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NRR

March 28, 1997

Mr. Bruce D. Kenyon  
President and Chief Executive Officer  
Northeast Nuclear Energy Company  
P. O. Box 128  
Waterford, Connecticut 06385-0128

SUBJECT: MEETING SUMMARY

Dear Mr. Kenyon:

This letter documents the meeting that was held between the Northeast Nuclear Energy Company and the Nuclear Regulatory Commission on March 18, 1997 to discuss the status of your recovery and restart efforts for Millstone Units 1, 2 and 3. We found the meeting to be informative and useful for the staff and managers to gain first hand knowledge of your plans and actions. At the meeting, you announced that, because of resource constraints for the Independent Corrective Action Verification Process (ICAVP), parallel efforts to complete the ICAVP would not be employed. The change in strategy will impact the completion of the ICAVP efforts for Units 1 and 2; however, the extent of the schedular delays will not be fully understood for approximately 2-3 weeks.

For the next meeting we discussed proposed agenda items which included: 1) NNECO's oversight program to include the NSAB; 2) the status of your actions on NRC Inspection Report 96-201 enforcement items; and 3) Performance Indicators.

We will contact you in the future to schedule further meetings of this type. A copy of the your meeting slides is attached and will be placed in the Public Document Room.

Sincerely,

ORIGINAL SIGNED BY: J. Durr for:

Wayne D. Lanning  
Deputy Director, Inspections  
SPO, NRR

Enclosure: NNECO Meeting Slides

Docket Nos. 50-245; 50-336; 50-423

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P PDR

cc w/encl:

N. S. Carns, Senior Vice President and Chief Nuclear Officer  
L. M. Cuoco, Esquire  
J. R. Egan, Esquire  
V. Juliano, Waterford Library  
Department of Public Utility Control  
S. B. Comley, We The People  
State of Connecticut SLO Designee  
Citizens Awareness Network (CAN)  
R. Bassilakis, CAN  
J. M. Block, Attorney, CAN  
S. P. Luxton, Citizens Regulatory Commission (CRC)  
Representative Terry Concannon  
E. Woollacott, Co-Chairman, NEAC

cc w/o encl:

R. T. Laudenat, Acting Director - Regulatory Affairs for Millstone Station  
M. H. Brothers, Vice President - Millstone, Unit 3  
J. McElwain, Unit 1 Recovery Officer  
M. Bowling, Jr., Unit 2 Recovery Officer  
D. M. Goebel, Vice President, Nuclear Oversight  
J. K. Thayer, Recovery Officer, Nuclear Engineering and Support  
P. D. Hinnenkamp, Director, Unit Operations  
J. F. Smith, Manager, Operator Training  
F. C. Rothen, Vice President, Work Services  
J. Stanziewics, Training Recovery Manager  
R. Johannes, Director - Nuclear Training

Mr. Bruce D. Kenyon

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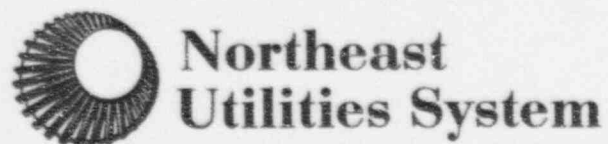
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# **Northeast Utilities Briefing for the NRC Restart Assessment Panel**

*Waterford Town Hall  
March 18, 1997*

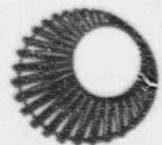


# Opening Remarks

**Bruce Kenyon**

***President & C.E.O.***

***Northeast Nuclear Energy Co.***

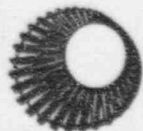


**Northeast  
Utilities System**

# Overview

**Buzz Carns**

***Senior Vice President &  
Chief Nuclear Officer - Millstone***



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# NU Presentation Agenda

- Unit 3 Restart Activities
- Unit 1 Restart Activities
- Unit 2 Restart Activities
- Employee Concerns
- Closing

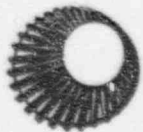
*Mike Brothers*

*Jack McElwain*

*Marty Bowling*

*Dave Goebel*

*Buzz Carns*



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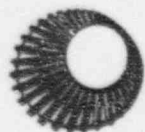
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*Restart Assessment  
Panel Meeting 3/18/97*

# **Unit 3 Restart Activities**

**Mike Brothers**

***Vice President - Millstone Unit 3***



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# Unit 3 ICAVP Readiness

- Sargent & Lundy is proposed contractor
- ICAVP Audit Plan submitted to NRC
- 18 systems required for start of ICAVP
- Unit 3 ready for ICAVP -- May 8, 1997
- Wave 1 Progress

– calculation reviews

833 / 845 completed

– FSAR annotations

2863 / 2909 completed

– UIR / OIRs

397 / 397 completed

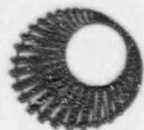


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*Restart Assessment  
Panel Meeting 3/18/97*

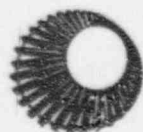
# **Submittal of Corrected FSAR**

- **Periodic addendums to the 1996 Annual Submittal**
- **1997 Annual Submittal -- 6/30/97**
- **Periodic addendums to the 1997 Submittal through 9/30/97**
- **Maintain future FSAR change requests available for NRC review**



# Unit 3 NRC Closure Packages

- 59 items scheduled, first 12 packages delivered on time
- Scheduling items from Inspection 96-201
- Expert panel, Management Quality Committee and licensing reviews

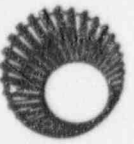
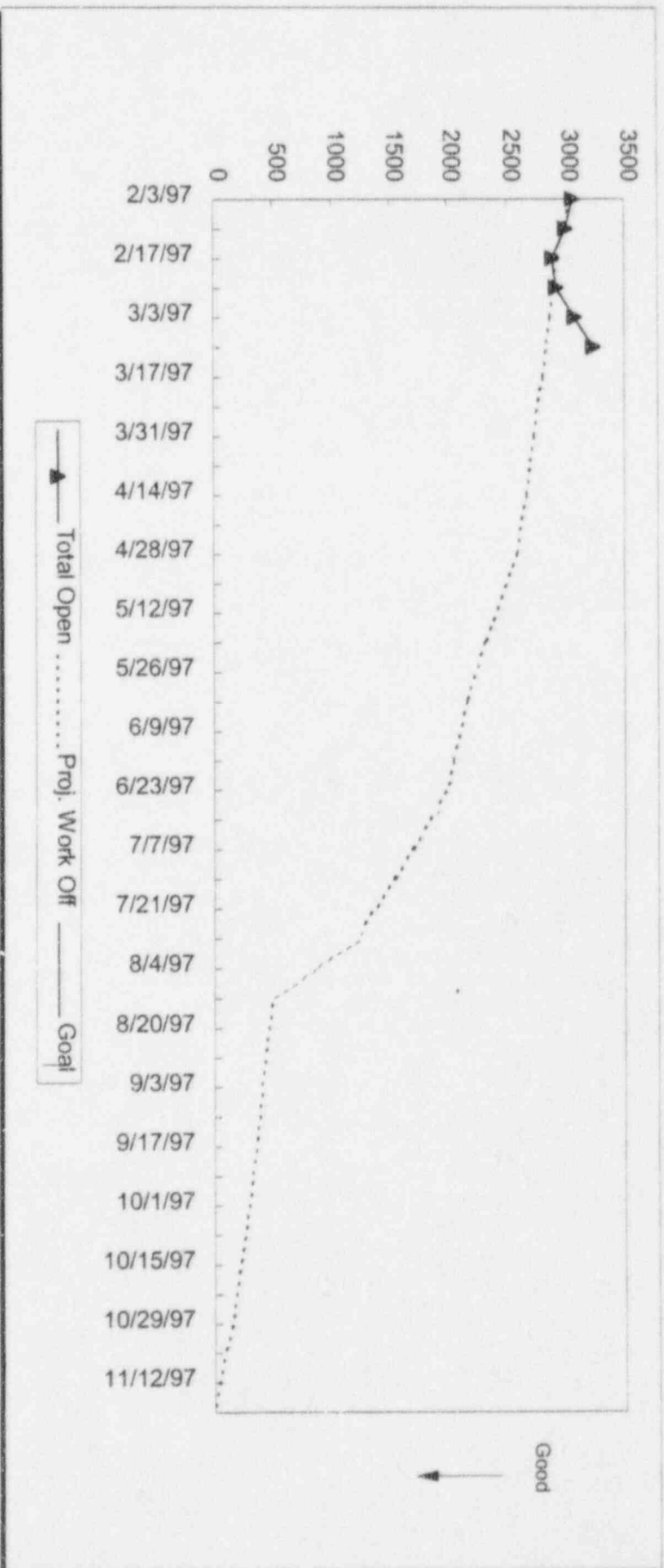


# Letdown Heat Exchanger Replacement

- Multi-stage Heat Exchanger - *leaking between lower head and tubesheet*
- Bolting susceptible to boric acid degradation
- Rig / move Heat Exchanger into Auxiliary Building -- March 11 - March 17
- Install Heat Exchanger -- March 25 - April 3

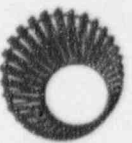
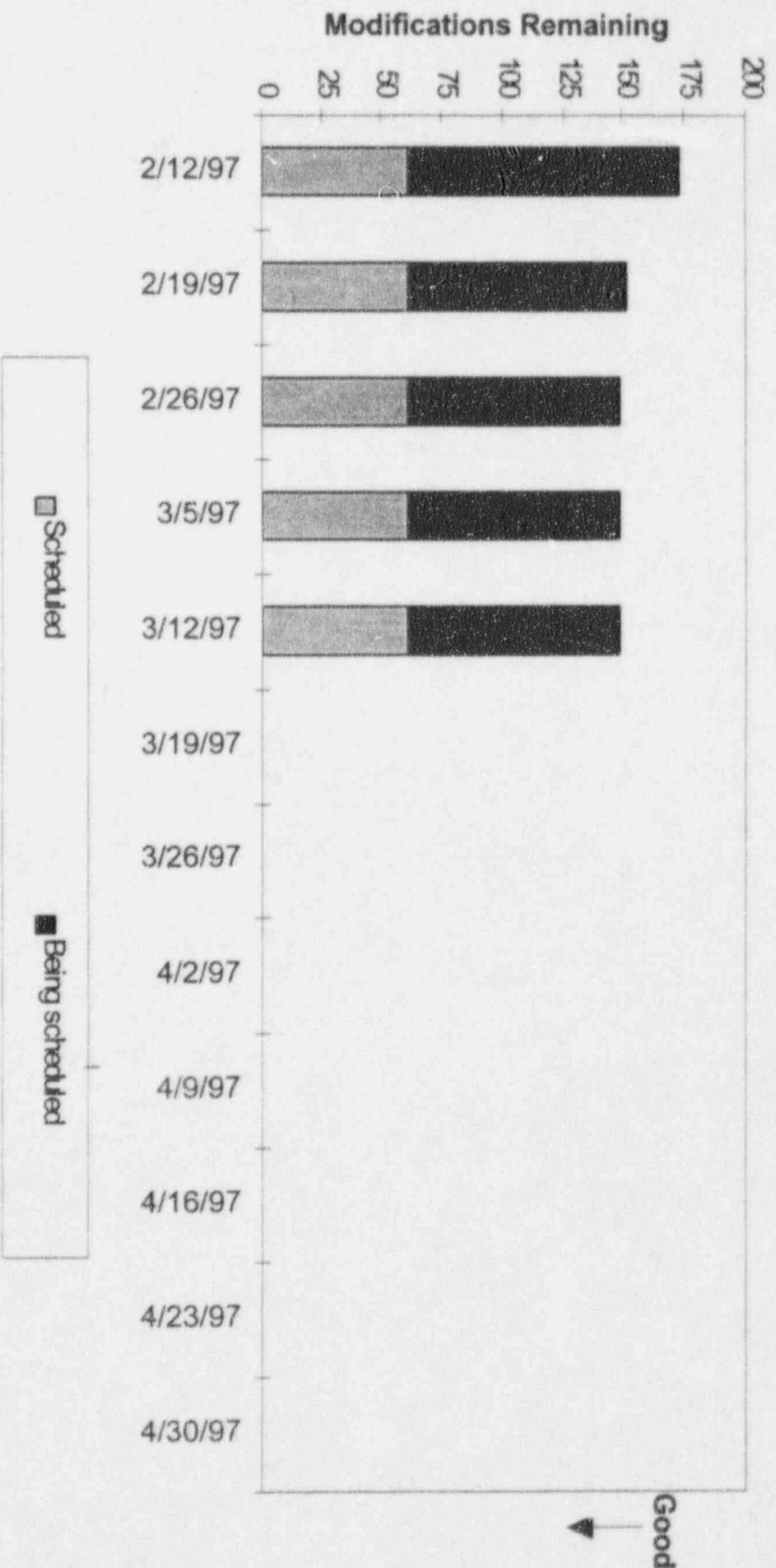


# AITTS Assignments Owed By MP3 Group



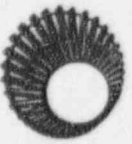
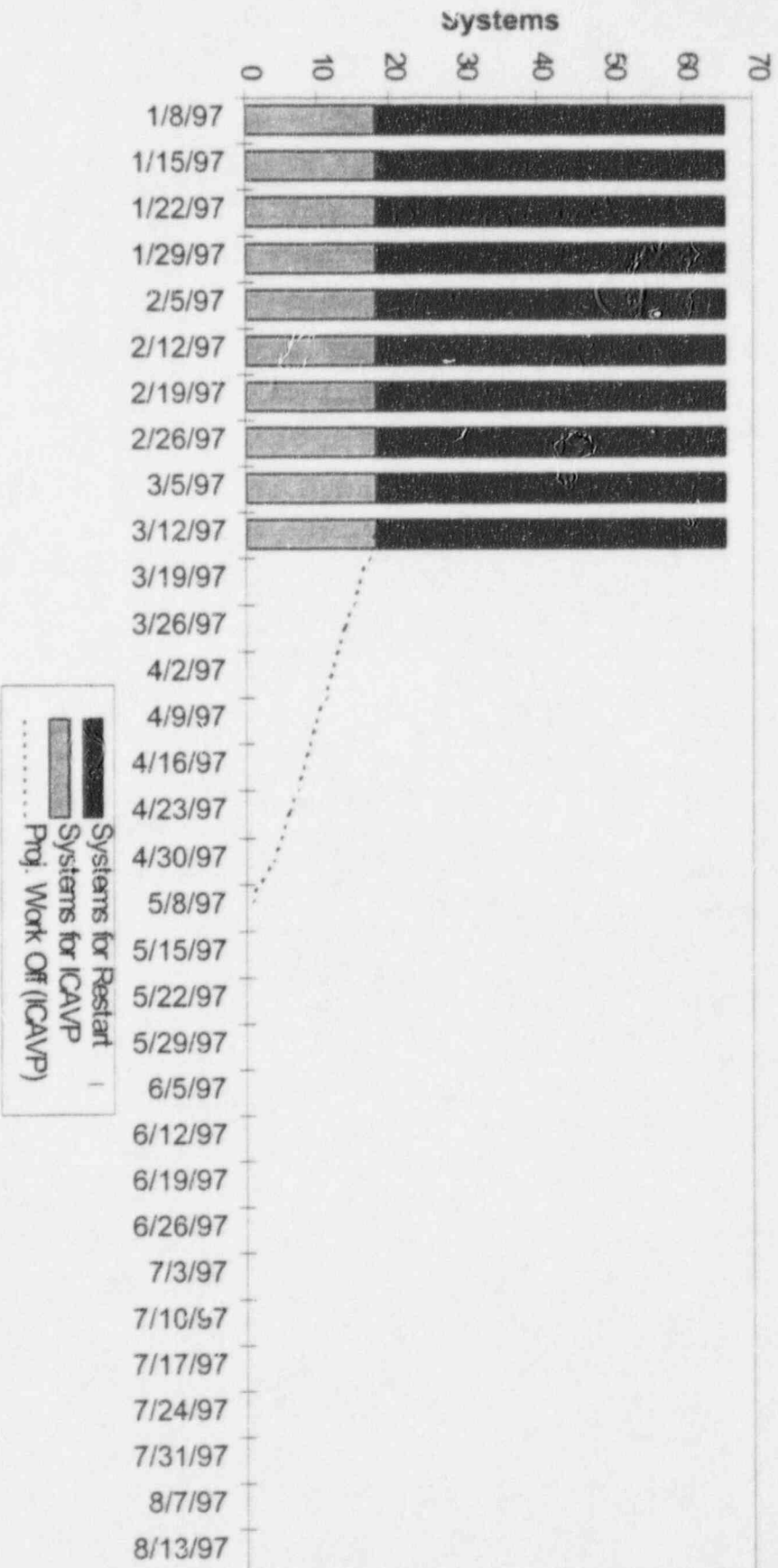
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# Restart Modifications Awaiting Implementation - Unit 3



