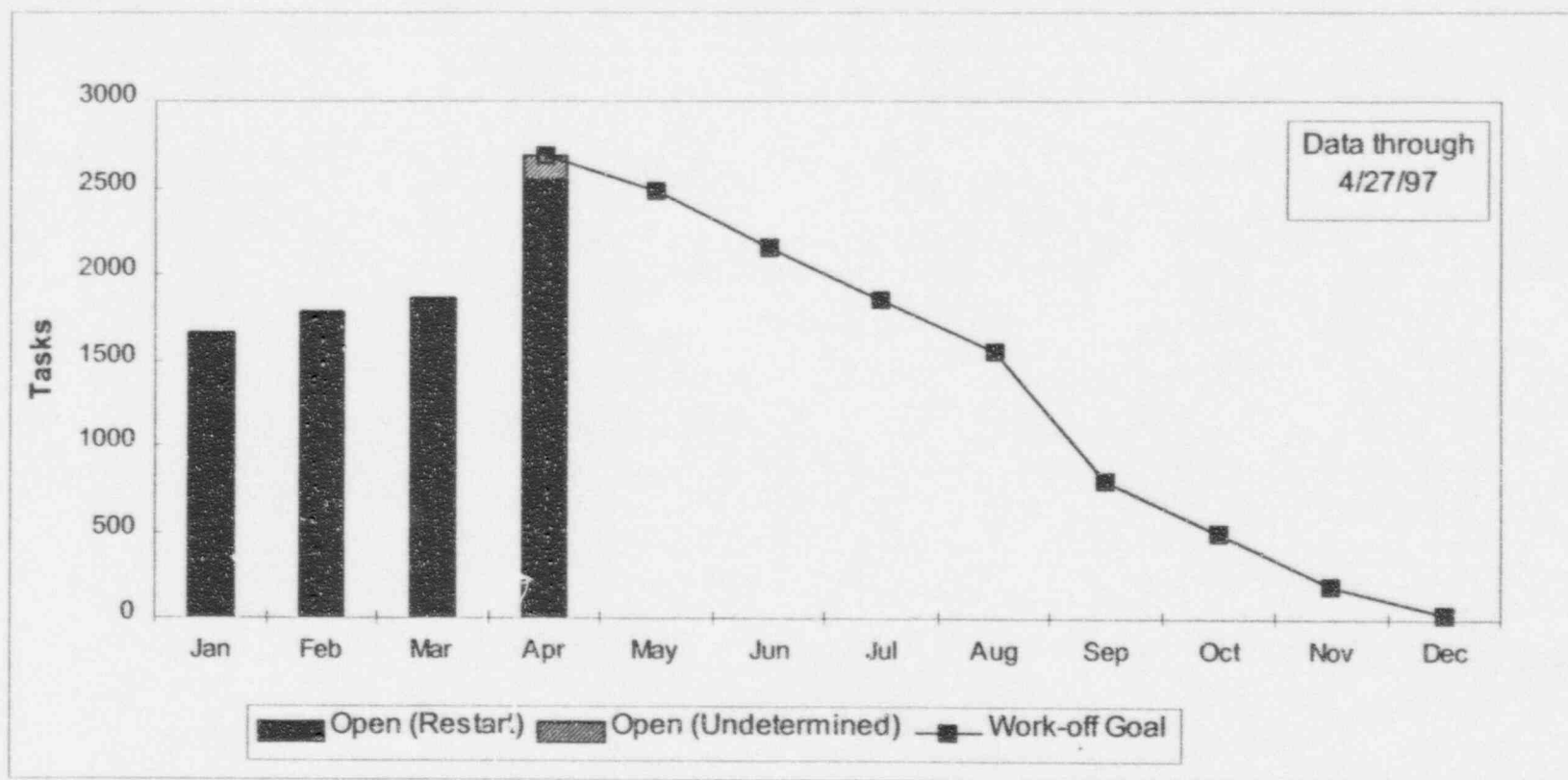
- ♦ **Addressed programmatic weaknesses in revision to RP4**
- ♦ **Strengthened implementation with multi-discipline management review team and training**
- ♦ **Verifying corrective actions before closure**
- ♦ **Completing first trending and self-assessment reports**
- ♦ **Lowered threshold for generation of Condition Reports (~10% more CRs generated year-to-date in 1997 compared to 1996)**



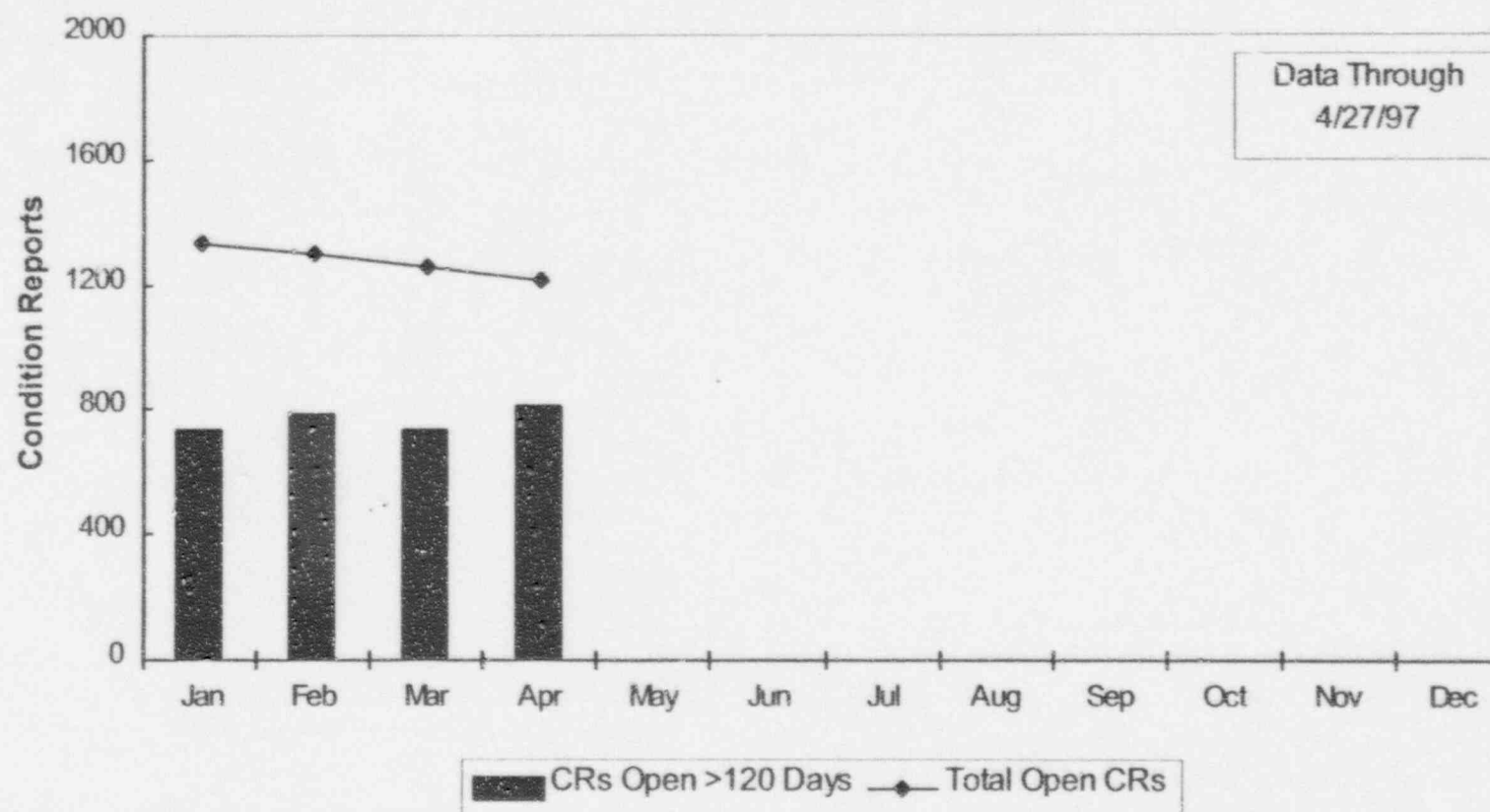
# **Corrective Actions**

- ◆ **More timely reportability reviews of condition reports are taking place.**
- ◆ **Investigation of CRs are taking place within 30 days (backlog >30 days expected to be eliminated by May 1997)**
- ◆ **Twenty closure packages provided to NRC**

## Unit 2 - Task Completions Required for Startup

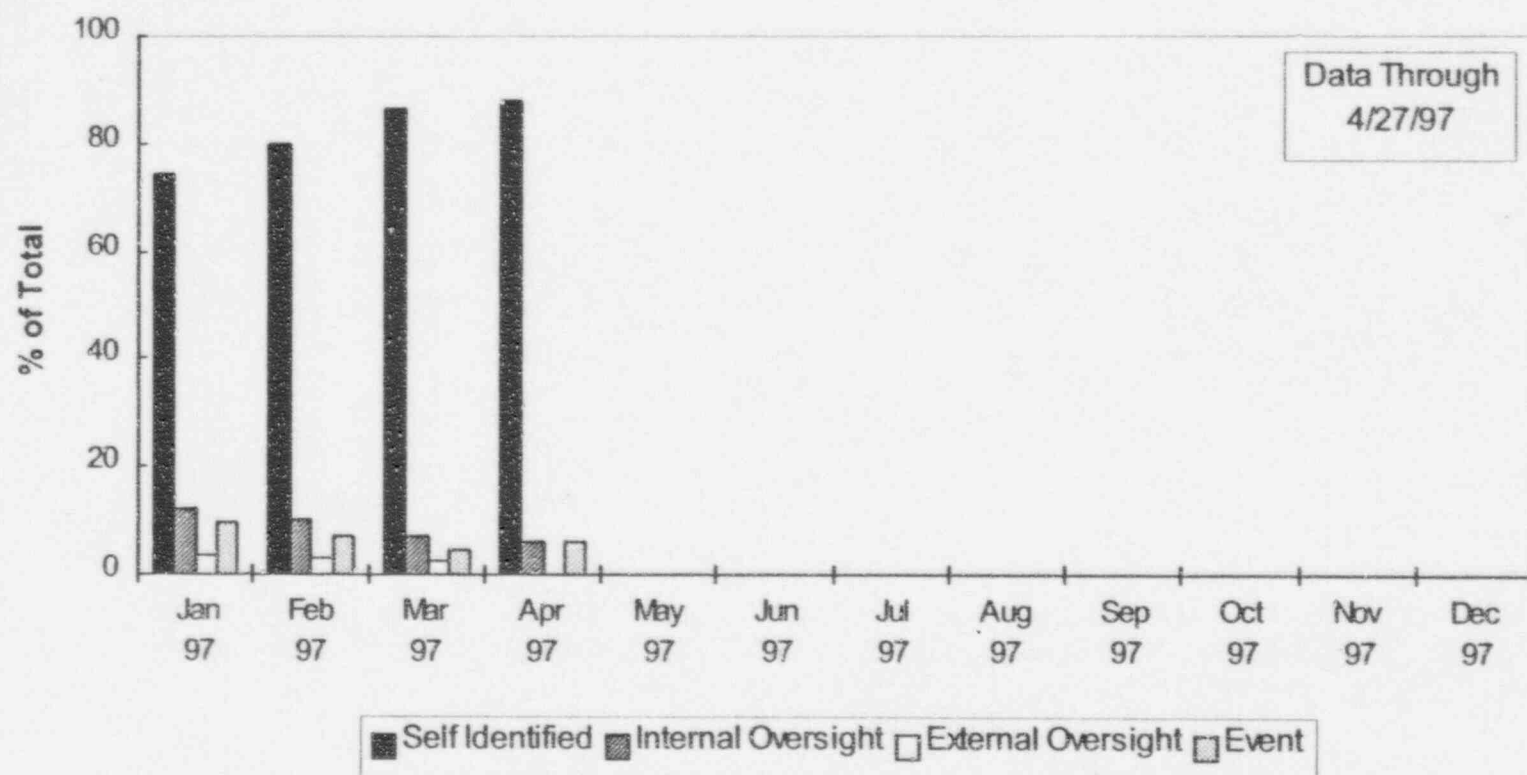


# Unit 2 - Open Power Block Condition Reports

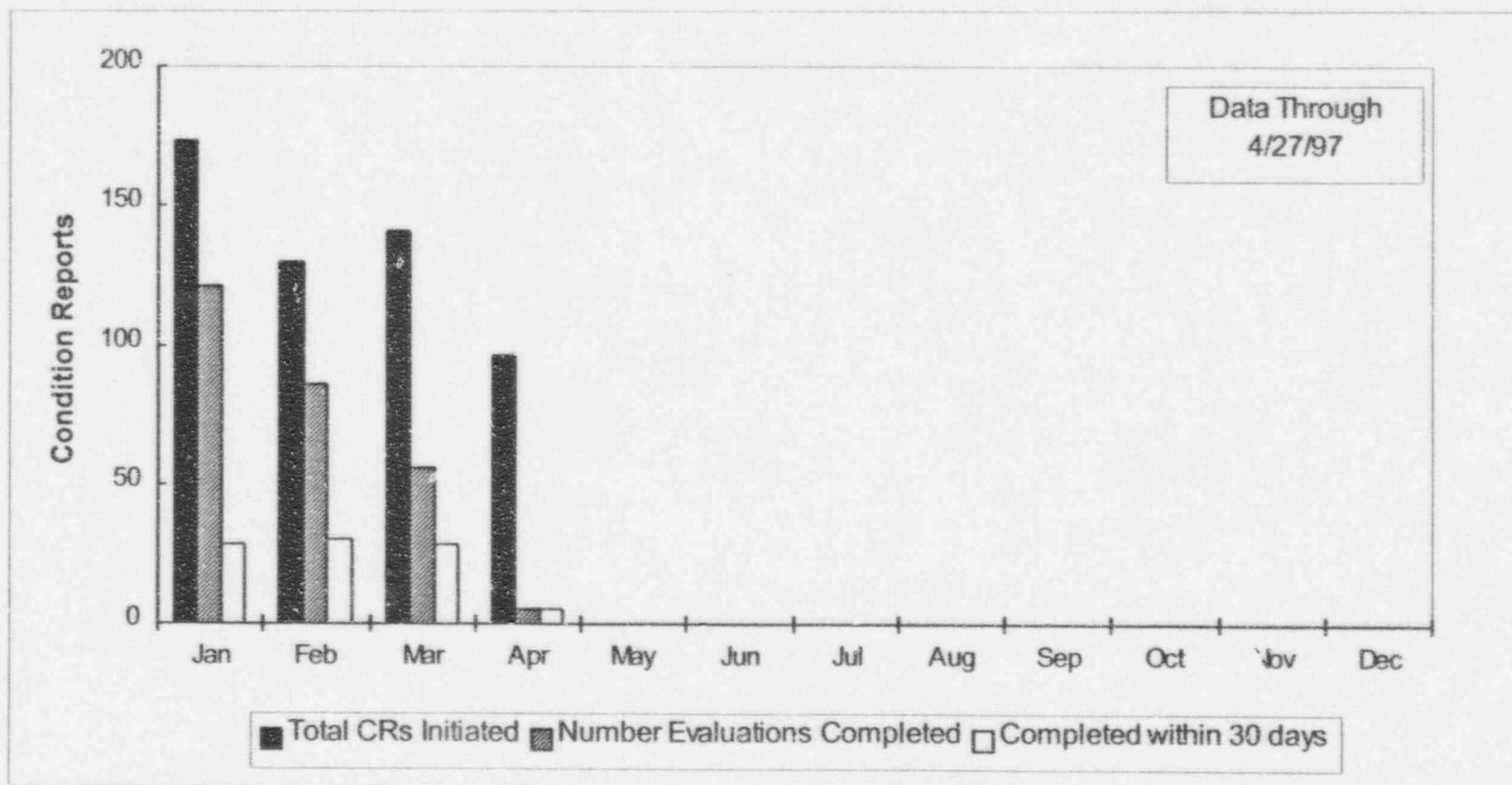


**Northeast Nuclear Energy**

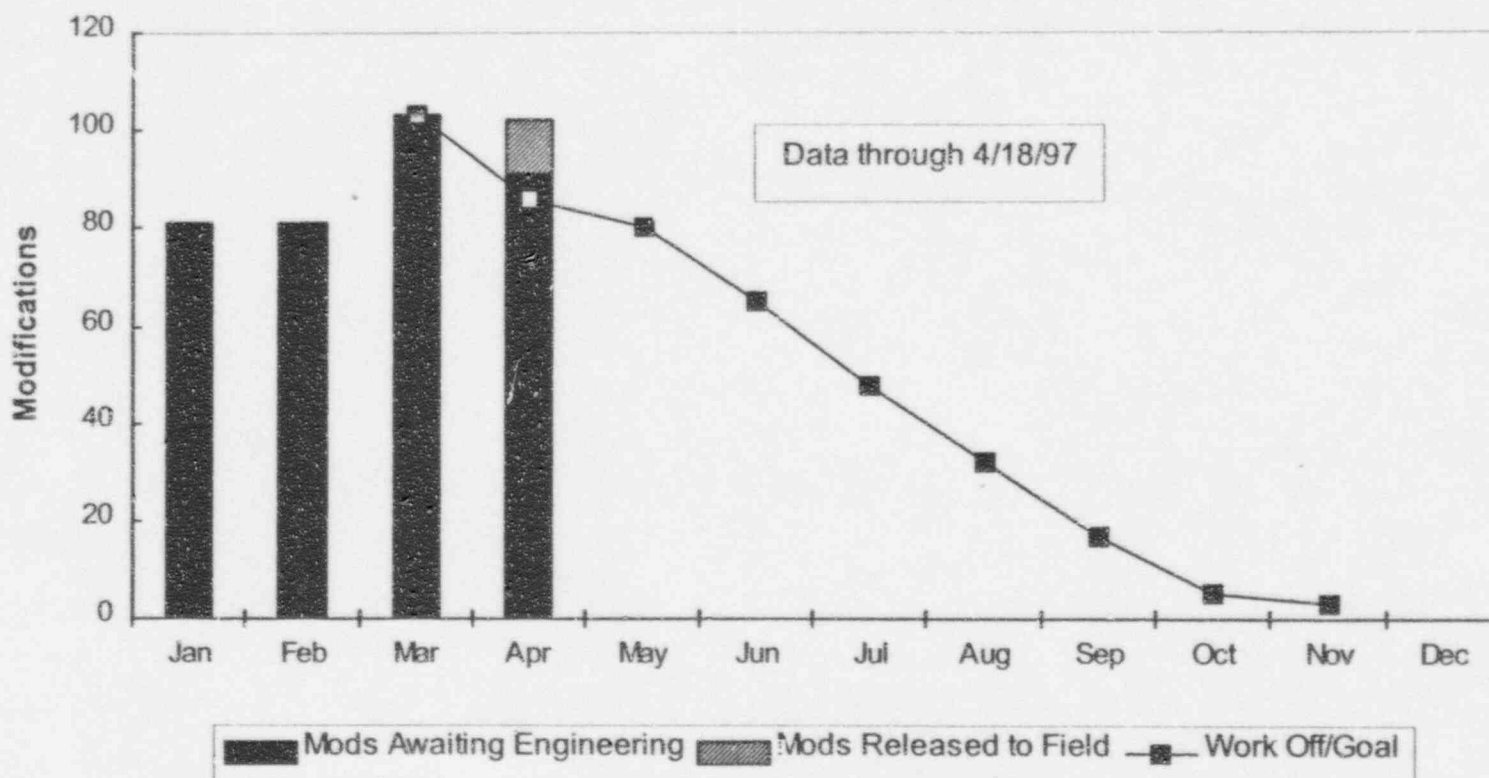
## Unit 2 - Condition Report Method of Discovery