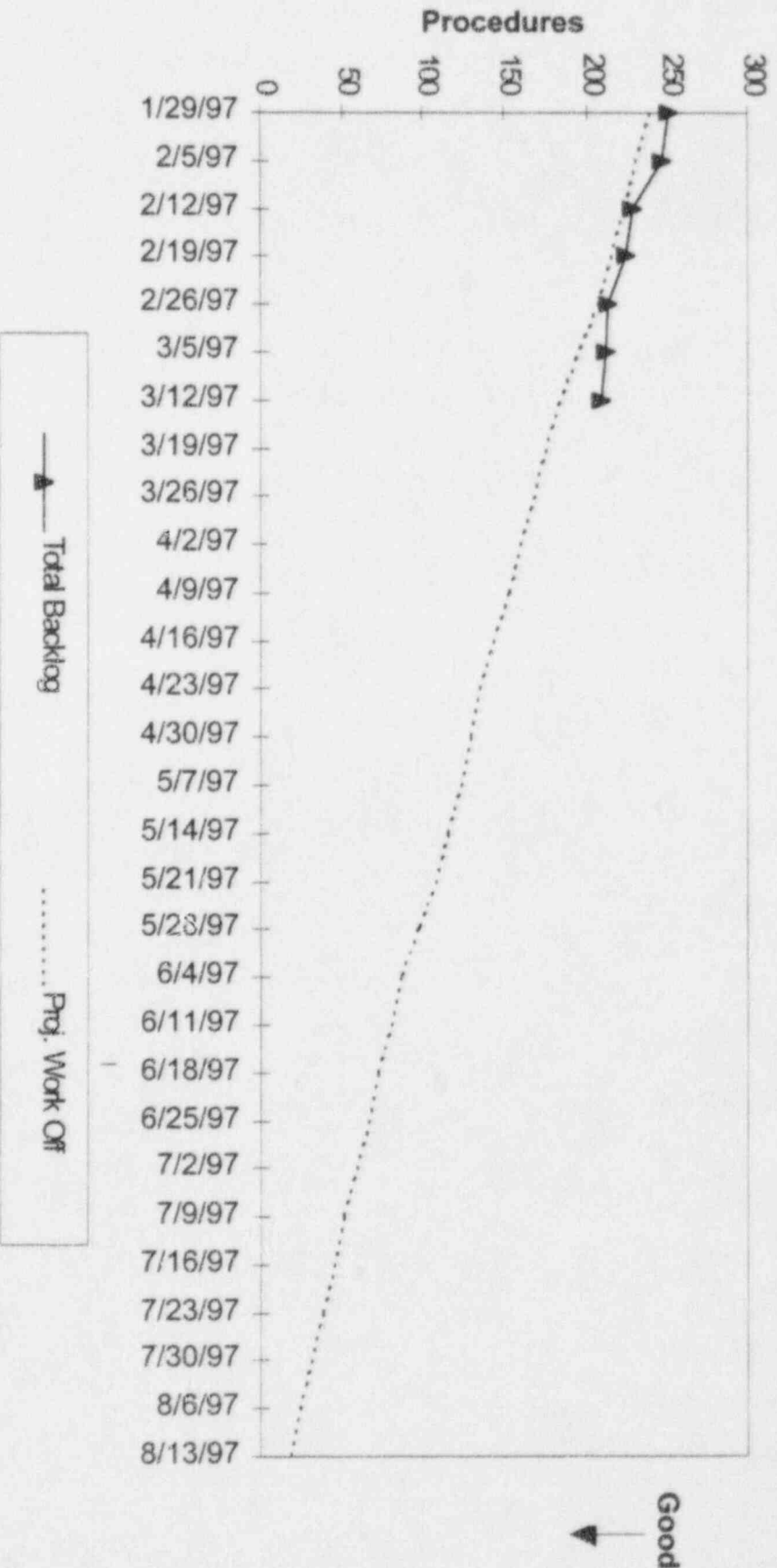
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# Remaining System Affirmations - Unit 3



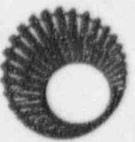
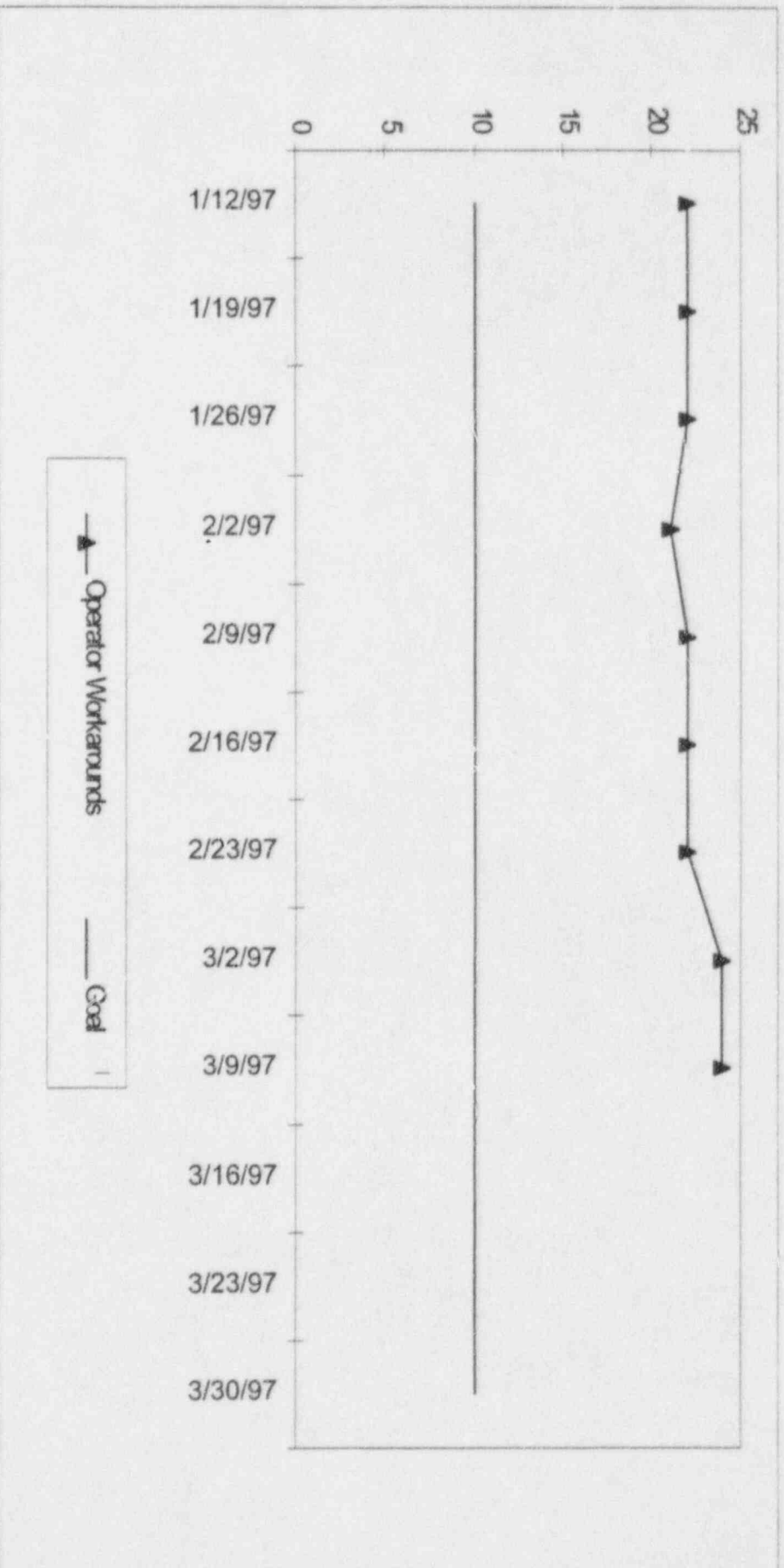
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# Procedure Revision Backlog Required for Startup - Unit 3



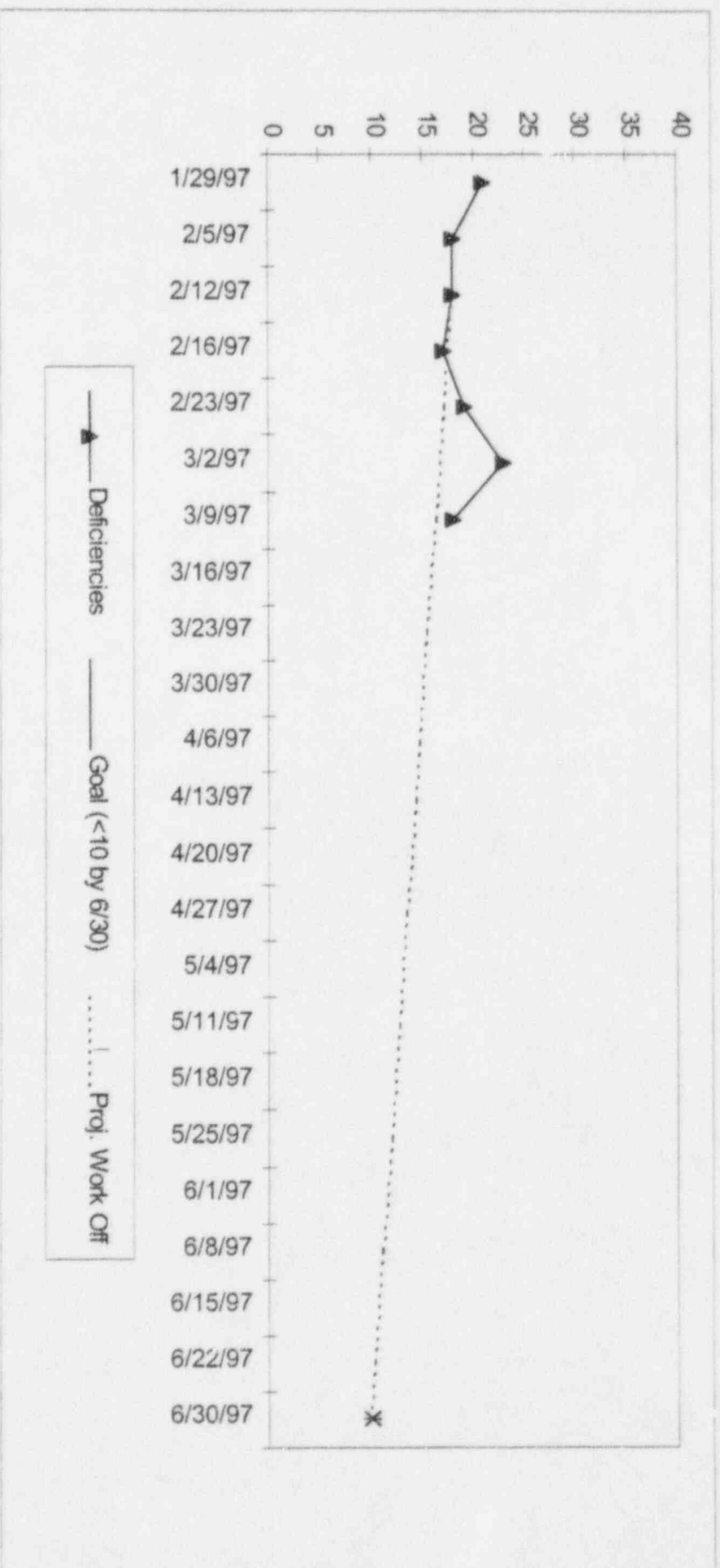
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# Operator Work Arounds - Unit 3



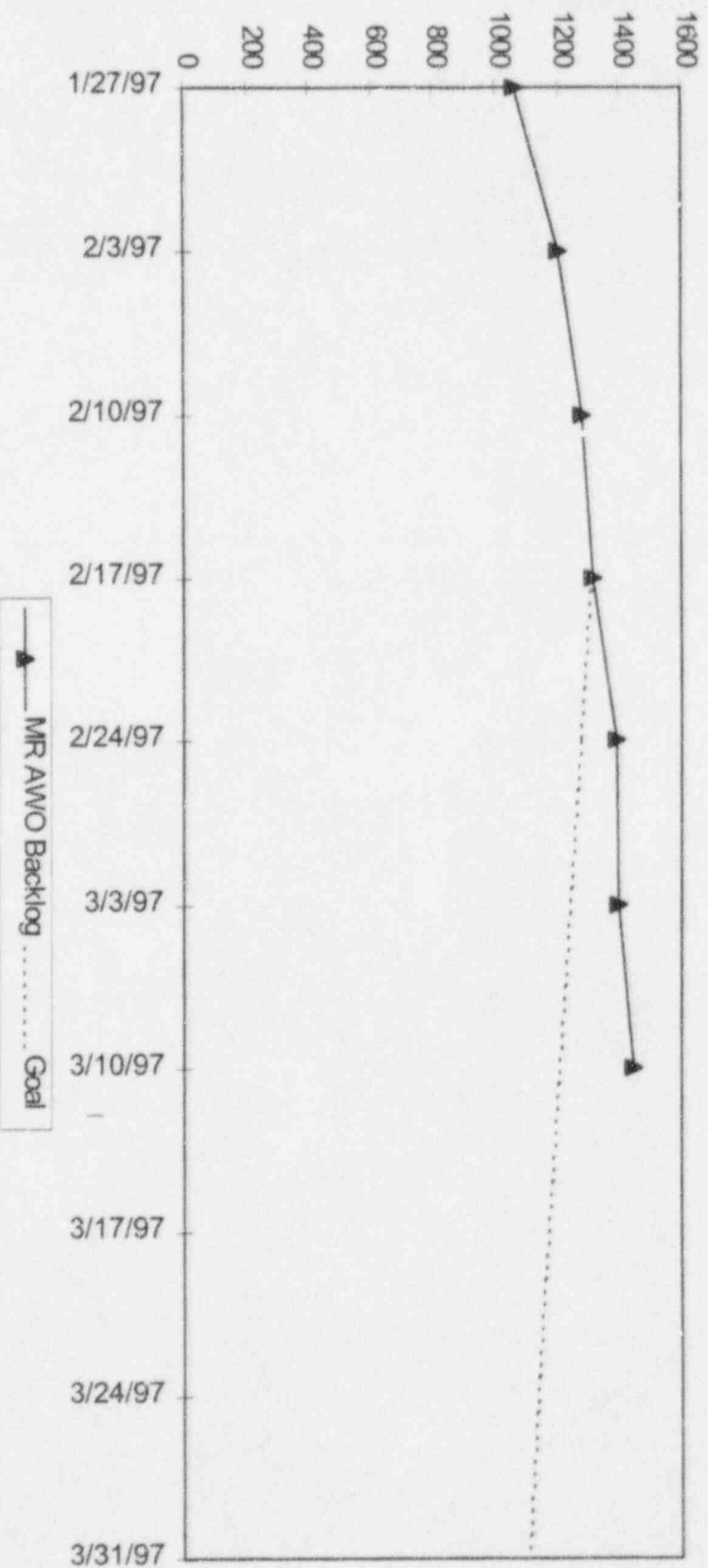
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# Control Room and Annunciator Deficiencies - Unit 3