## Unit 2 - Condition Report Initiation and Evaluation Timeliness

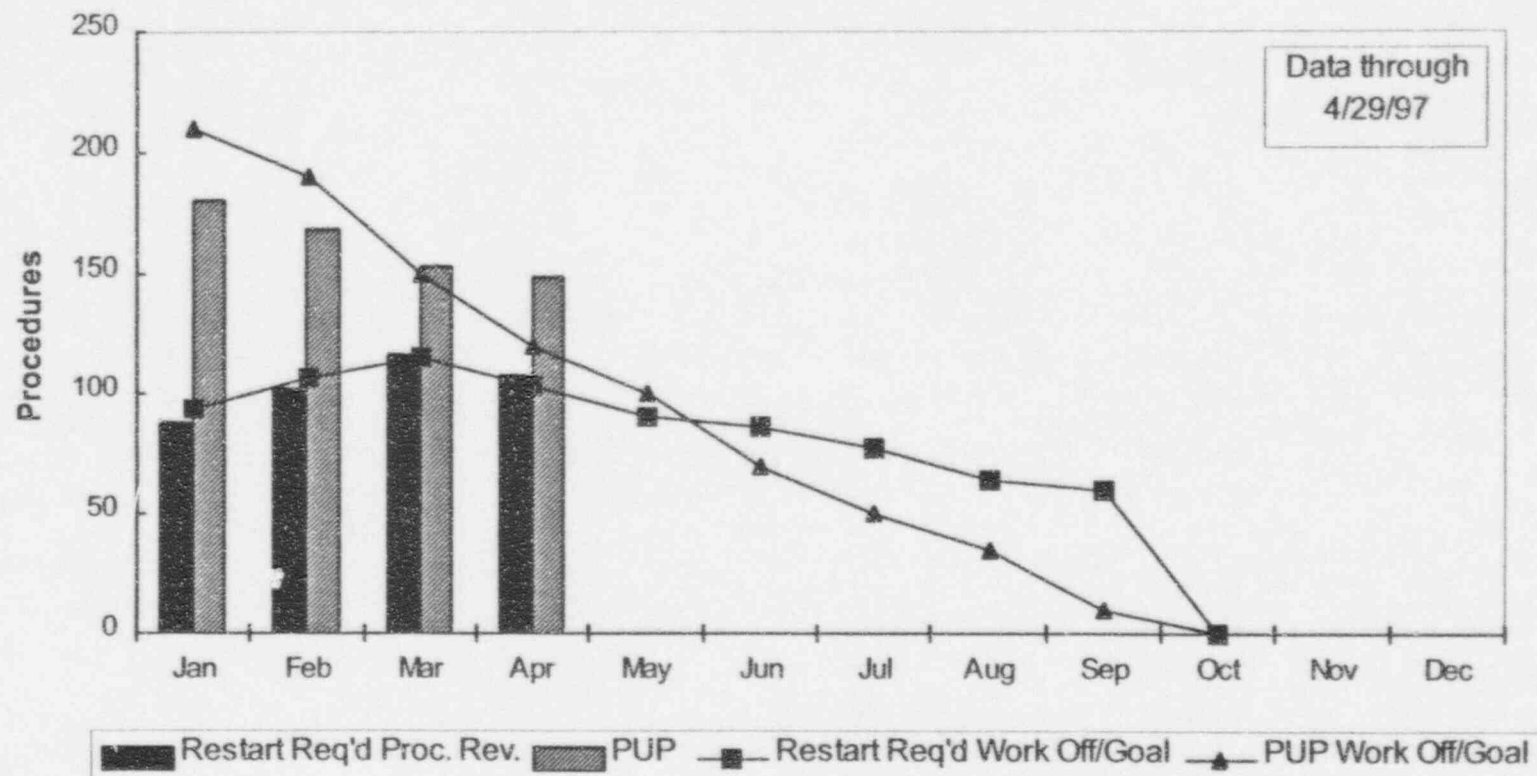


## Unit 2 - Restart Modifications Awaiting Implementation

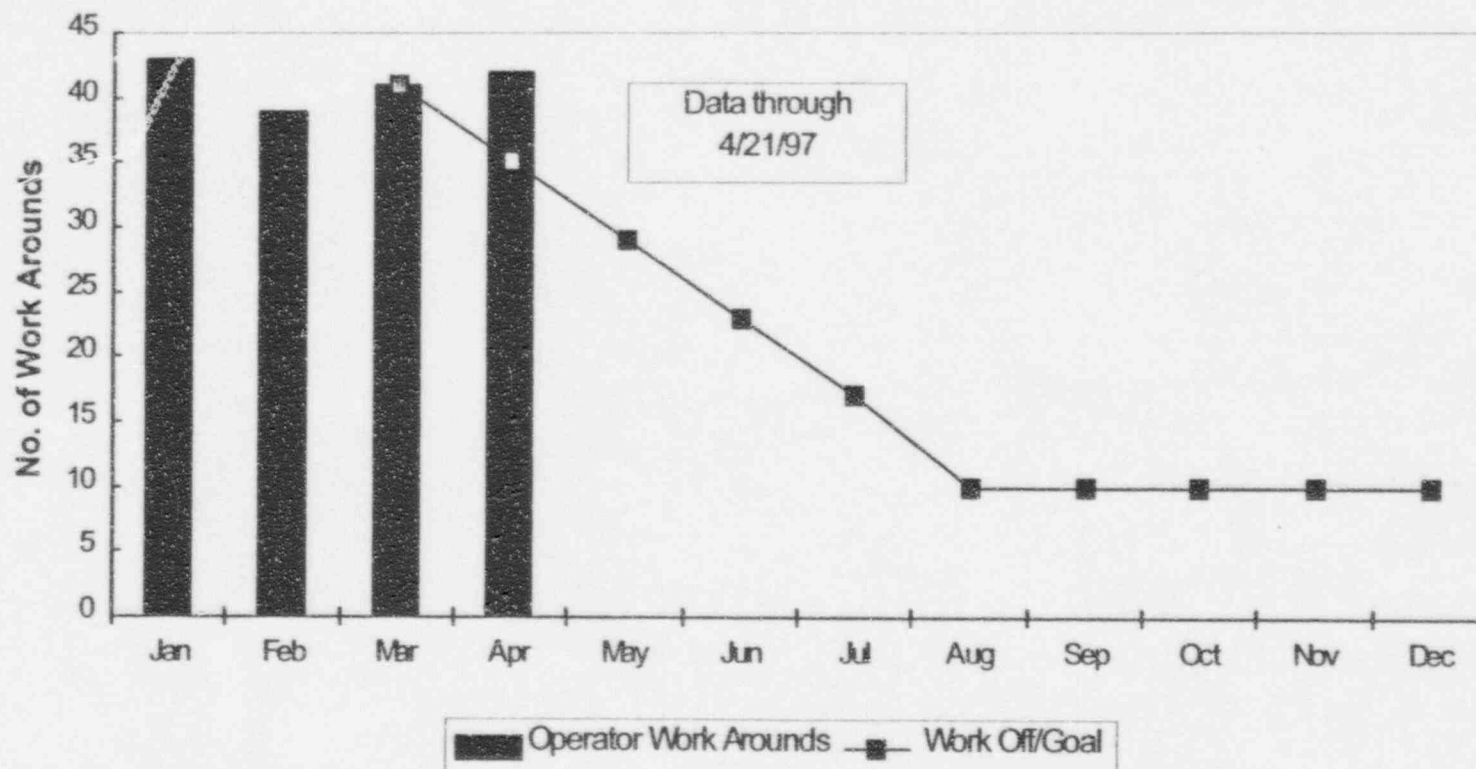




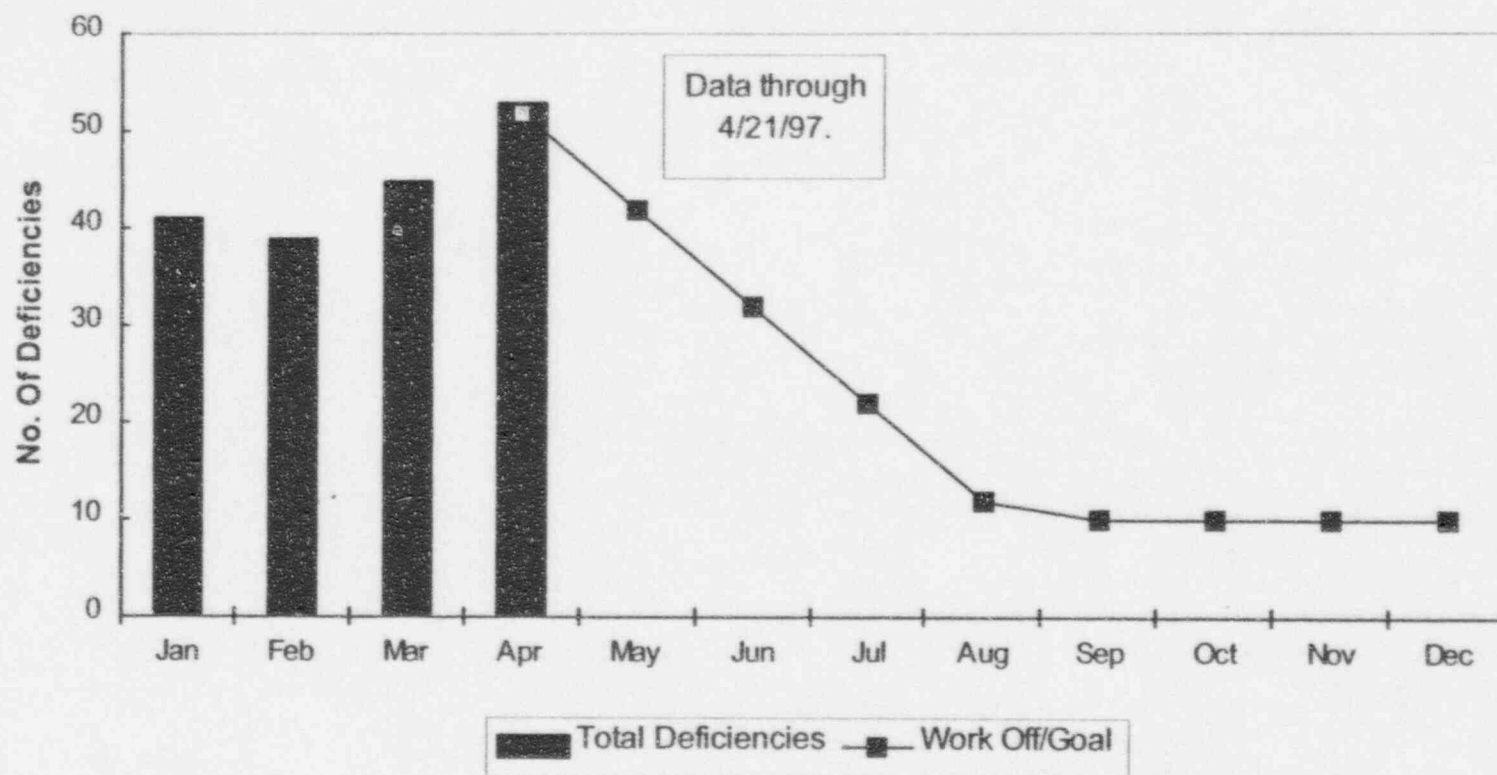