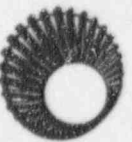
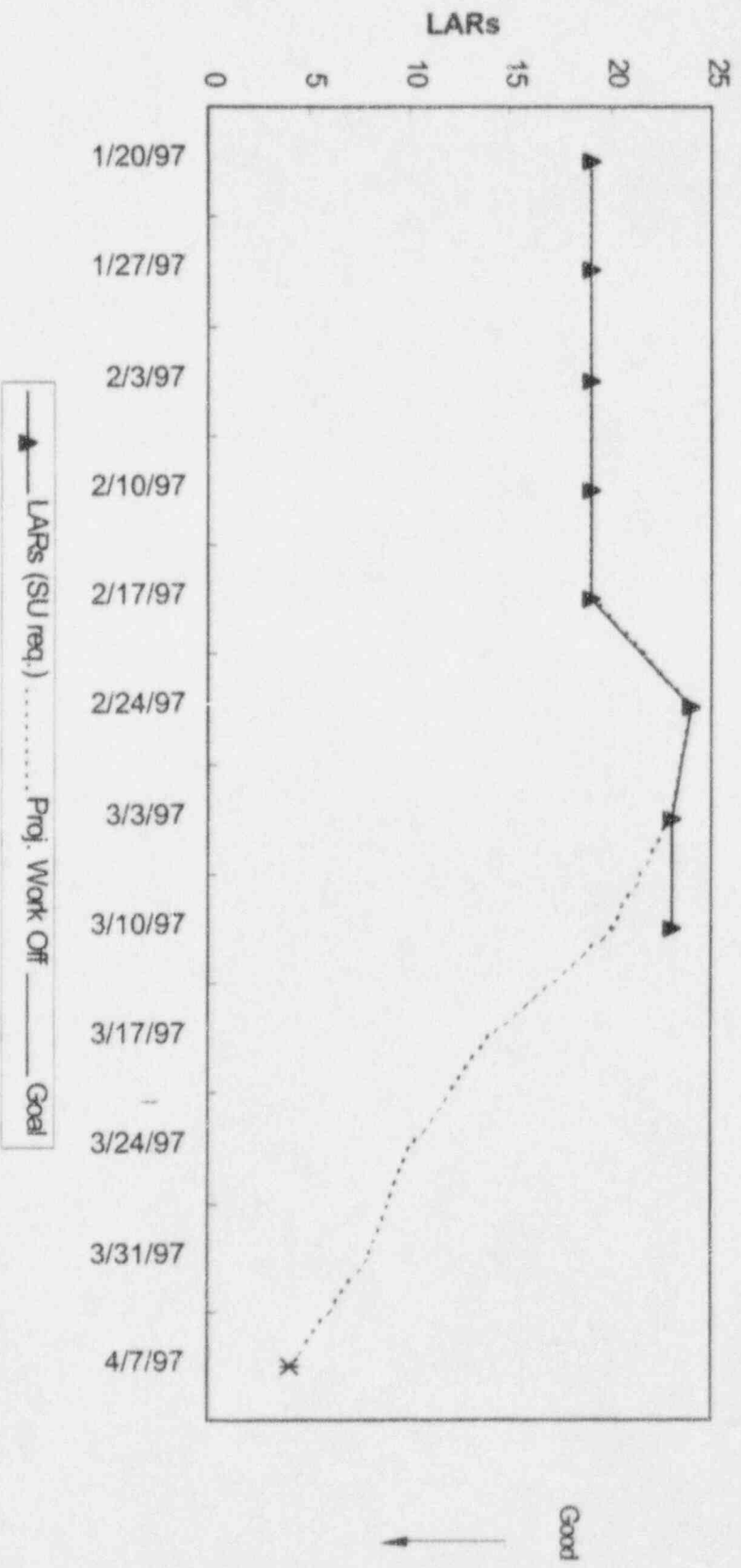
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# Maintenance Rule Group 1 and 2 AWO Backlog - Unit 3



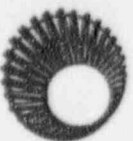
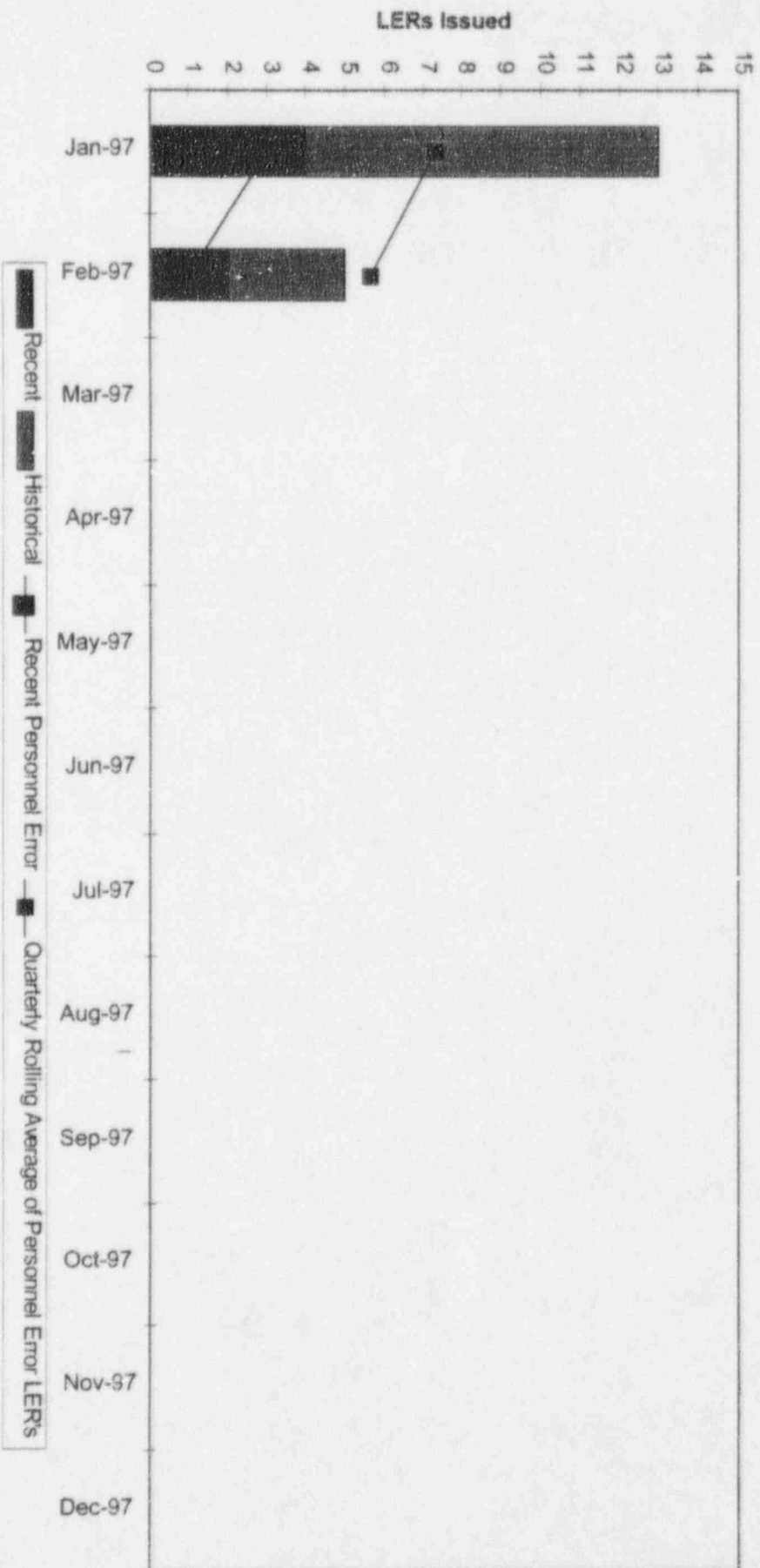
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# License Amendment Requests (LARs) - Unit 3



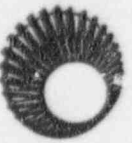
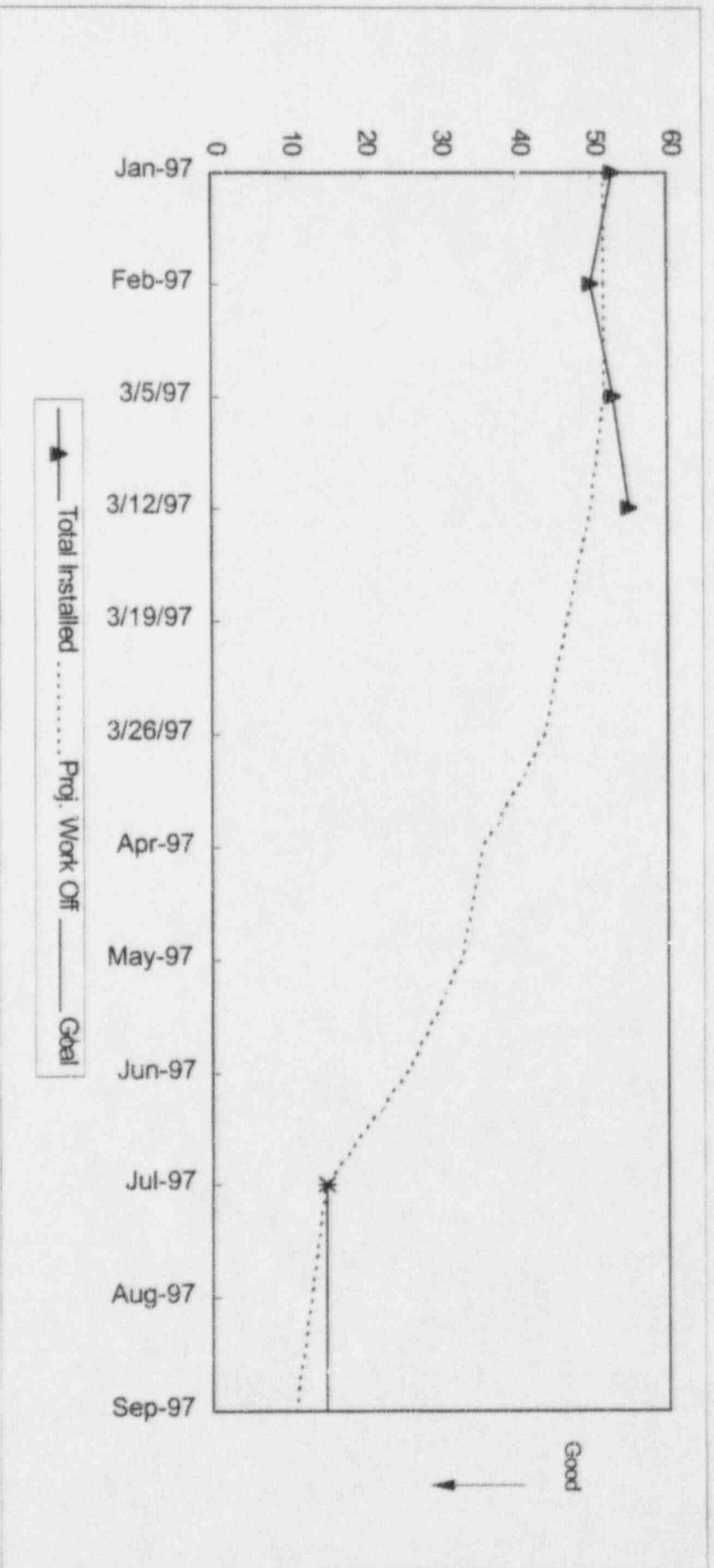
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# Plant Licensee Event Reports (LERs) - Unit 3



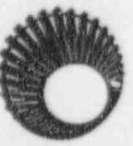
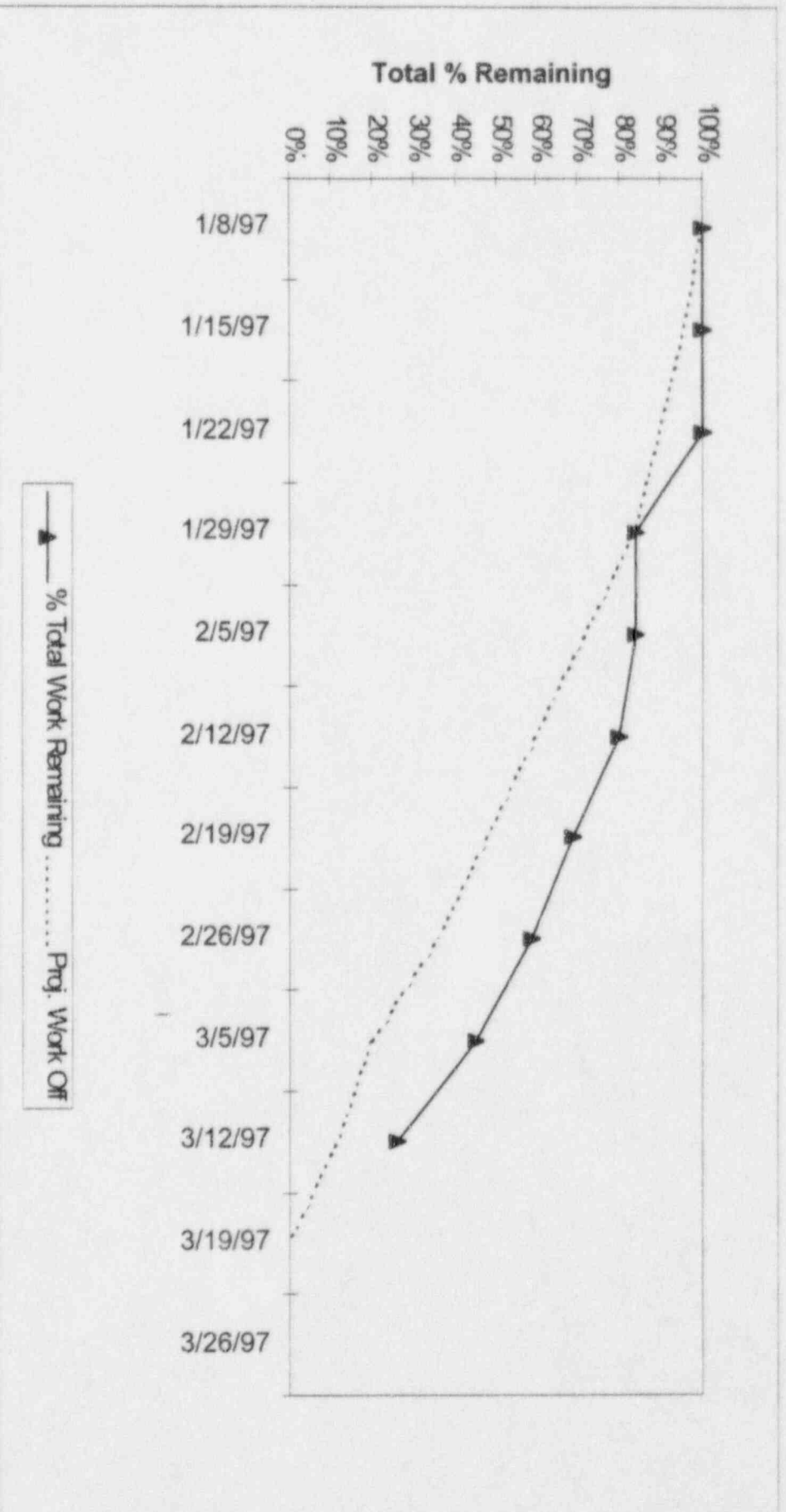
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# Temporary Modifications Total Installed - Unit 3



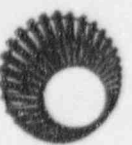
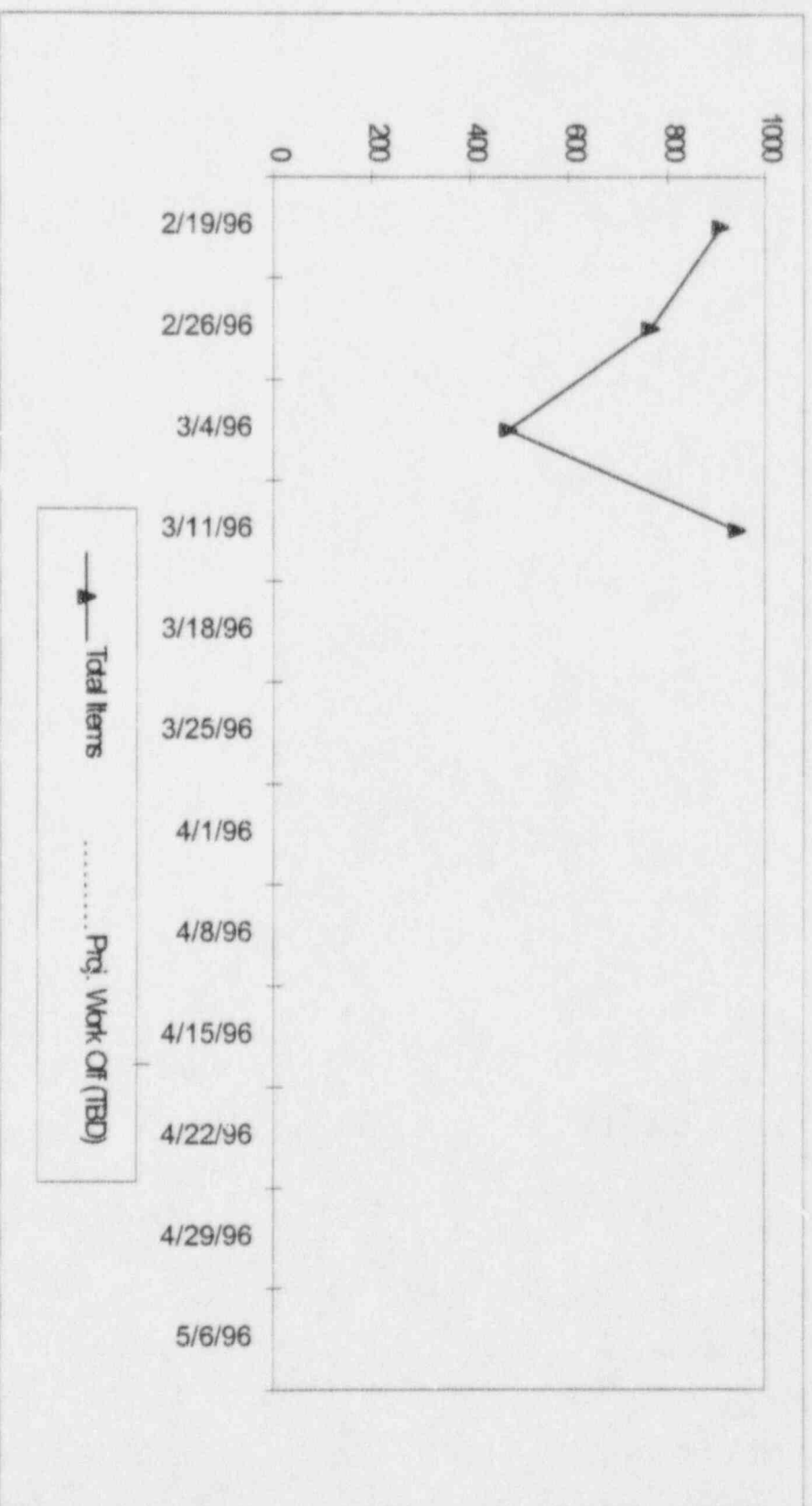
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# 50.54(f) Program Assessment Unit 3



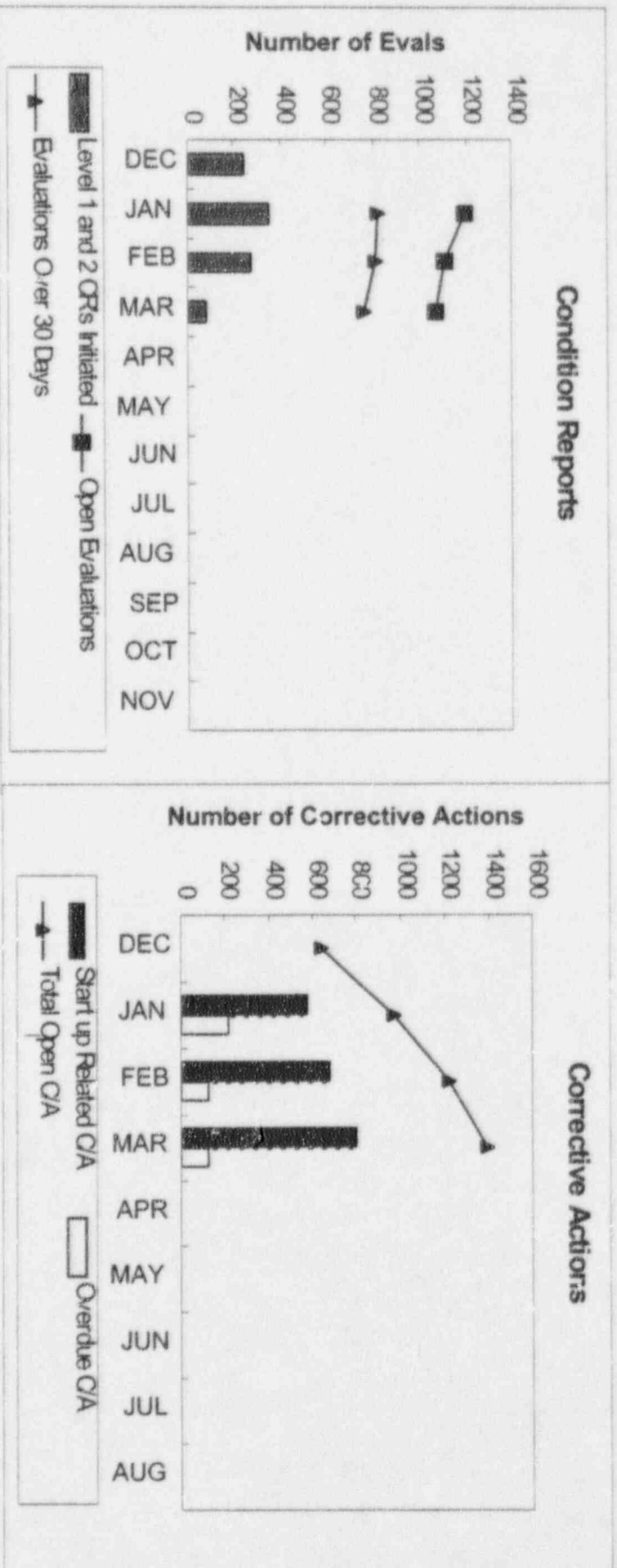
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# Configuration Management Plan Punchlist - Unit 3



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# Unit 3 Corrective Action Program Status



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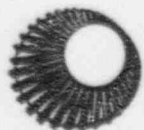
# Major Milestones For Unit 3 Restart

- 3/1\* -- Resolve Deficiencies for EDG Aux, RSS/QSS, AFW
- 3/6\* -- Resolve Deficiencies for SW, SBO, EDG
- 3/11\*-- Resolve Deficiencies for EDS - Electrical Distribution
- 3/12\*-- Commence Wave 1 SSA's (1/2 Maint. Rule Systems)
- 4/29 -- Complete Wave 1 SSA's (1/2 Maint. Rule Systems)

\* *completed as scheduled*

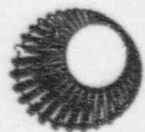
# Major Milestones For Unit 3 Restart

- 5/8 -- Commence Independent C/A Verification Program (ICAVP)
- 7/14 -- Complete Remaining SSA's
- 8/9 -- Complete Independent C/A Verification Program (ICAVP)
- 8/13 -- Submit 10 CFR 50.54(f) response to the NRC



# Unit 3 Challenges

- **AWO Backlog**
- **Modifications**
- **Generic Letter 89-10**



# **Unit 1 Restart Activities**

**Jack McElwain**  
***Recovery Officer***  
***Millstone Unit 1***

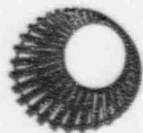
# Unit Readiness

- **22 Systems for Reload -- *includes 50% Maintenance Rule Systems***
- **Progress to Date**



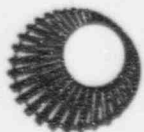
# **Corrective Action Program**

- **Revised Corrective Action Process**
  - **accountability**
  - **quality and timely evaluations**
  - **effective issue and commitment tracking**
  - **effective issue trending**

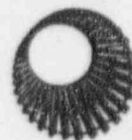
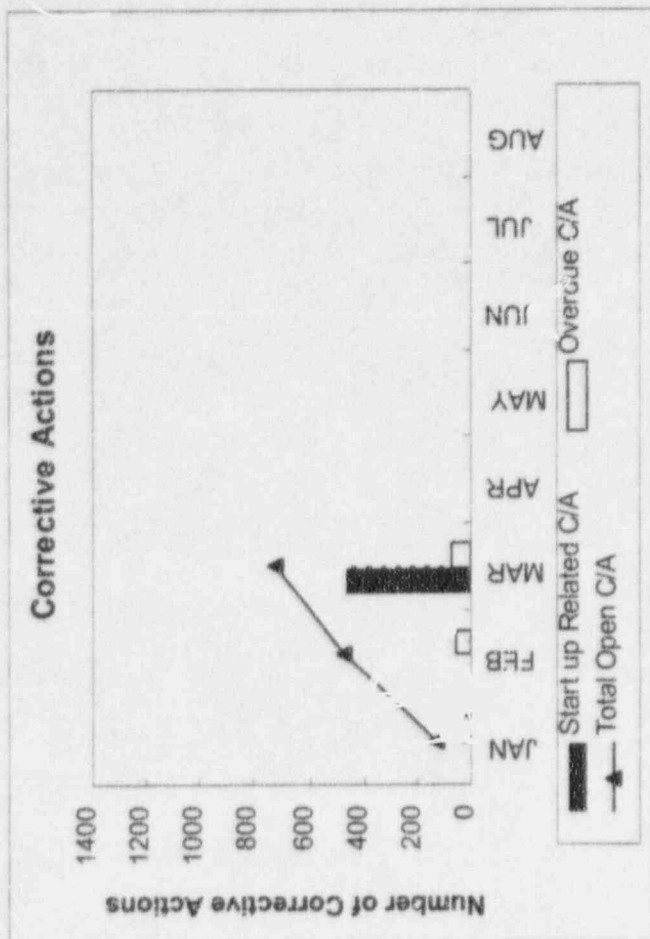
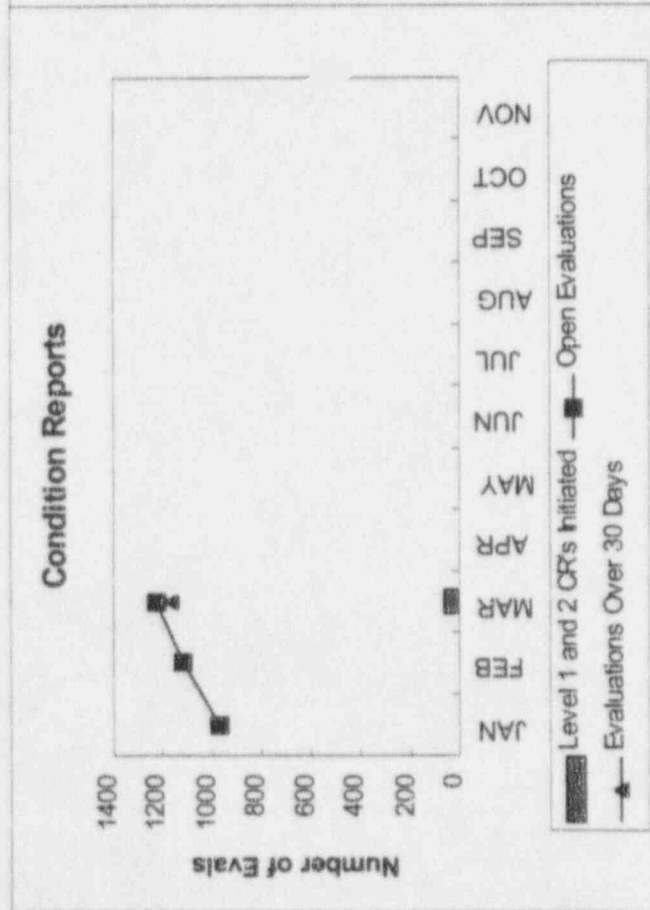


# **Corrective Action Program**

- **Training to ensure employee understanding of program**
- **Establishment of strong line management ownership and accountability**
- **Performance indicators to status program health**