## Unit 2 - Procedure Revision Backlog



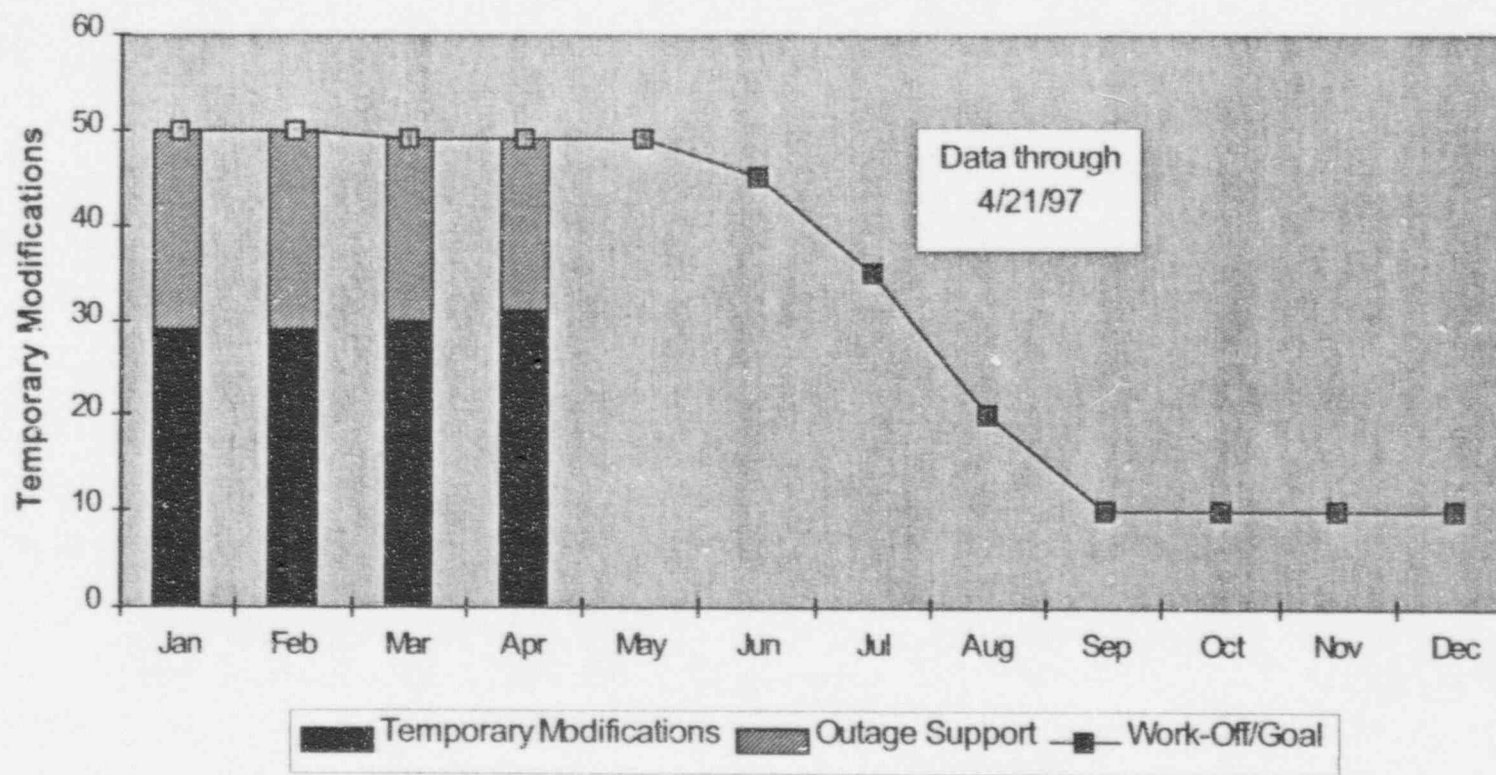
## Unit 2 - Operator Work Arounds



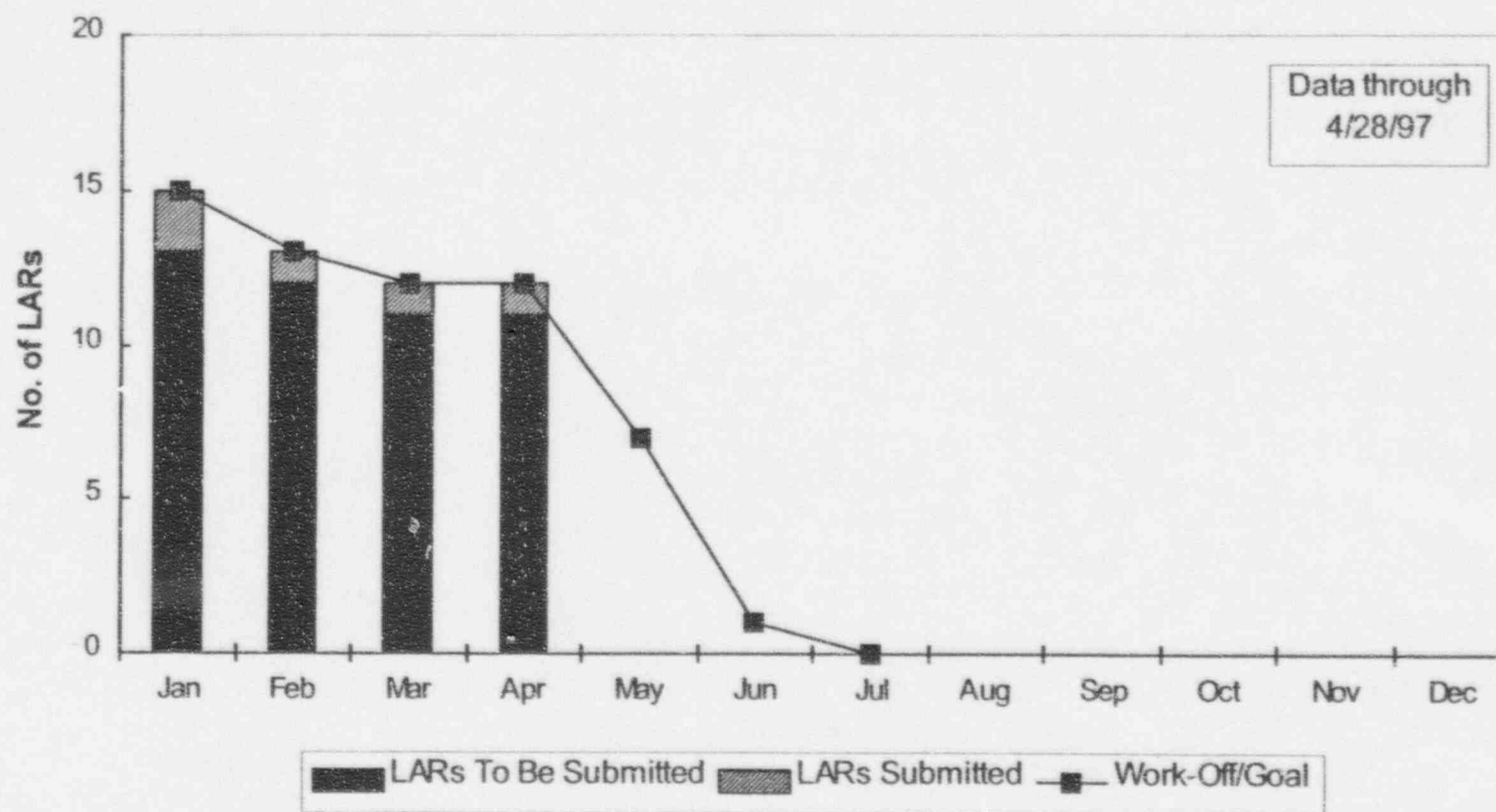
## Unit 2 - Control Room and Annunciator Deficiencies