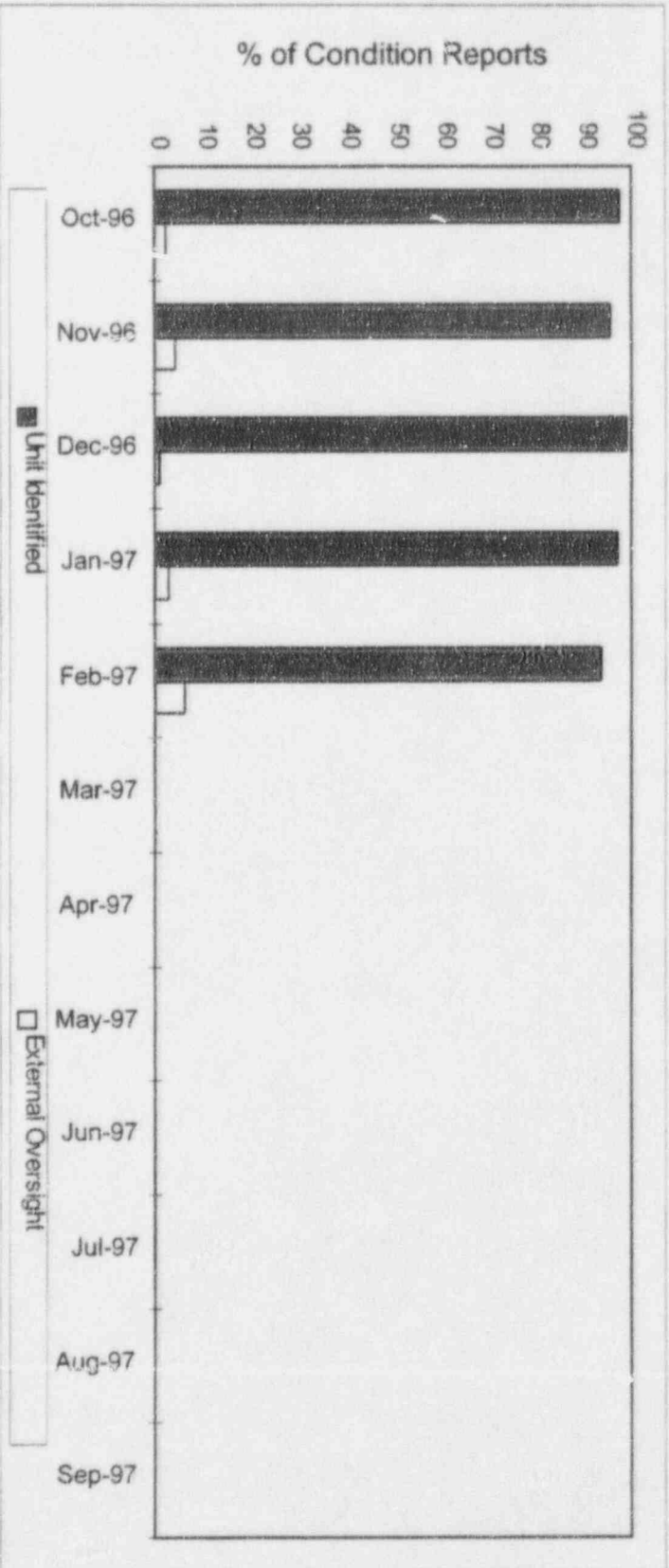
# Unit 1 Corrective Program Status



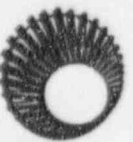
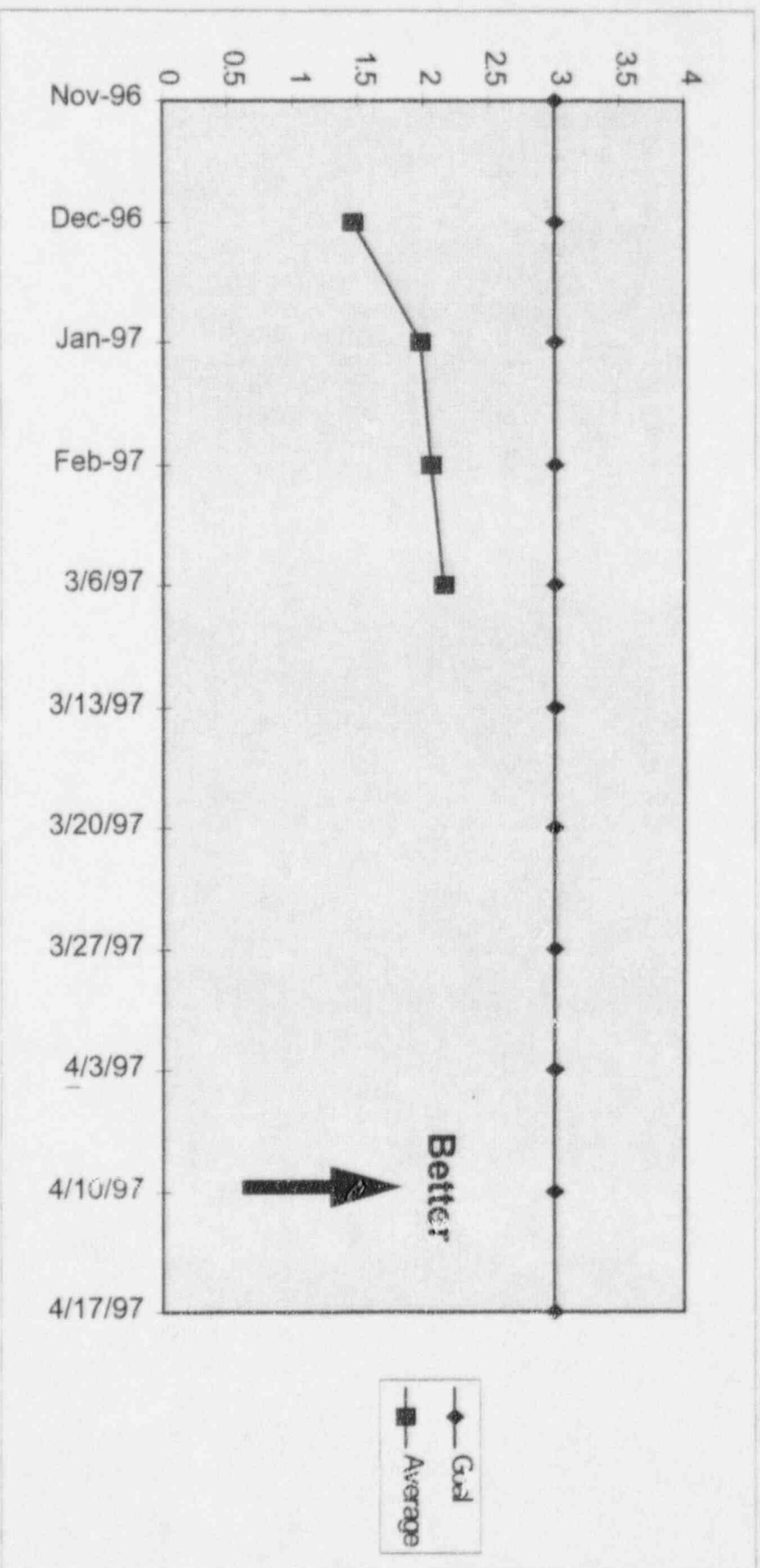
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**Restart Assessment  
Panel Meeting 3/18/97**

# Problem Identification - Unit 1



# Adequacy of CR Corrective Action Plans - Unit 1

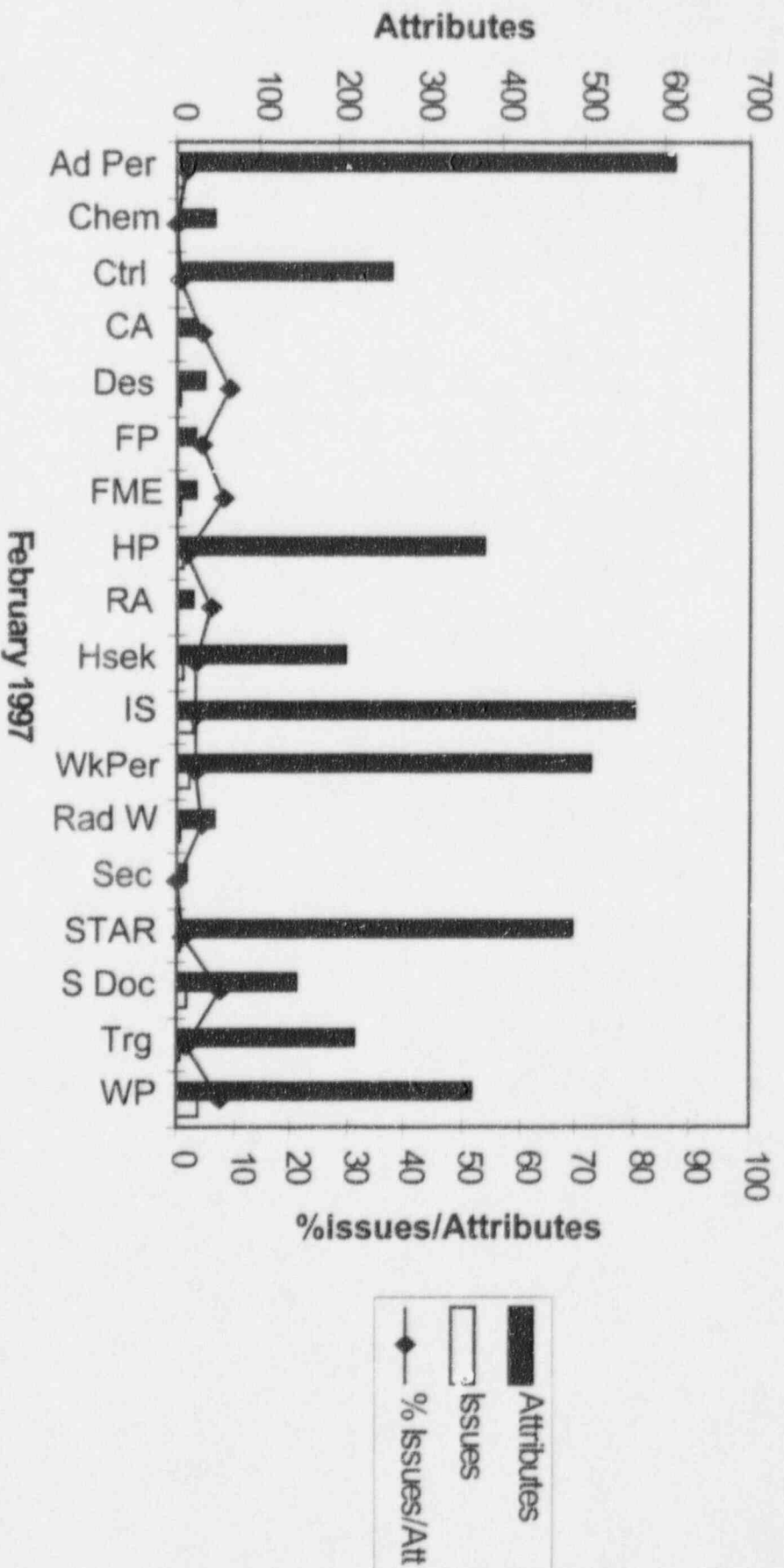


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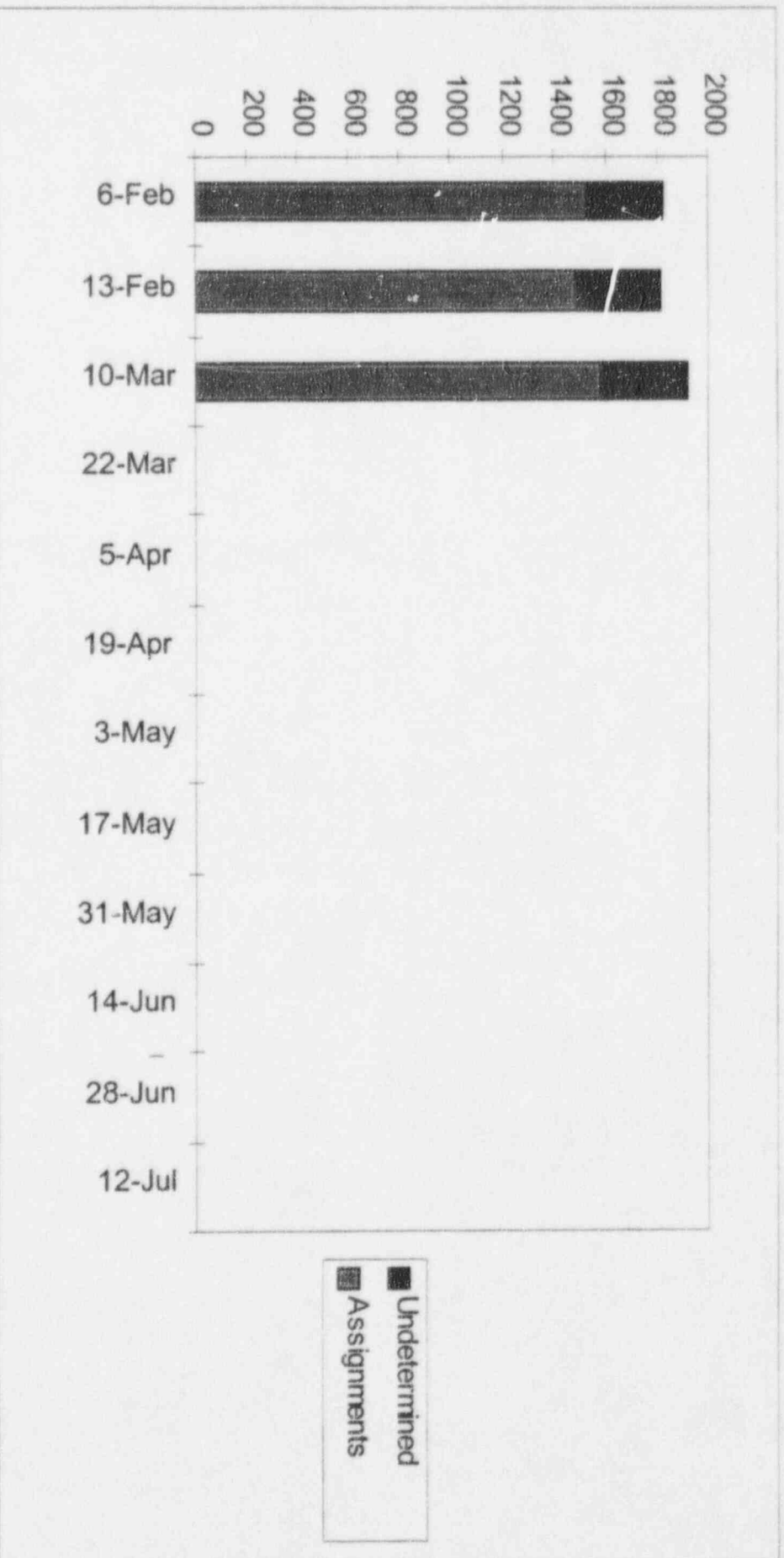
# Corrective Action Program

- **Additional Enhancements:**
  - **Upgraded Root Cause Analysis capability**
  - **Self-Assessment Program**
  - **Worker Observation Program**

# Worker Observation Program - Unit 1

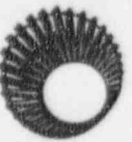
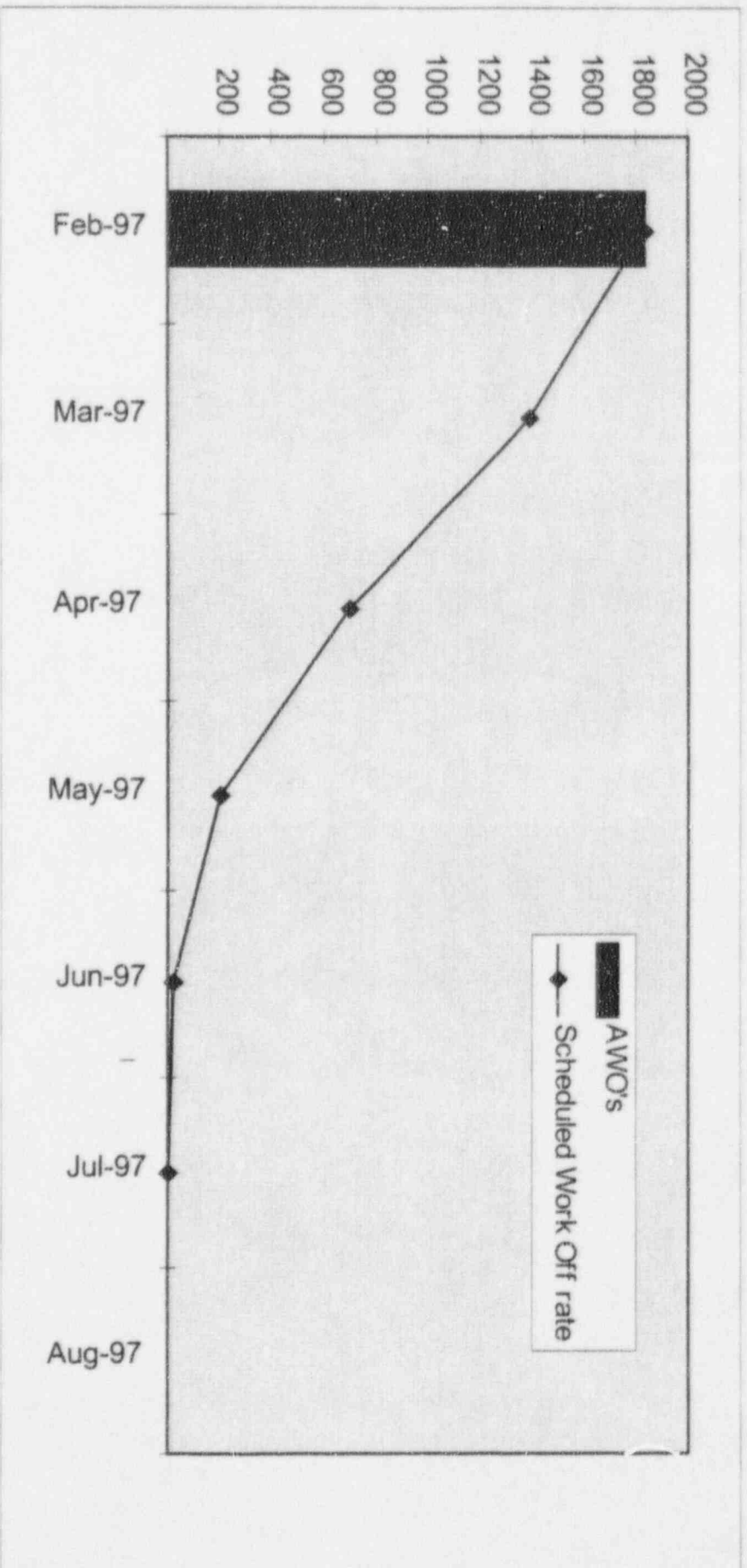


# AITTS Assignments for Restart - Unit 1



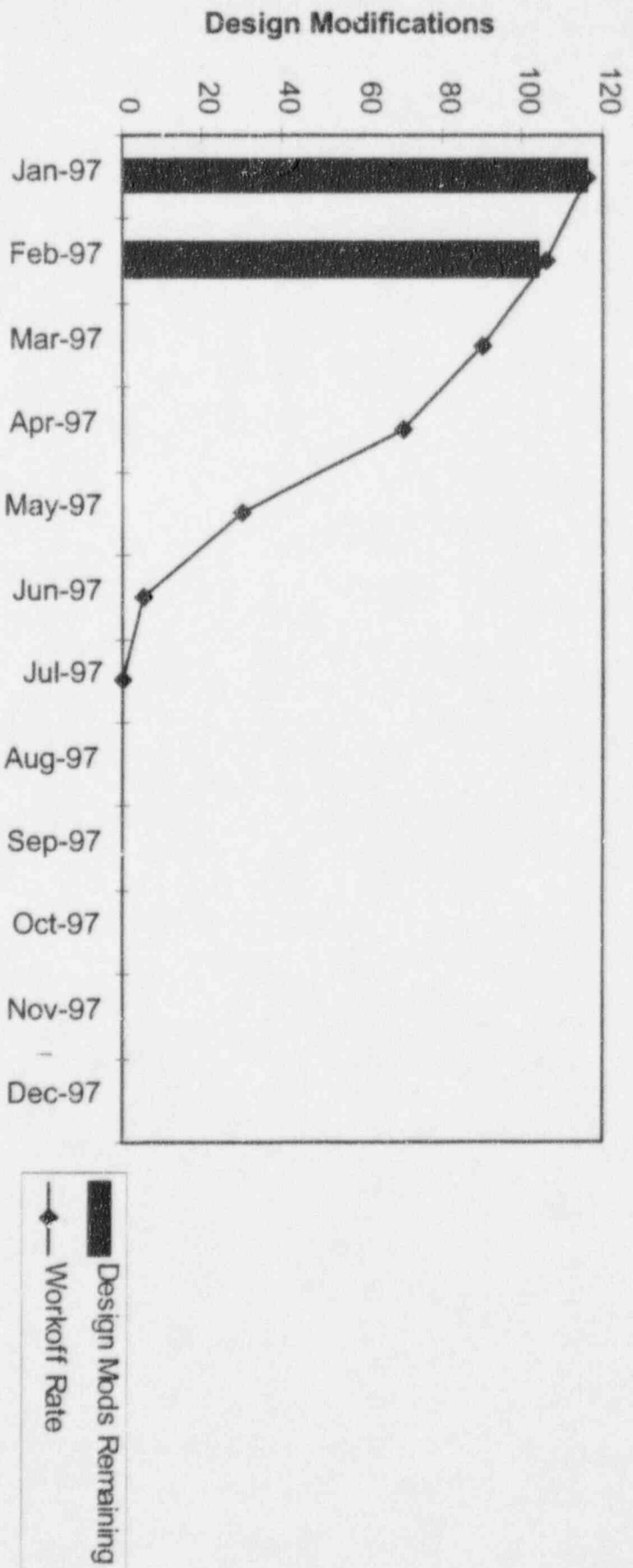
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# Maintenance Rule Group 1 and 2 AWO Backlog - Unit 1



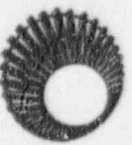
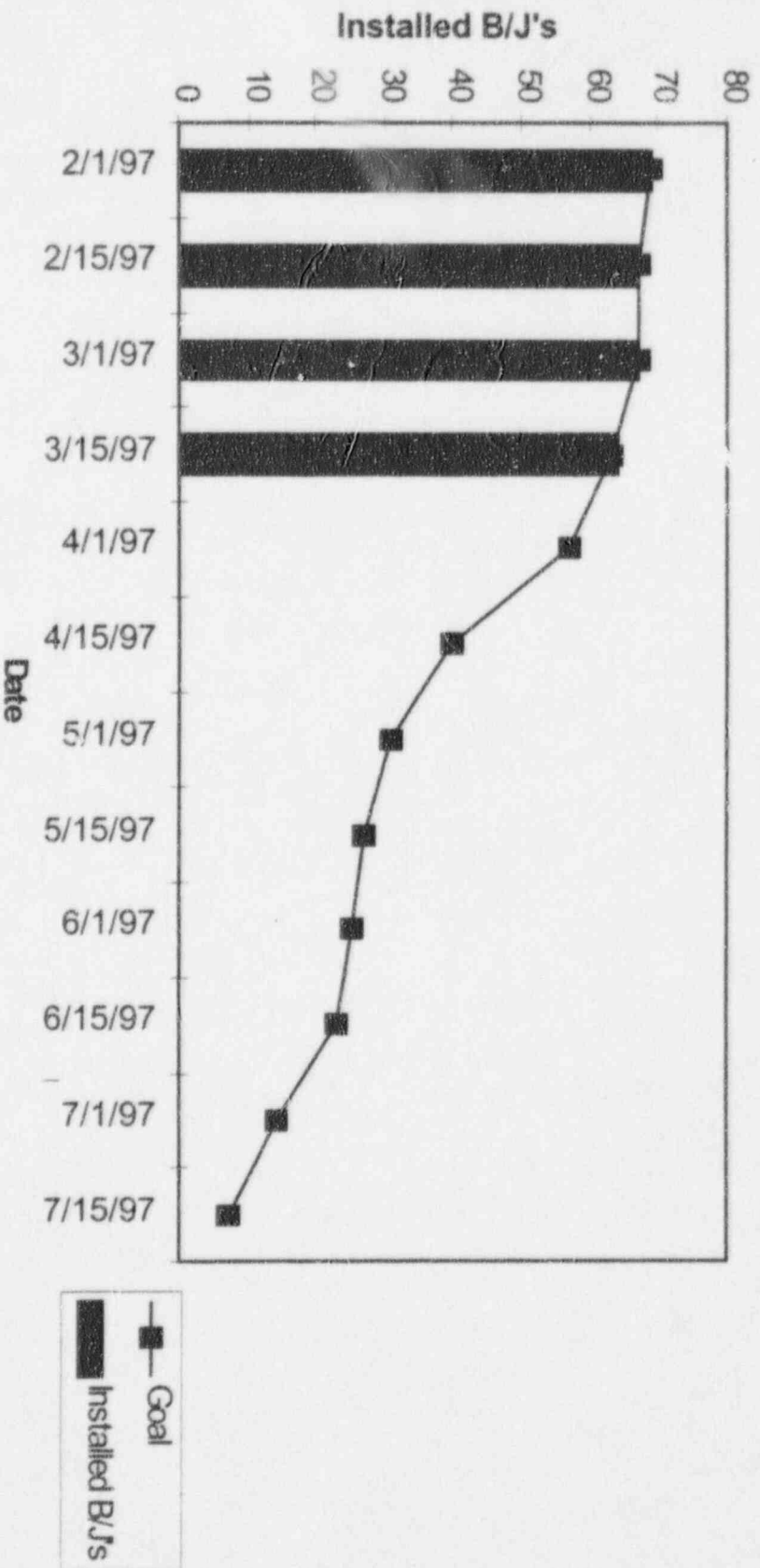
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# Restart Modification Status - Engineering Complete - Unit 1



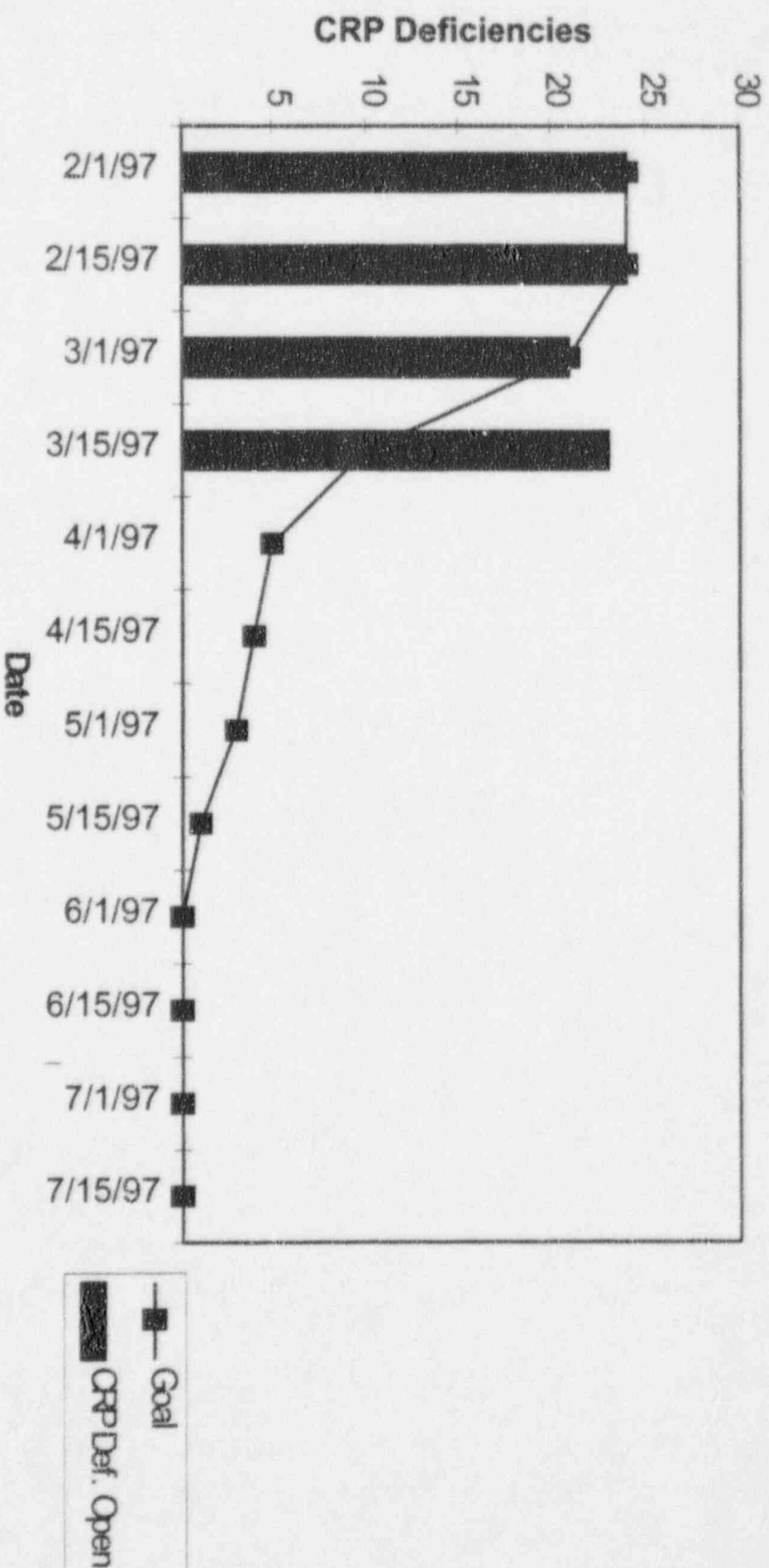
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# Temporary Modifications - Unit 1



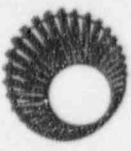
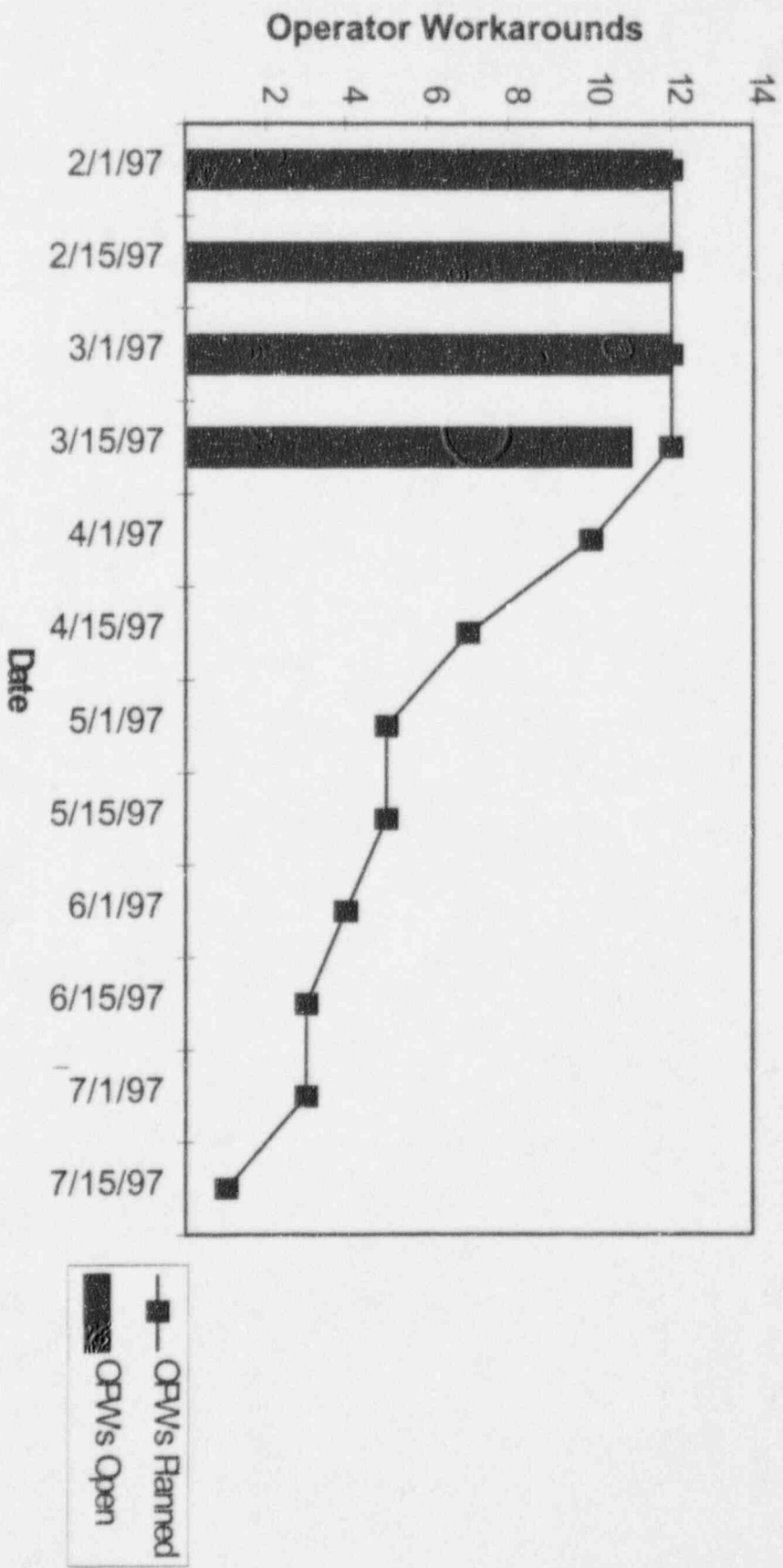
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# Control Room Deficiencies - Unit 1