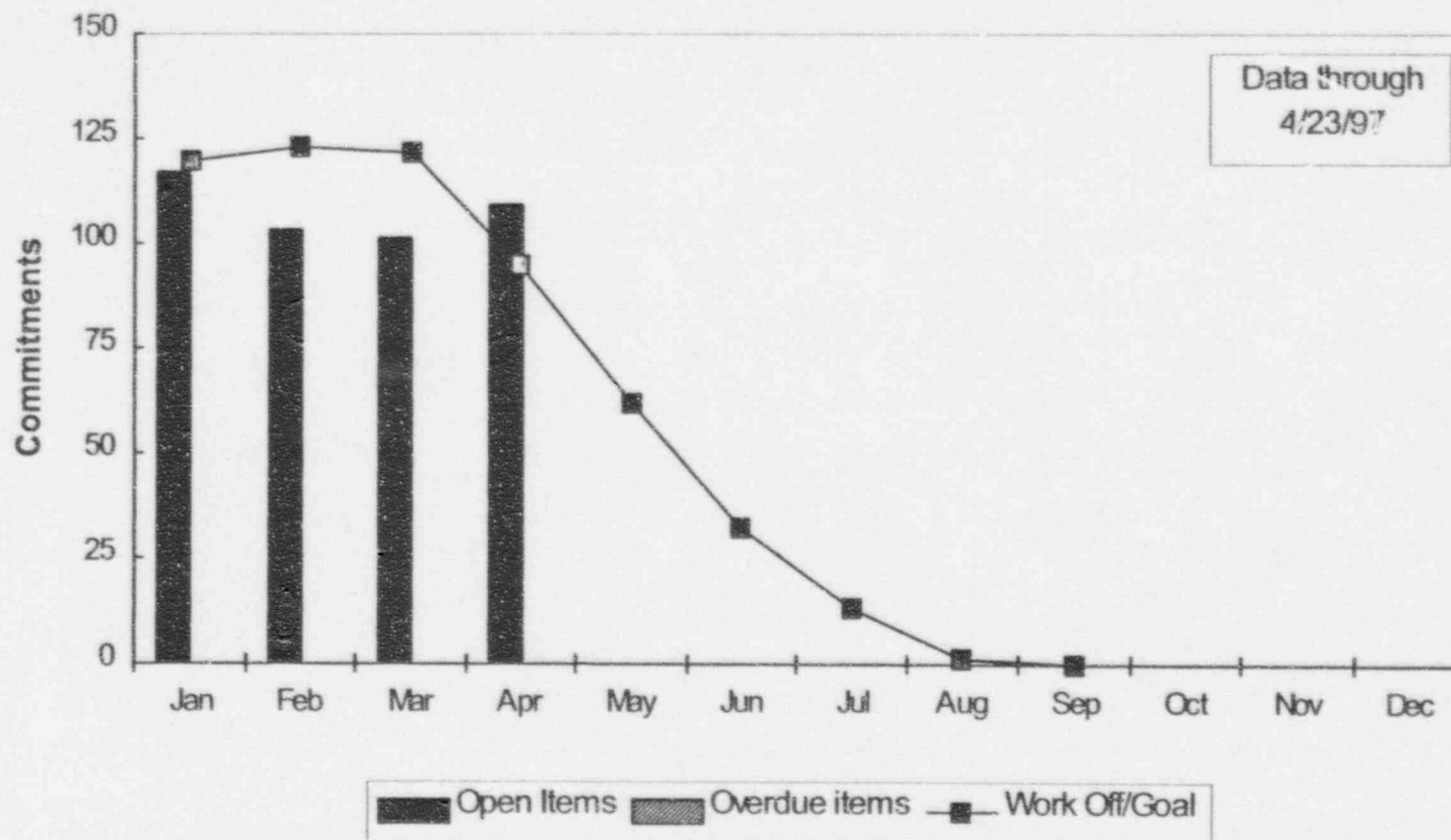
## Unit 2 - Temporary Modifications



## Unit 2 - License Amendment Requests

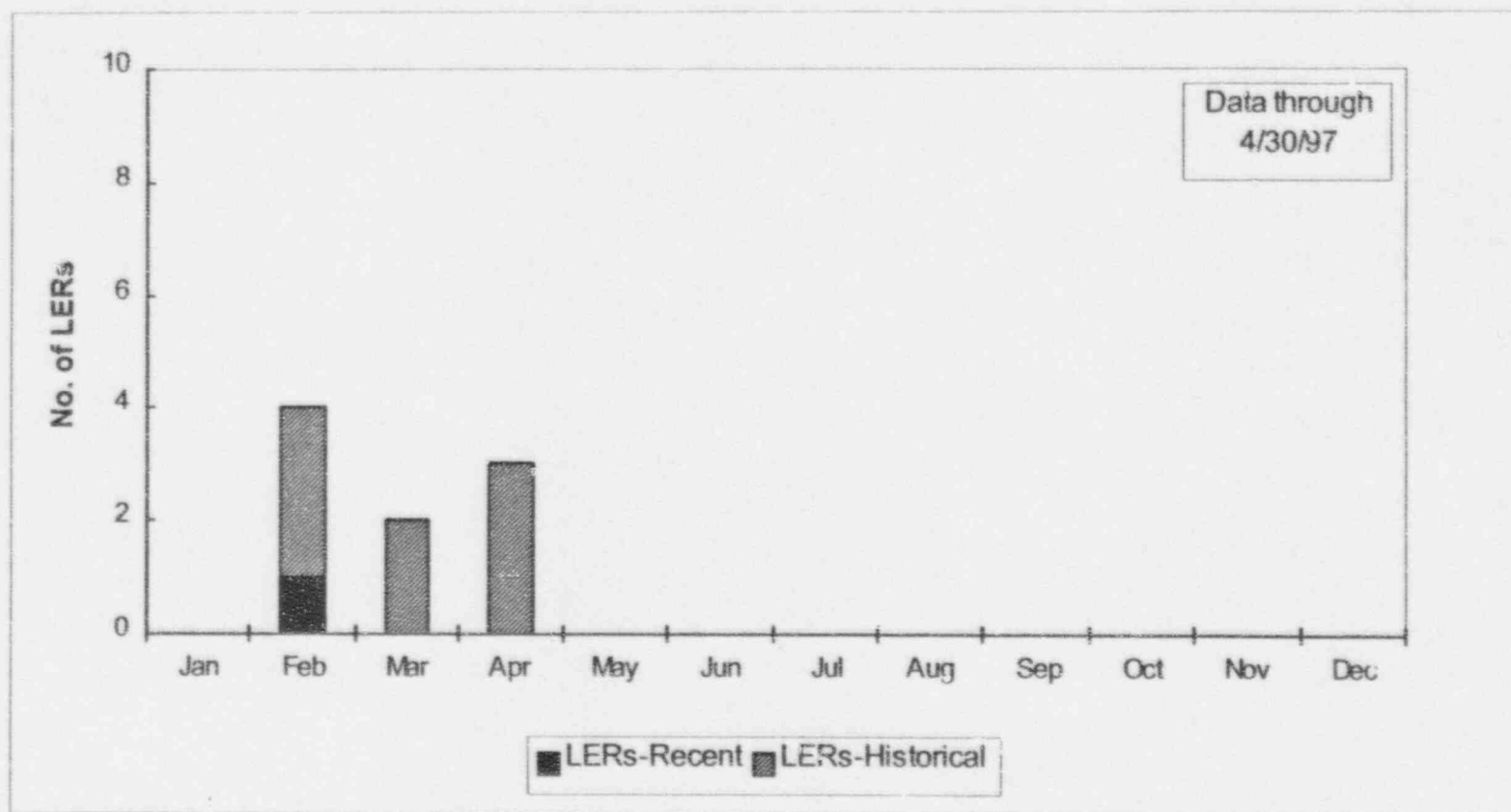


## Unit 2 - Open NRC Commitments for Restart

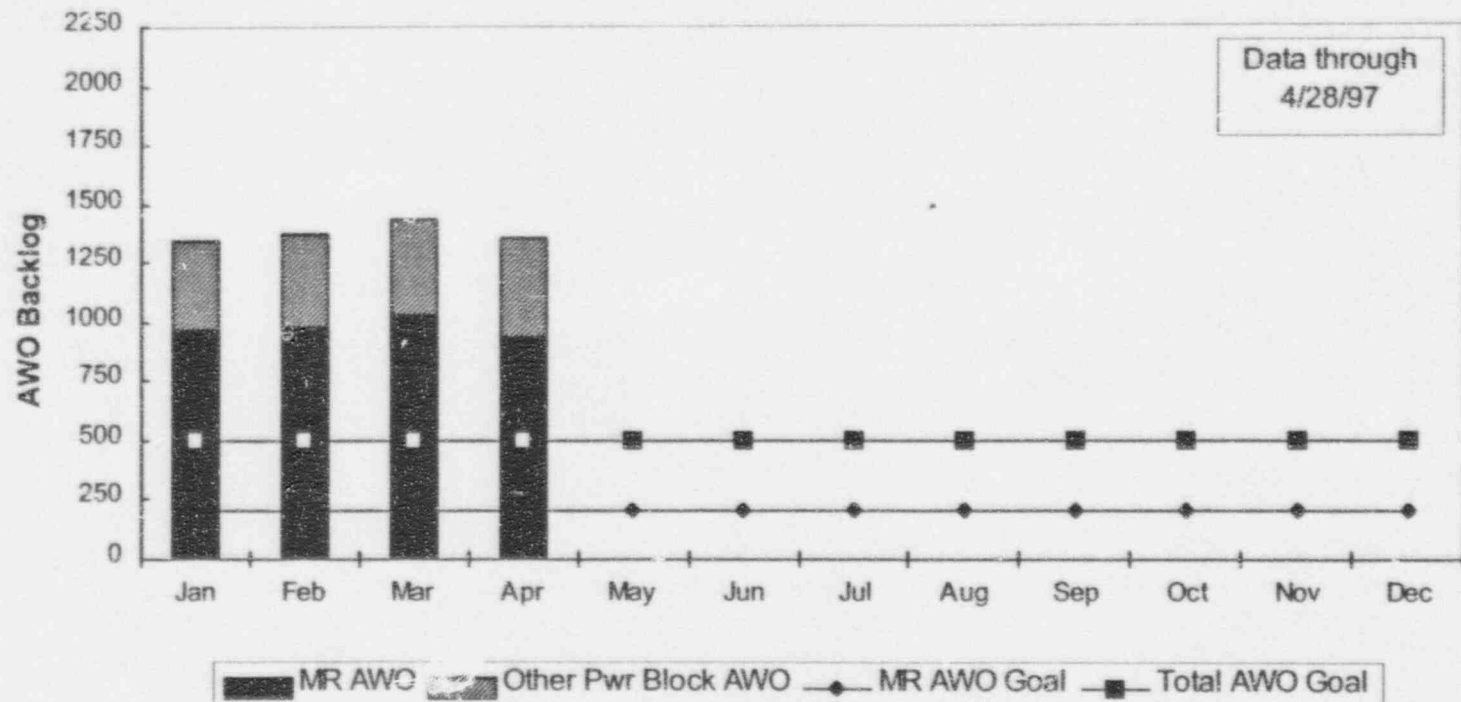




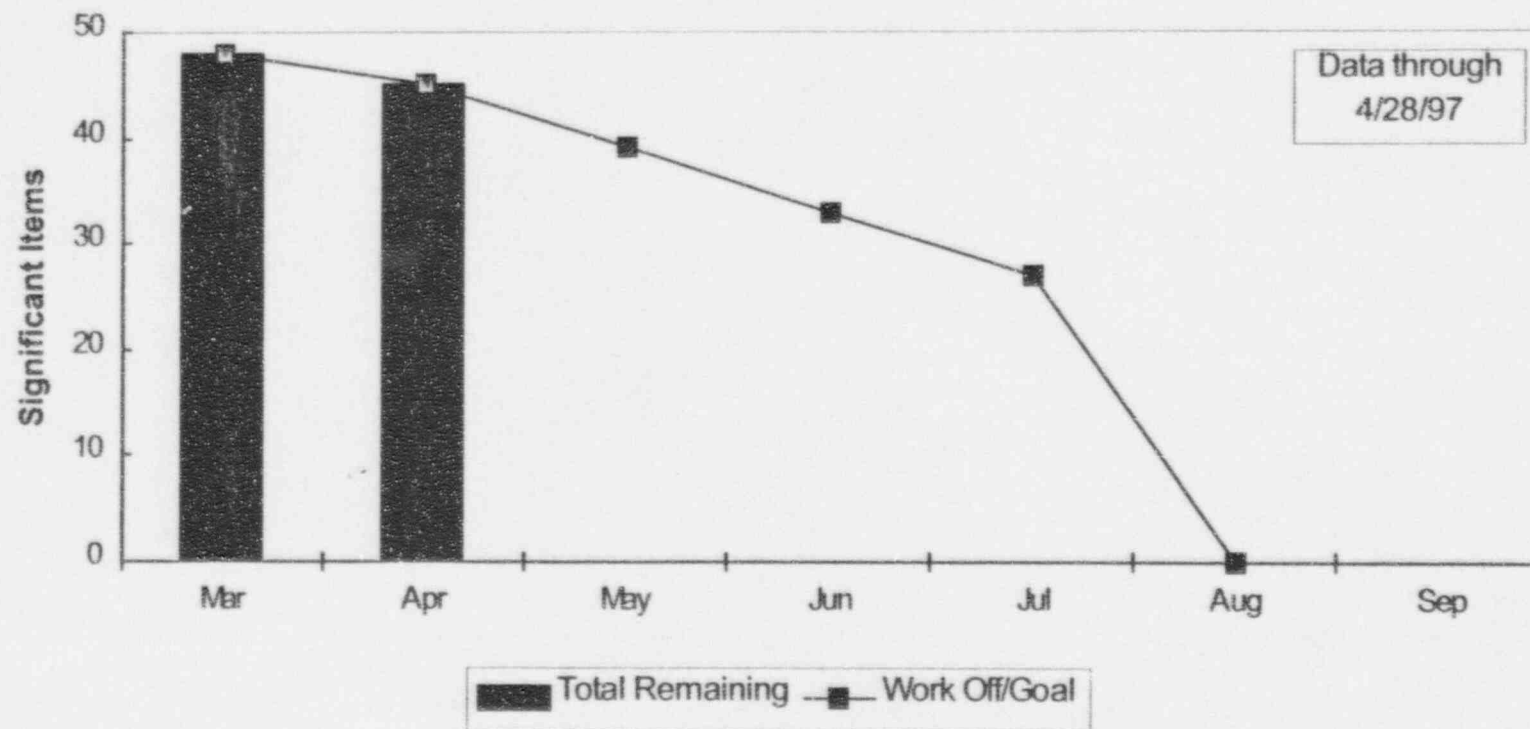
## Unit 2 - Licensee Event Reports



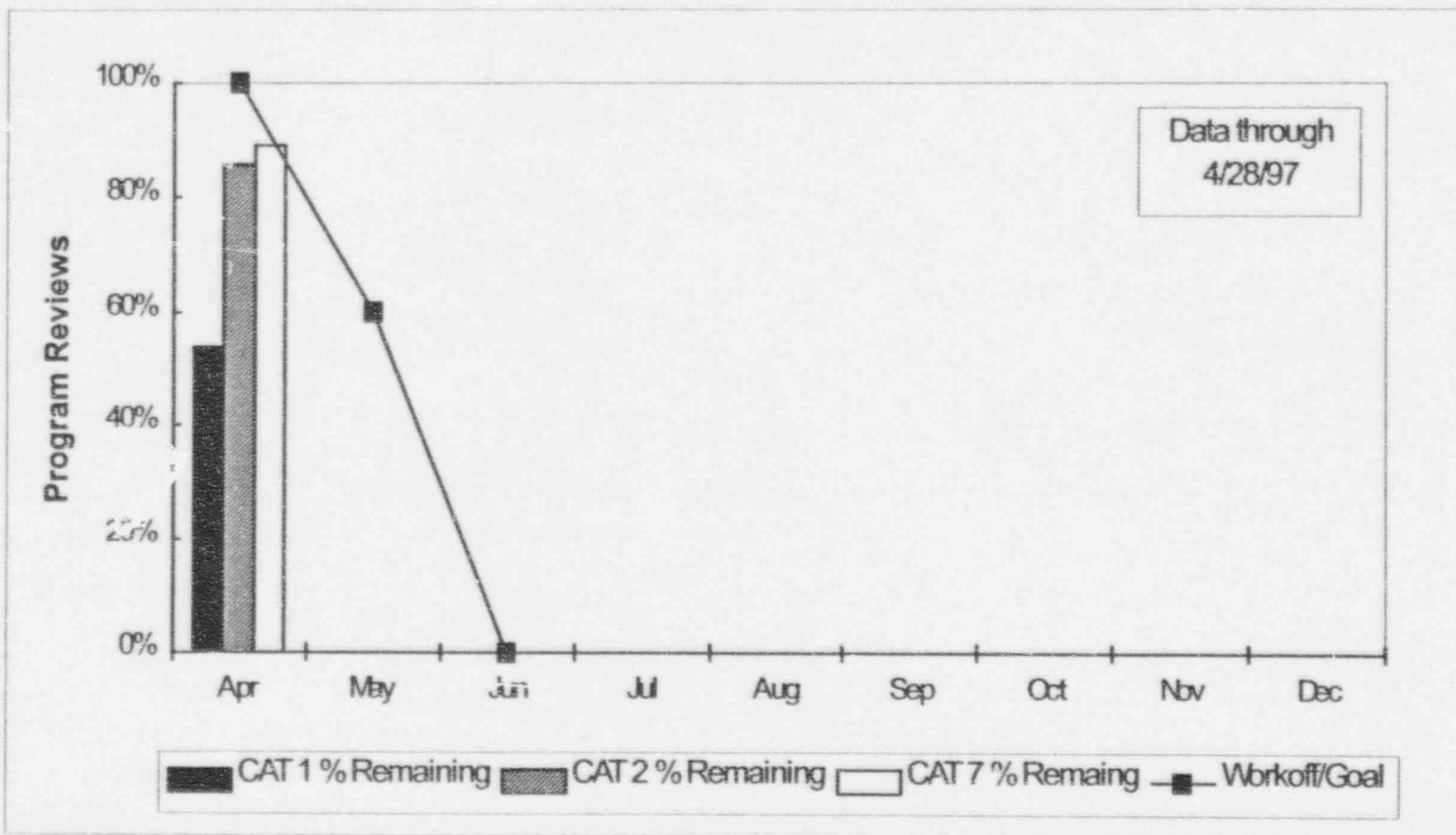
## Unit 2 - AWOs Required for Restart



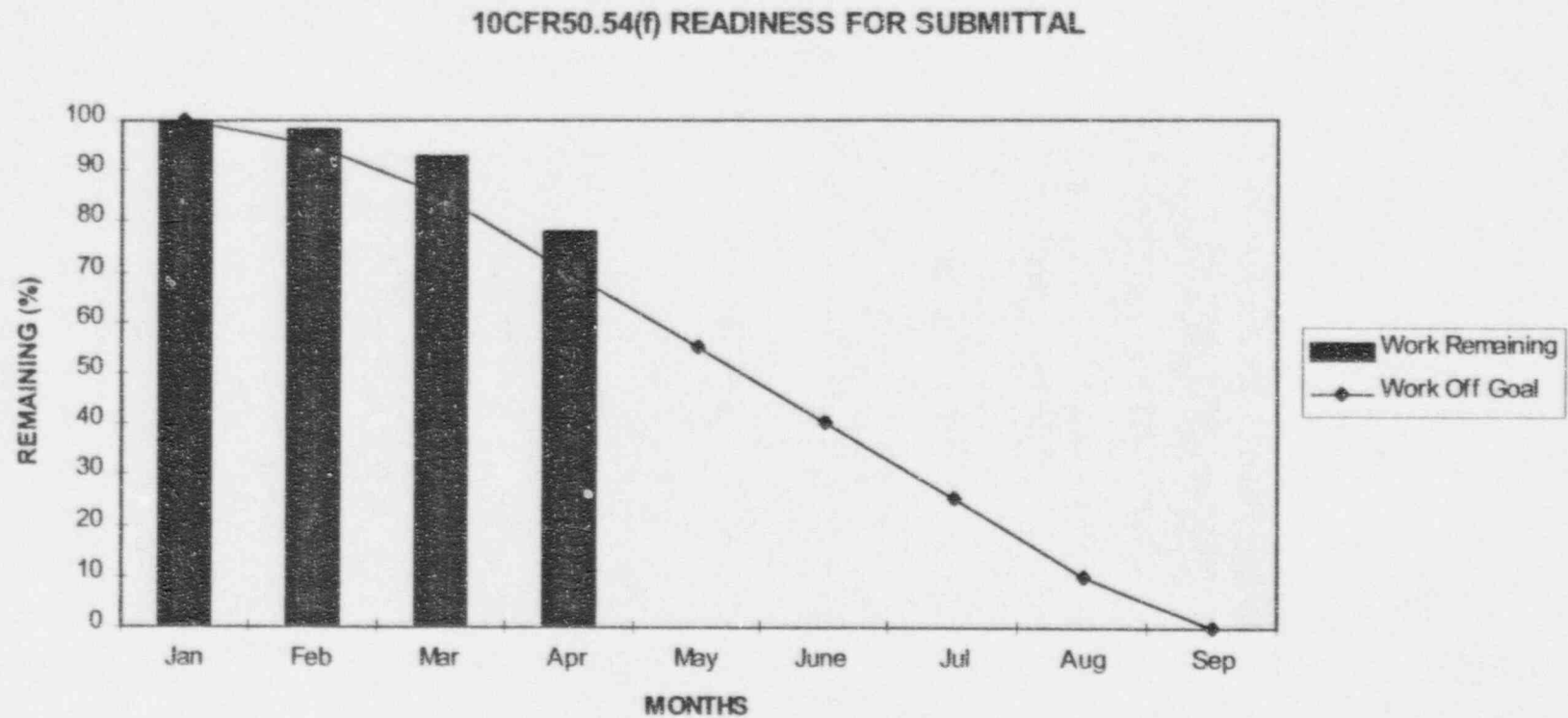
## Unit 2 - Significant Items List



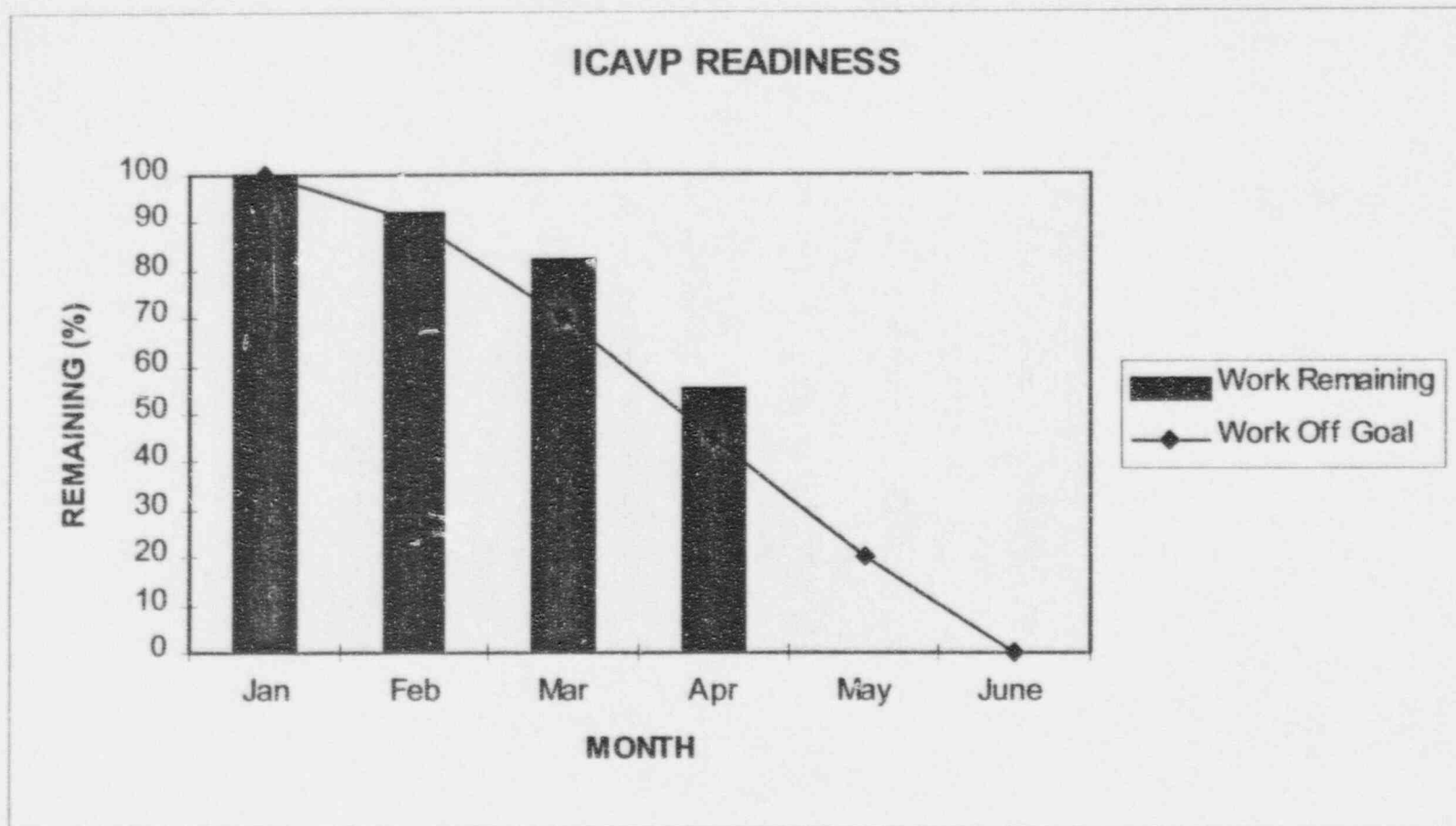
# MP2 - Configuration Management Plan - Program Assessments



# MP2 - 10CFR50.54(f) Readiness for Submittal



# MP2 - ICAVP Readiness





# **MP 3 Backup Slides**

# **Standards - Leadership Development**

- ♦ **Previous efforts will remain the foundation**
  - **Covey**
  - **Team Skills**
  - **Northfield Mountain**
- ♦ **Will utilize input from MP1 and 2 programs to develop ongoing program**

# **Standards - Corrective Action**

- ♦ **Program in place**
- ♦ **Progress being made**
- ♦ **Pls show C/A status**

# **Standards - Self Assessment**

- ♦ Program in place
- ♦ Schedule is being met
- ♦ Value being added
  - Maintenance Rule
  - RP4, Corrective Action Program

## Status of Millstone Unit 2 Open Items Resulting from the 96-201 Inspection

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modification/Potential Modification
EEI 96-201-03	Failure to adequately evaluate the installation of electrical jumpers for a malfunction of a different type as required by 10 CFR 50.59	Submitted	<ul style="list-style-type: none"> <li>* Additional training of personnel performing 10CFR50.59 reviews has been implemented.</li> <li>* The Programmatic aspects correcting this issue was addressed in the 50.59 procedure changes</li> </ul>	23	No
EEI 96-201-09	Adequate design control measures not established for verifying the accuracy of the DBDPs. Discrepancies noted but not dispositioned.	Submitted	<ul style="list-style-type: none"> <li>* Configuration Management Plan is being implemented. Engineering Programs Department formed to follow administrative requirements. CMP has replaced DBDP's with DB's and LB's. DBDP's are identified as "Reference Only"</li> <li>* Design Change Manual has been revised to prevent recurrence.</li> <li>* This issue deals with a programmatic concern which is being addressed by the CMP and DCM changes.</li> </ul>	27	No
EEI 96-201-11	Failure to adequately control the installation of a temporary modification to the RBCCW Surge Tank. A number of deficiencies in the design documentation and implementation were noted.	Submitted	<ul style="list-style-type: none"> <li>* Improvements in management expectations as well as an overall effort to raise standards has been implemented through the ORP</li> <li>* A new rigging manual has been approved. Training for the manual has been completed</li> <li>* Design documentation deficiencies have been corrected and engineering training completed.</li> <li>* This issue concerns programmatic deficiencies which have been addressed by the above actions.</li> </ul>	28	No

# Status of Millstone Unit 2 Open Items Resulting from the 96-201 Inspection

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modification/Potential Modification
EEI 96-201-12	Failure to establish and maintain measures and design controls to maintain design basis for the WR NI Channels	8/15/97	<ul style="list-style-type: none"> <li>* A Design Change Record is currently being prepared to address the single failure and separation concerns. The DCR and DCN are currently in review. The DCR is scheduled to be presented to PORC on 5/14/97 with the installation scheduled for 7/25/97</li> <li>* The closure package will be a partial package since the modifications will not be fully tested by 8/15/97.</li> <li>* This design issue covers both the programmatic concerns from original construction as well the physical modifications needed to address the potential single failure concerns.</li> </ul>	29	Yes Note 1
EEI 96-201-20	Failure to promptly resolve deficiencies in the analysis and design of MCC enclosures	8/15/97	<ul style="list-style-type: none"> <li>* Door seal restoration will be completed after completion of engineering design. There is a parallel effort to determine best course of action</li> <li>1) A specification has been prepared for new MCC Enclosure coolers and 2) Engineering is evaluating modification to prevent the harsh environment versus protecting individual components within the harsh environment.</li> <li>* The Corrective Actions Department has been formed for better tracking accountability of commitments</li> <li>* A HELB study of the Auxiliary building environment will be completed prior to startup</li> <li>* The CAD improvements will address the programmatic concerns. The physical issues will be addressed by referenced modifications.</li> </ul>	19	Yes Note 2