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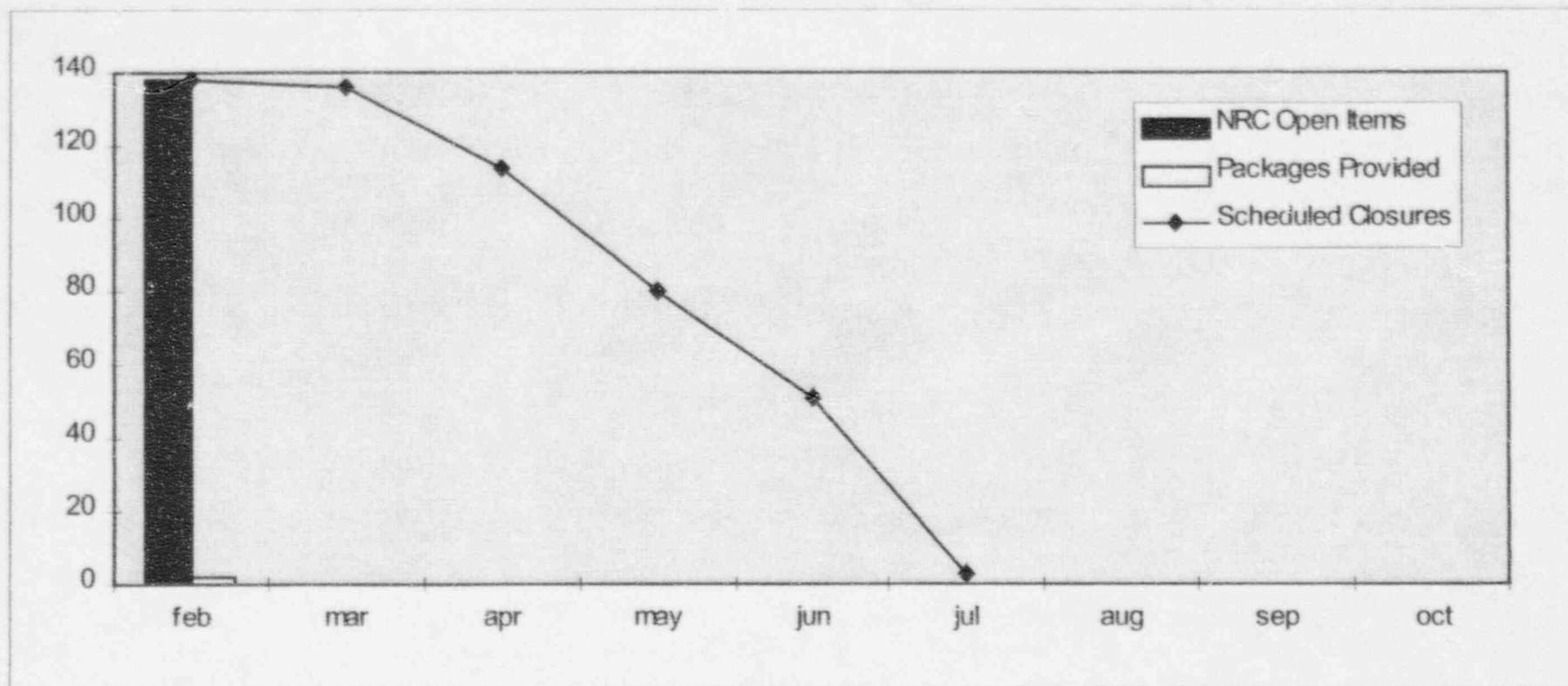
# Operator Work Arounds - Unit 1



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**Restart Assessment  
Panel Meeting 3/18/97**

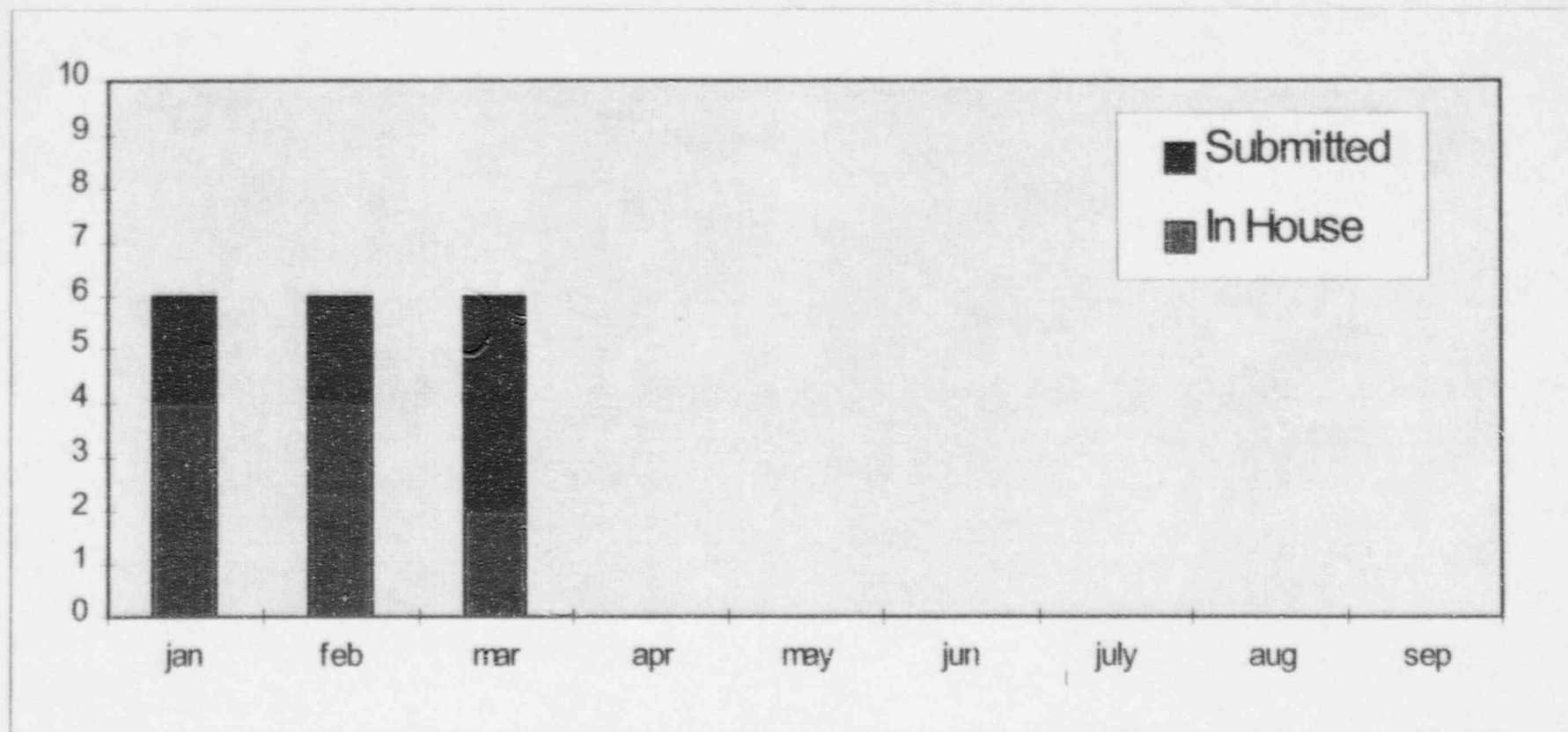
# NRC Open Items - Unit 1



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***Restart Assessment  
Panel Meeting 3/18/97***

# License Amendment Requests (LARs) - Unit 1



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# **Unit 1 Milestone Schedule**

- **April**      **Unit-wide self assessment**
- **4/10/97**   **Challenge Board for CMP  
Group I systems**
- **May**        **Unit self-assessment  
validation**
- **5/15/97**   **22 systems ready for core  
reload**
- **6/30/97**   **Long-term improvement plan  
developed**

# **Unit 2 Restart Activities**

**Marty Bowling**  
***Recovery Officer***  
***Millstone Unit 2***



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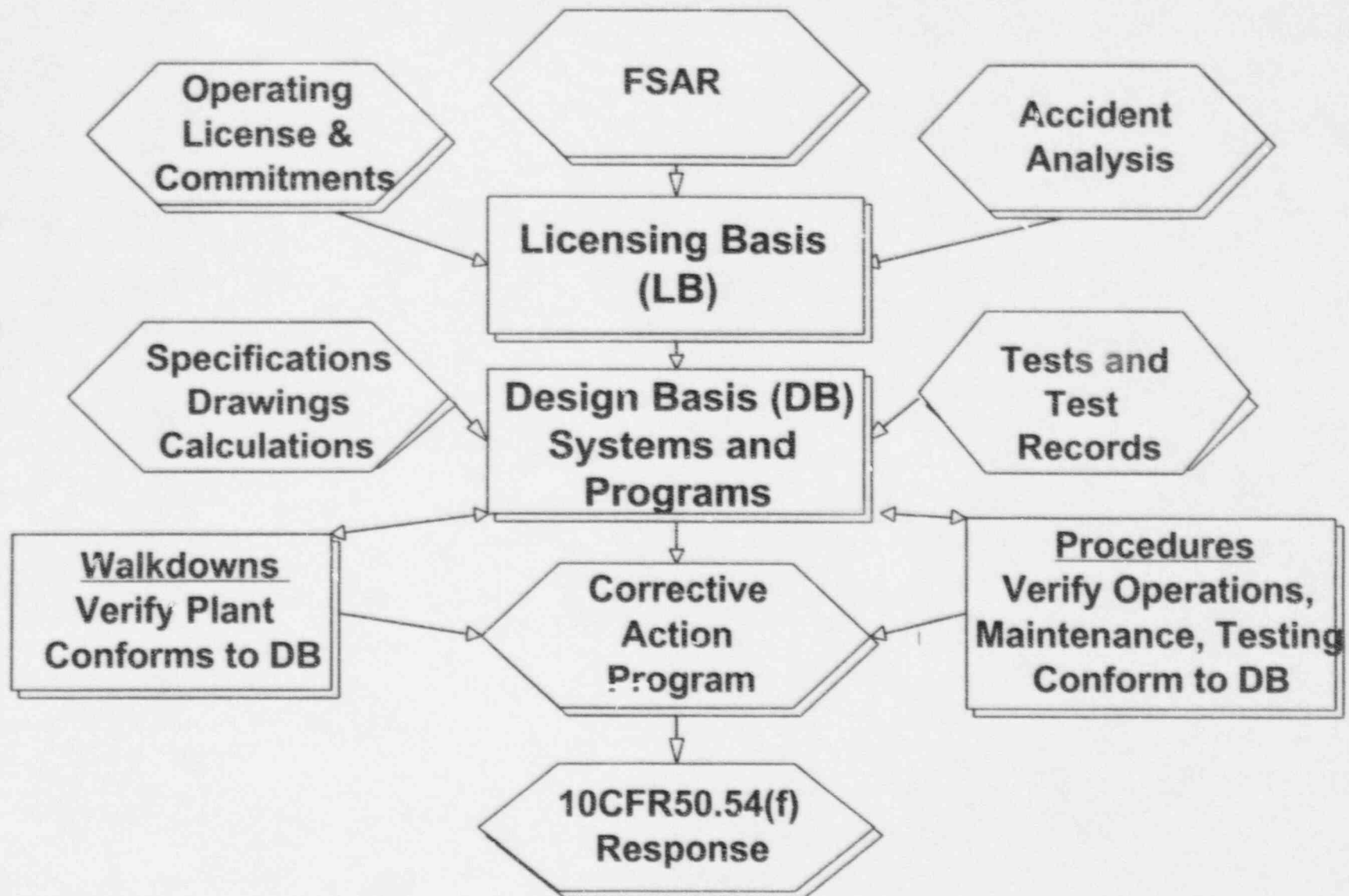
# **CMP and ICAVP Milestones**

- **12/96      Program assessment by Nuclear Oversight**
- **2/97        Process assessment by Nuclear Oversight**
- **2/14        Parsons Power recommended as ICAVP contractor for MP2**
- **3/3          Letter to NRC for May 5th ready for ICAVP**
- **3/18        Start Independent Technical Self Assessment**

# **CMP and ICAVP Milestones**

- **4/3**      **Parsons Power submits ICAVP Audit Plan to NRC**
- **4/18**      **Initial response to 10CFR50.54(f) letter**
- **5/5**      **Ready for ICAVP (*50% of MR Group 1 systems complete*)**
- **8/28**      **Maintenance Rule Group 1 & 2 Systems complete for restart**
- **9/15**      **Final response to 10CFR50.54(f) letter**

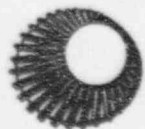
# Configuration Management Program Process Flow - Unit 2



## **Maintenance Rule Group 1 Status (30 Systems) - Unit 2**

<b><u>System Name</u> (12 ICAVP Systems)</b>	<b><u>Percent Complete</u></b>
<b>Pressurizer</b>	<b>25</b>
<b>Reactor Vessel</b>	<b>30</b>
<b>Low Pressure Safety Injection</b>	<b>25</b>
<b>Containment Spray</b>	<b>25</b>
<b>ESF Ventilation</b>	<b>30</b>
<b>Main Steam</b>	<b>30</b>
<b>Auxiliary Feedwater</b>	<b>30</b>
<b>125 Volt DC</b>	<b>30</b>
<b>Diesel Fuel Oil</b>	<b>30</b>
<b>Emergency Diesel Generator Ventilation</b>	<b>30</b>
<b>Reactor Protection System</b>	<b>25</b>
<b>Emergency Diesel Generator</b>	<b>25</b>

# ICAVP Contractor Selection



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Utilities System**

# Financial and Organizational Independence

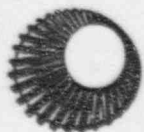
## Corporation

- Parsons has no financial interest in NU or its original design contractors
- Parsons is doing no current work at Millstone
- Previous work by Parsons is small in relation to revenues from other sources
- Parsons is doing no work for the NRC

# Financial and Organizational Independence *(cont)*

## Team Members

- Resumes indicate no prior work at MP2 - *confirmed by Security review*
- Each member required to certify independence from NU and its design contractors involved in original unit design



# **Previous Work Performed by Parsons**

## **All Nuclear Units**

**1984      Quality Assurance services**

**1992      Process mapping services for MOV, HELB,  
and CMP**

## **Millstone 1 and 2 and CT Yankee**

**1990      Review of check valve program**

## **Millstone 2 and 3**

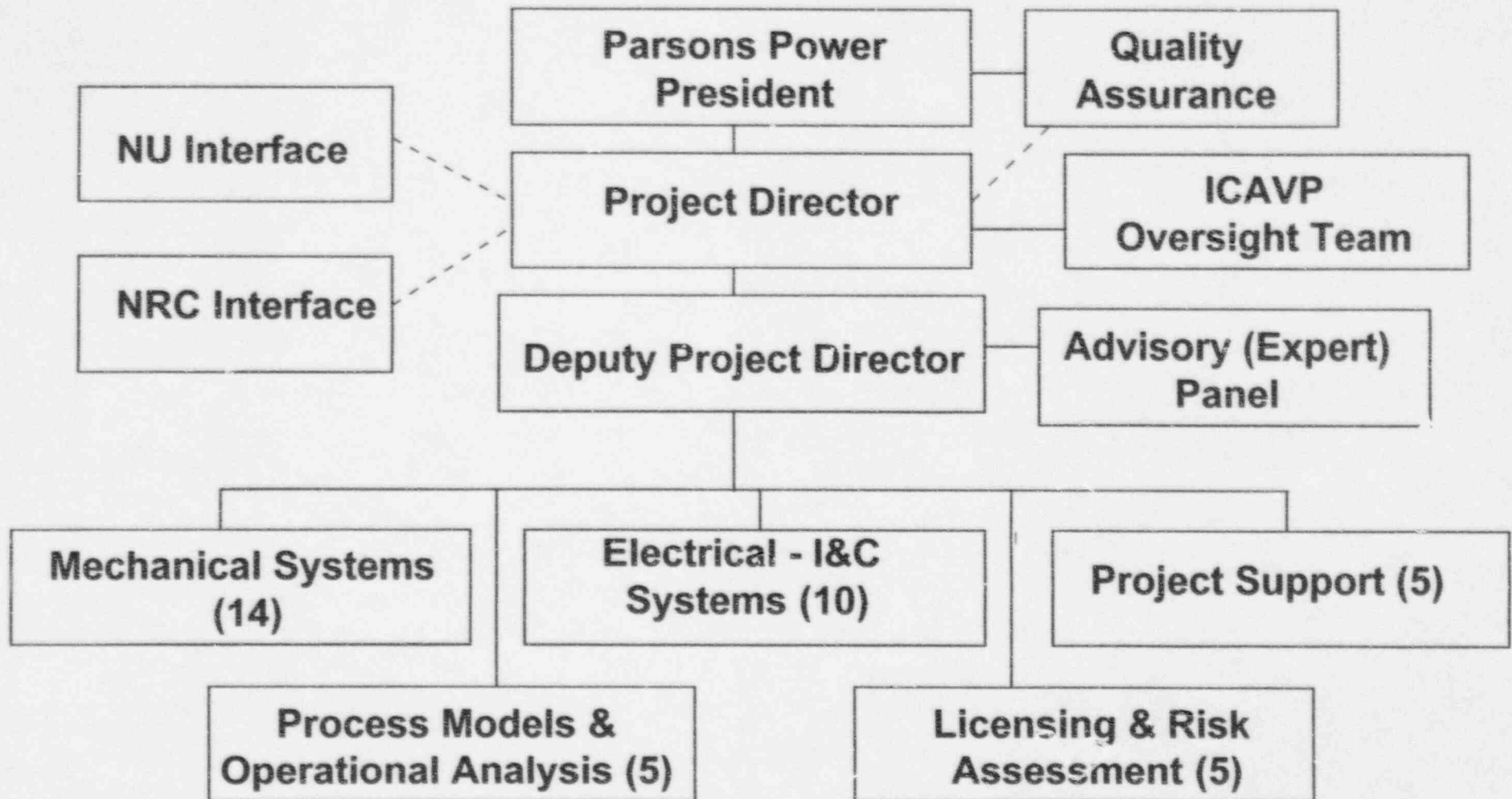
**1992      Erosion / corrosion inspection criteria and  
independent review of piping corrosion  
(subcontracted by Altran Corp)**