### Status of Millstone Unit 2 Open Items Resulting from the 96-201 Inspection

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modification/Potential Modification
EEI 96-201-25	Failure to effectively track and implement corrective actions concerning "dual function" isolation valves	5/16/97	<ul style="list-style-type: none"> <li>* The 23 dual function valves were tested.</li> <li>* The Corrective Actions department has been fully implemented</li> <li>* The Corrective Actions department is working to effectively track open commitments for better accountability</li> <li>* The CAD improvements will address the programmatic issues.</li> </ul>	30	No
EEI 96-201-28	Failure to address the SBO issues identified in the VECTRA assessment	7/18/97	<ul style="list-style-type: none"> <li>* An SBO coordinator has been established</li> <li>* Assignments have been made to track open items from the VECTRA assessment</li> <li>* CMP will be performing an assessment of the SBO issues</li> <li>* Programmatic improvements associated with tracking of commitments will be addressed by the CAD</li> </ul>	31	No
EEI 96-201-29	Failure to take appropriate corrective actions for audit issues involving trending and prioritization of NCRs	Submitted	<ul style="list-style-type: none"> <li>* The Corrective Action has developed trending tools to track and evaluate NCR issues. Additionally, the CR process will be used to ensure timely NCR closeout</li> <li>* This issue dealt with a programmatic deficiency will be corrected by the CAD.</li> </ul>	32	No
EEI 96-201-30	Failure to implement timely corrective action for identified significant conditions adverse to quality	Submitted	<ul style="list-style-type: none"> <li>* The closure of backlog ACRs is being addressed through the phased system approach to the schedule. A significant effort is underway to maintain current CR closure in a timely fashion to prevent further backlog.</li> <li>* The Corrective Actions department has been fully implemented</li> <li>* The Corrective Actions department is working to effectively track open commitments for better accountability</li> <li>* CAD and the revision to RP4 will address programmatic concerns</li> </ul>	5	No

# Status of Millstone Unit 2 Open Items Resulting from the 96-201 Inspection

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modification/Potential Modification
EEI 96-201-31	Inadequate design verification for RBCCW Surge Tank seismic restraint modification	5/16/97	<ul style="list-style-type: none"> <li>* Training of Design Engineering personnel has been formally developed and being implemented.</li> <li>* Changes to the Design Change Manual have been made and training completed.</li> <li>* The DCM and training improvements will correct this programmatic problem</li> </ul>	28	No
EEI 96-201-36	Inadequate corrective actions concerning a seismic design deficiency for a Vital Switchgear room cooler	7/3/97	<ul style="list-style-type: none"> <li>* The Design Change Manual has been revised and personnel training is in progress</li> <li>* The Engineering Report for the design basis for leakage from seismic class 2 piping is due to be completed by 6/16/97</li> <li>* Similar to the previous issues, the DCM improvements will correct the programmatic concern.</li> </ul>	33	No
EEI 96-201-41	Failure to maintain the plant configuration within the Licensing Bases for the CTMT Gaseous and Particulate RMs, H2 Monitoring system and PASS	8/8/97	<ul style="list-style-type: none"> <li>* The system power supplies will be modified to meet single failure criteria. Additionally, modifications to the H2 monitors and CTMT Radmonitors will be made. The Design Basis has been established. A preliminary Engineering Report has been issued to form the basis of the DCR.</li> <li>* The Design Change Manual has been revised and training is in progress.</li> <li>* The DCM will address programmatic issues.</li> </ul>	23	Yes Note 3
EEI 96-201-42	Failure to adequately control standards resulted in inappropriate downgrade of QA Cat 1 equipment to a Non-QA status.	5/30/97	<ul style="list-style-type: none"> <li>* A change to the MEPL Specification has been made and has been implemented.</li> <li>* Actions to prevent inappropriate downgrades have been made implemented in the form of required reviews for downgrades.</li> <li>* Additional resources have been made available for programmatic MEPL issues</li> <li>* Virginia Power MEPL personnel have provided an assist visit</li> <li>* This issue was corrected procedurally.</li> </ul>	18	No

# Status of Millstone Unit 2 Open Items , resulting from the 96-201 Inspection

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modification/ Potential Modification
EEI 96-201-43	Failure to prevent the use of potentially non-conforming material in safety related applications due to lack of adequate MEPL dispositions	5/30/97	<ul style="list-style-type: none"> <li>* Resolution of the final outstanding issue associated with 2-CN-241, CST to Hotwell makeup valve, is scheduled to be completed by 5/16/96</li> <li>* This was also a programmatic issue which is being administratively controlled.</li> </ul>	18	No

## NOTES:

1. The annunciator wiring will be modified and the circuit voltage changed from 125Vdc to 24Vdc to minimize single failure concerns.
2. Modifications will be made to the MCC Enclosures in the form of seals and air conditioning units or modifications will be made to systems and components which create the harsh environment. If the harsh environment concerns are eliminated, MCC Enclosures will not be required.
3. Modifications are expected to eliminate the susceptibility of single failure for the CTMT isolation valve power supplies as well as preliminary review that the hydrogen monitors and the CTMT Radmonitors will require replacement. There will be some minor modifications to the PASS system.

**Status of Millstone Unit 3 Open Items Resulting From the 96-201 NRC Inspection**

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modifications/ Potential Modifications
EEI 96-201-01	Six examples where the MP3 FSAR was not maintained up to date or did not reflect actual plant configuration and operating practices.	8/5/97	Setpoint change modification, FSAR change, FSAR change procedure revised	2	Yes, setpoint
EEI 96-201-02	The safety evaluation for Service Water Bypass Jumper 3-90-20 was inadequate because it did not address substitution of a manual action for an automatic feature and the defeat of an automatic actuation.	8/9/97	Pumps started and run at time of discovery, revision of OPS procedure for alarm response, BJ removed	78	No
EEI 96-201-04	Procedures were changed with out a PTSCR to permit closure of Turbine-Driven Auxiliary Feedwater discharge valves whenever the Motor-Driven Auxiliary Feedwater pumps were used for steam generator water control.	8/5/97	Modification to the AFW - 36 valves, 50.59 procedure revision and training, and PTSCR submittal	11	Yes

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modifications/ Potential Modifications
EEI 96-201-05	The TDAFW isolation valves were closed during low power operations or when MDAFW pumps were in service. Failure to ensure that at least three independent AFW pumps and associated flow were operable with the reactor in either Mode 1, 2, or 3 is a violation of Tech Specs.	8/5/97	PTSCR submittal, procedure revised to no longer isolate TDAFW discharge flow paths, 50.59 revision and training.	11	Yes
EEI 96-201-06	The FSAR description of automatic start feature for the Turbine-Driven Auxiliary Feedwater Pump was corrected without a Safety Evaluation, to reflect the as-built configuration, and to be consistent with other sections of the FSAR.	8/5/97	Safety evaluation done on as-built starting feature of TDAFW, 50.59 and FSAR Change Request improvements and training in process.	78	No
EEI 96-201-07	The Emergency Diesel Generator (EDG) room low temperature alarm setpoint was changed without performing a safety evaluation	8/5/97	Safety Evaluation to be completed, 50.59 procedure revision and training, DCM to control setpoints	78	Yes, setpoint



Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modifications/ Potential Modifications
EEI 96-201-08	The description of the SBO Diesel Generator system component design, testing and maintenance contained in FSAR did not accurately reflect actual plant configuration or current maintenance and surveillance practices.	8/5/97	FSAR changes, SBO procedure revision, 50.59 procedure revision and training, FSAR training	78	Yes, minor mod.
EEI 96-201-09	Adequate design control measures were not established for verifying and checking the accuracy of the information contained in the Design Basis Documentation Packages (DBDPs).	8/5/97	Resolve and incorporate DBDP discrepancies prior to startup, revise design control process	79	No
EEI 96-201-10	Supporting technical evaluations listed in Proposed Technical Specification Change Request (PTSCR) , although available, were not retained within QA records system.	8/6/97	Requirements for technical evaluations established, review of previously submitted PTSCRs, DCM revisions	82	No



Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modifications/ Potential Modifications
EEI 96-201-13	Prompt action was not taken to address unusable CST volume after determination that the Tech Specs required an increased Demineralized Water Storage Tank/ Condensate Storage Tank (DWST/CST) minimum by 30,000 gallons.	6/19/97	Technical Requirements Manual was revised, Tech Spec Change submittal	37	No
EEI 96-201-15	Design controls were not established to verify adequacy of angle-type SOVs to properly remain isolated against containment design bases accident pressures by suitable qualification testing under the most adverse design condition	8/12/97	AFW valve modification for containment design pressure, review of other valves	18	Yes
EEI 96-201-18	Controls were not established to coordinate comprehensive revision of procedures necessary to implement all aspects Tech Spec Amendment 100, including reconciliation of the vendor recommended pre-lubrication interval for AFW pumps.	7/22/97	Lubrication interval incorporated into procedures, training in Technical Specification changes and License Amendments	18	No

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modifications/ Potential Modifications
EEI 96-201-19	Failure to establish instructions or procedures to ensure that Rosemount transmitters would be installed and subsequently inspected, consistent with the vendor manuals.	5/16/97	Inspection of various manufacturer's transmitters, revision of I&C procedures and review of vendor technical manuals	10	No
EEI 96-201-21	Temporary, unsecured I-beams installed above three of four containment recirculation spray system (RSS) heat exchangers were not promptly identified and corrected	6/23/97	I-beam removed, work control procedure modified, improved corrective action program	37	No
EEI 96-201-22	Reactor Plant Closed Cooling Water system temperatures were not maintained below limits specified by procedure (and, in some cases, piping analysis limits) and no ACR was initiated to document the condition.	8/11/97	Modifications to increase allowable piping temperatures, support modifications, requirements to issue a CR for similar condition.	37	Yes (2)

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modifications/ Potential Modifications
EEI 96-201-23	A bypass jumper (BJ) was installed that changed the starting circuits for the SW supply to MCC/RCA air handling units. The tech eval for this BJ was inadequate and several opportunities were missed to identify the inadequacies.	7/22/97	Bypass Jumper (BJ) was removed, safety evaluation being performed on all remaining BJs, and efforts to reduce the number of BJs, installed	52	No
EEI 96-201-24	Damaged concrete on the service water booster pump pedestal was not promptly identified and corrected	5/16/97	Pedestal repaired, other pads inspected, sealant will be applied to pedestal	37	No
EEI 96-201-26	Non compliance with requirements to maintain appropriate clearances between scaffolding and safety-related equipment was not promptly identified and corrected.	7/23/97	Scaffolding was re-evaluated, post installation walkdowns now required	37	No
EEI 96-201-27	Protective relay setting criteria for safety related motors prescribed in the FSAR were inconsistent with the control setting sheets and criteria used in calculations	8/5/97	Overcurrent setpoint will be modified for Quench Spray Pump Motor, FSAR change, Specification revisions.	37	Yes

Reference Number	Item Description	Closure Package Due Date	Status	SIL Number	Modifications/ Potential Modifications
EEI 96-201-28	Failure to promptly correct station blackout diesel audit deficiencies	7/23/97	Evaluate communications and lighting during Station Blackout, heat tracing, and EDG Reliability Program	37	No
EEI 96-201-29	Nonconformance reports (NCRs) remain uncorrected with no work assignments against them or trend analysis. Appropriate corrective actions have not been taken despite several audits identifying NCR programmatic issues	8/6/97	Condition Reports written for all NCRs, open NCRs to be evaluated prior to startup, procedure revisions	37	No
EEI 96-201-32	The ASME code hydrostatic test required because of a change in design pressure of High Pressure Safety Injection piping was deferred without obtaining authorization from the Director, NRR.	7/22/97	ASME Code Case approved for use at Millstone, hydro at correct pressure, revision of the ISI program manual	81	No
EEI 96-201-33	The hydrostatic test pressure utilized to test thermal relief valves was 110% of the valve setting instead of 125% as required by Section XI of the ASME Code	7/22/97	ASME Code Case approved for use at Millstone, hydro at correct pressure, revision of the ISI program manual	58	No