# **Policy on Restricting Future Work**

***The contract will preclude Parsons'  
work for 12 months at Millstone***



# ICAVP Parsons Power *Project Organization*



# Qualifications of Project Team

## General Qualifications

- Core Team includes 12 MS degrees, 6 Ph.D degrees, 23 Professional Engineers, and 3 former Senior Reactor Operators (SROs)
- Core Team has approximately 25.5 years average experience in the power industry
- Team leader is a Parsons executive

# **Qualifications of Project Team** *(continued)*

- **Engineering Disciplines**
  - **mechanical engineering** (11)
  - **electrical engineering** (5)
  - **instrument and control engineering** (4)
  - **civil / structural engineering** (3)
- **Plant Operations and Maintenance** (5)
- **Probabilistic Risk Assessment** (2)
- **Licensing** (3)
- **Other Specialists** (4)

# **Change to Parsons Project Team**

- **Parsons procedure for changing personnel will be approved by the NRC:**
  - **technical experience**
  - **independence**

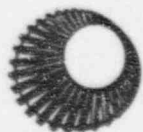


# **Parsons Process for Differing Professional Opinions (DPOs)**

- **Project Director is responsible for resolving differences between the Core Team and the Technical Advisory Panel**
- **The Deputy Project Director is responsible for resolving differences within the Core Team**
- **Notification made to NRC of DPO initiation and resolution**
- **Unresolved differences be submitted to the Project Director and the QA Manager**
- **NU Employee Concerns Program may also be utilized**

# Conclusions

- **Parsons meets all provisions of the NRC Order**
  - *independence*
  - *technical capability*
- **Well-qualified team**
  - *well-formulated project plan*
  - *experienced team*
  - *company executive as project leader*



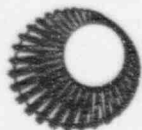
# **Corrective Action Program Progress**

- **Revised Corrective Action Program Procedure implemented**
- **Department staffing**
  - **Self-Assessment Coordinator (1)**
  - **Root Cause Specialists (3)**
  - **Corrective Action Coordinators (7)**
- **No NRC open items currently overdue**



# **Corrective Action Program Progress (cont.)**

- **12 open item closure packages provided to NRC. (*Schedule for remaining items is updated weekly.*)**
- **Issue Trending Report on 4/15/97 for first quarter 1997**
- **Self-assessment of Corrective Action Program by 4/30/97**



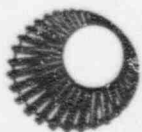
# **Attributes of Management Self-Assessment**

- **Scope should cover all areas important to safe operation**
- **Standards should be defined and promoted**
- **Assessment criteria should be measurable performance and should be able to detect both short and long-term trends**



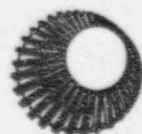
# **Attributes of Management Self-Assessment *(cont.)***

- **Frequency should be sufficient to keep management at all levels updated with current performance**
- **Purpose and results should be visible to all plant staff**
- **Training, qualification, and experience of personnel involved in the assessment program must be appropriate to the activity being assessed**

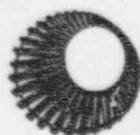
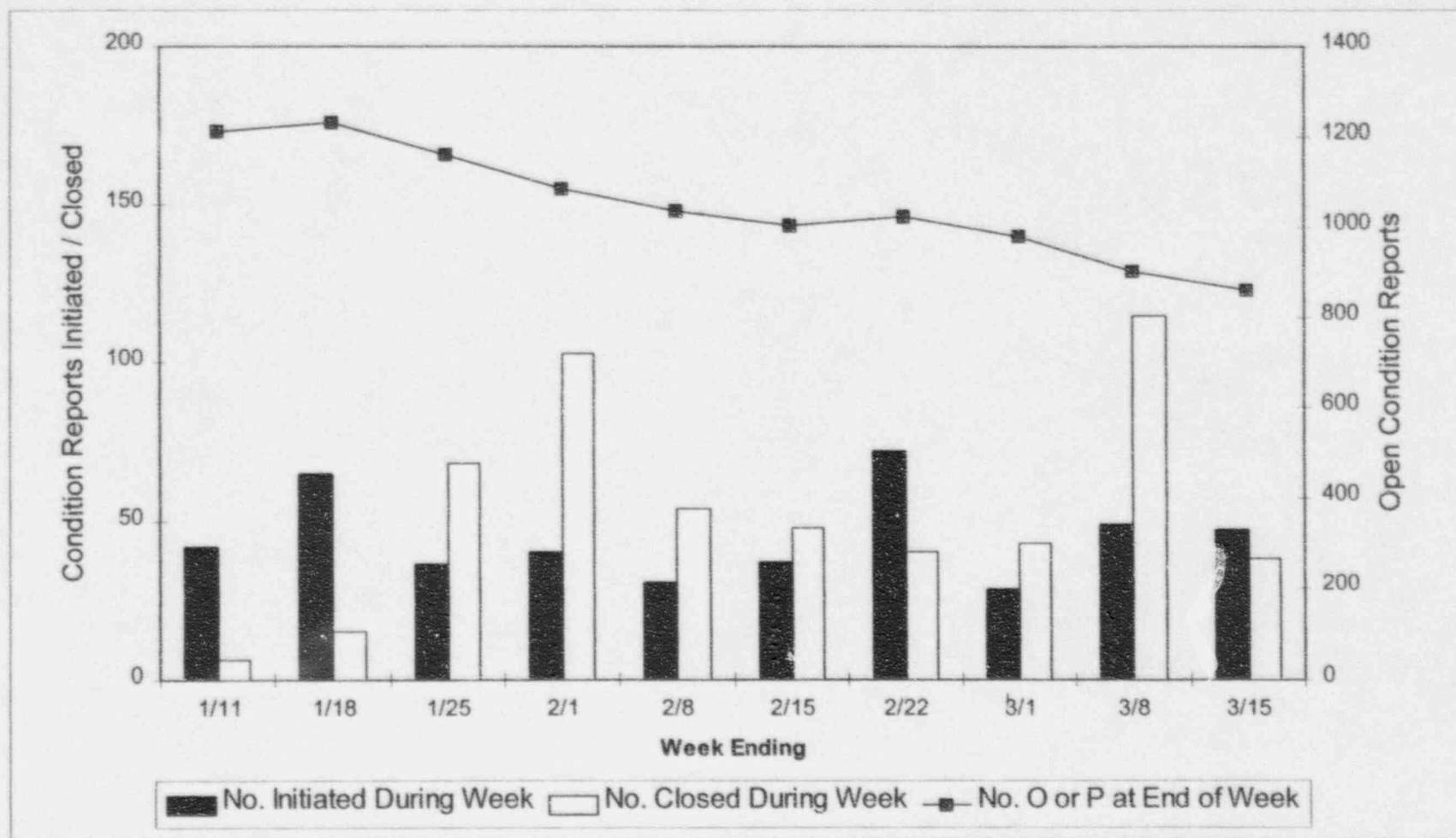


# Management Self-Assessment Technique Matrix

Preventive	Monitoring	Reactive
<b>Self-Check</b> <b>Pre-Job Briefs</b> <b>Shift Turnovers</b> <b>3-Way Communications</b> <b>Training</b>	<b>KPIs</b> <b>Benchmarking</b> <b>Trending</b> <b>Review of Programs</b> <b>and Processes</b> <b>Peer Observations</b> <b>Post-job Briefs</b>	<b>Root Cause</b> <b>IRT</b> <b>INPO Assist Visit</b>



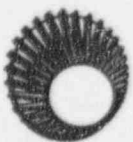
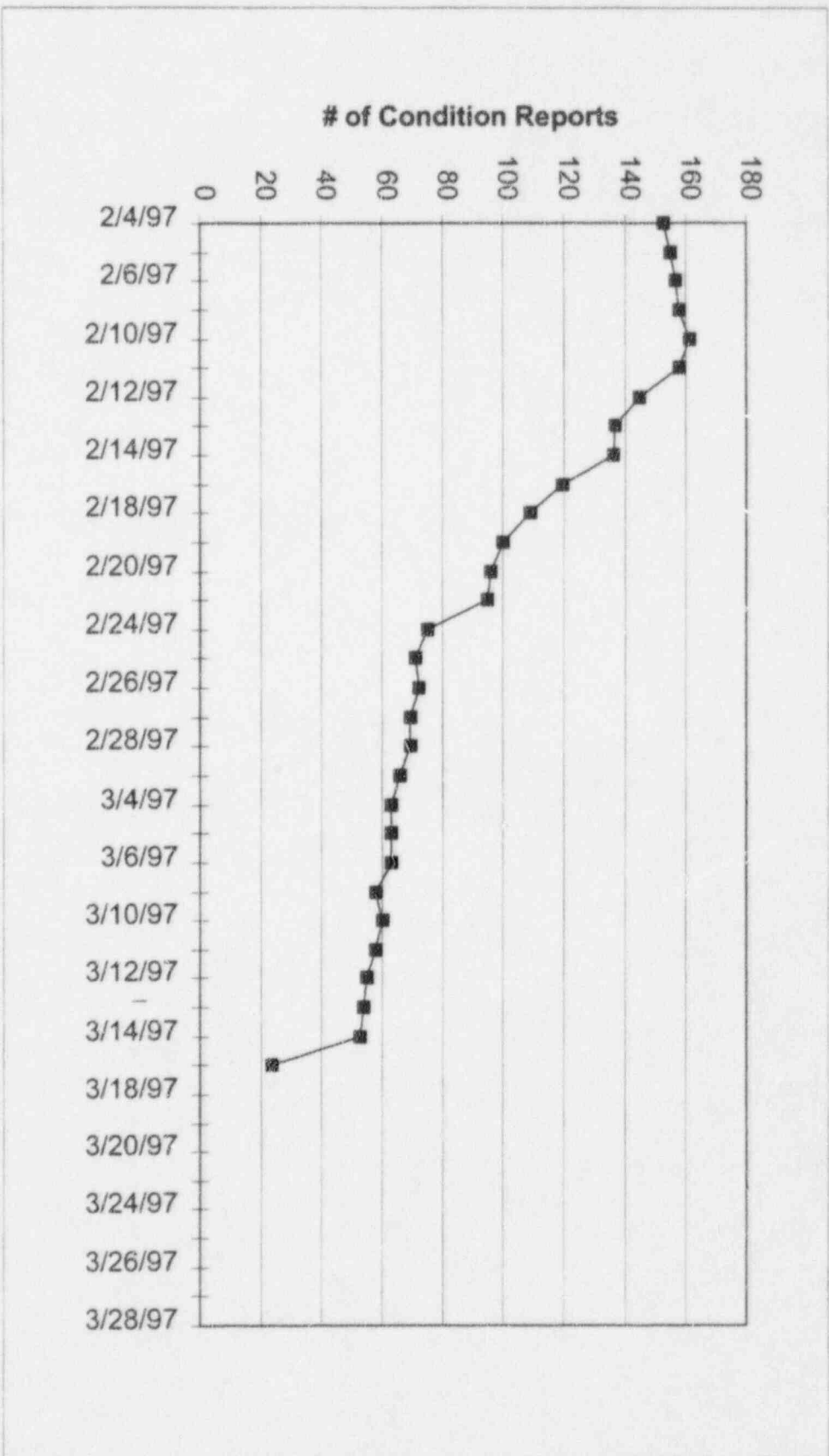
# Condition Report Status - Unit 2



**Northeast  
Utilities System**

***Restart Assessment  
Panel Meeting 3/18/97***

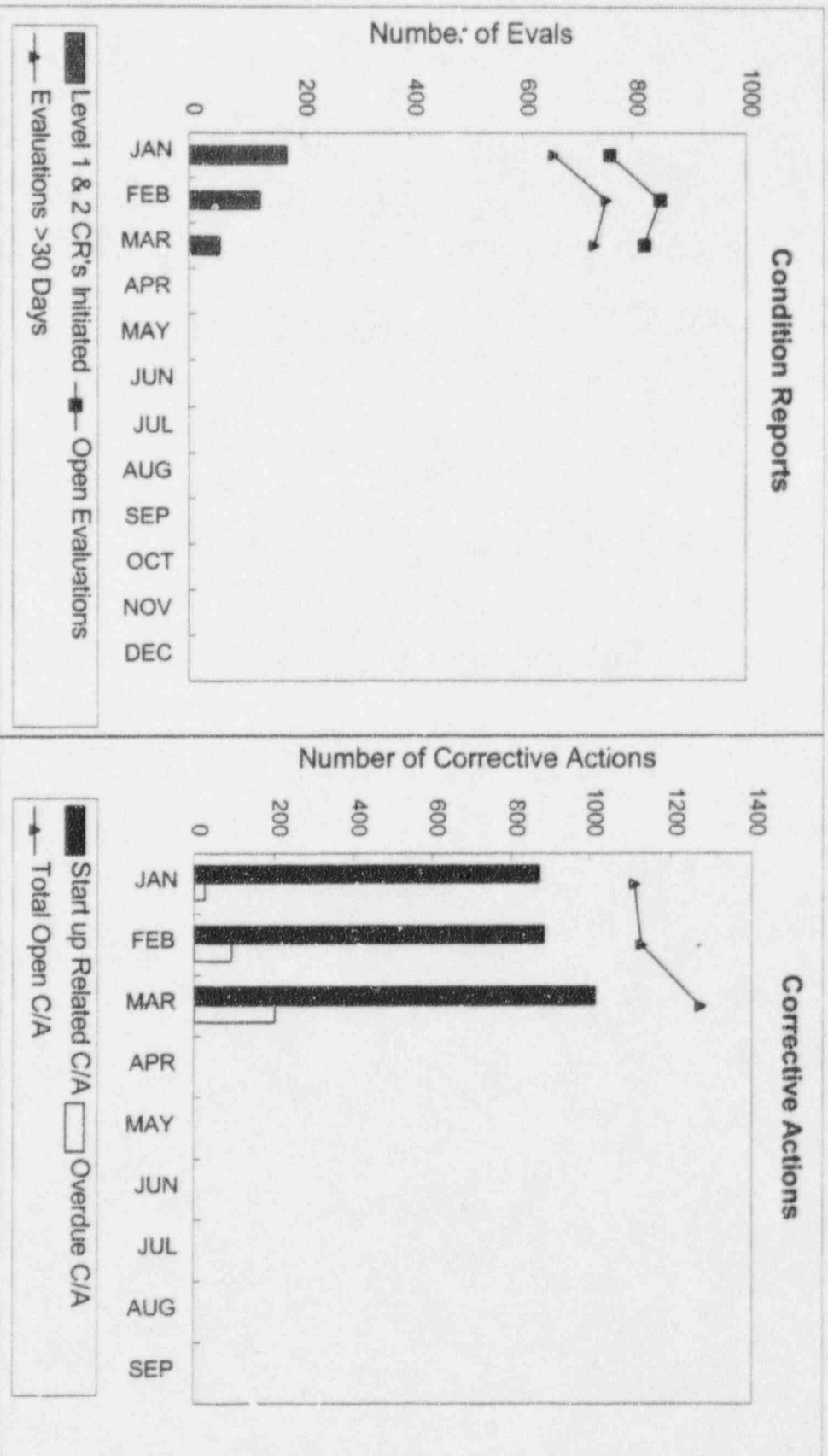
# Condition Report Evaluations Related to Phase 1 Systems - Unit 2



**Northeast  
Utilities System**

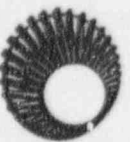
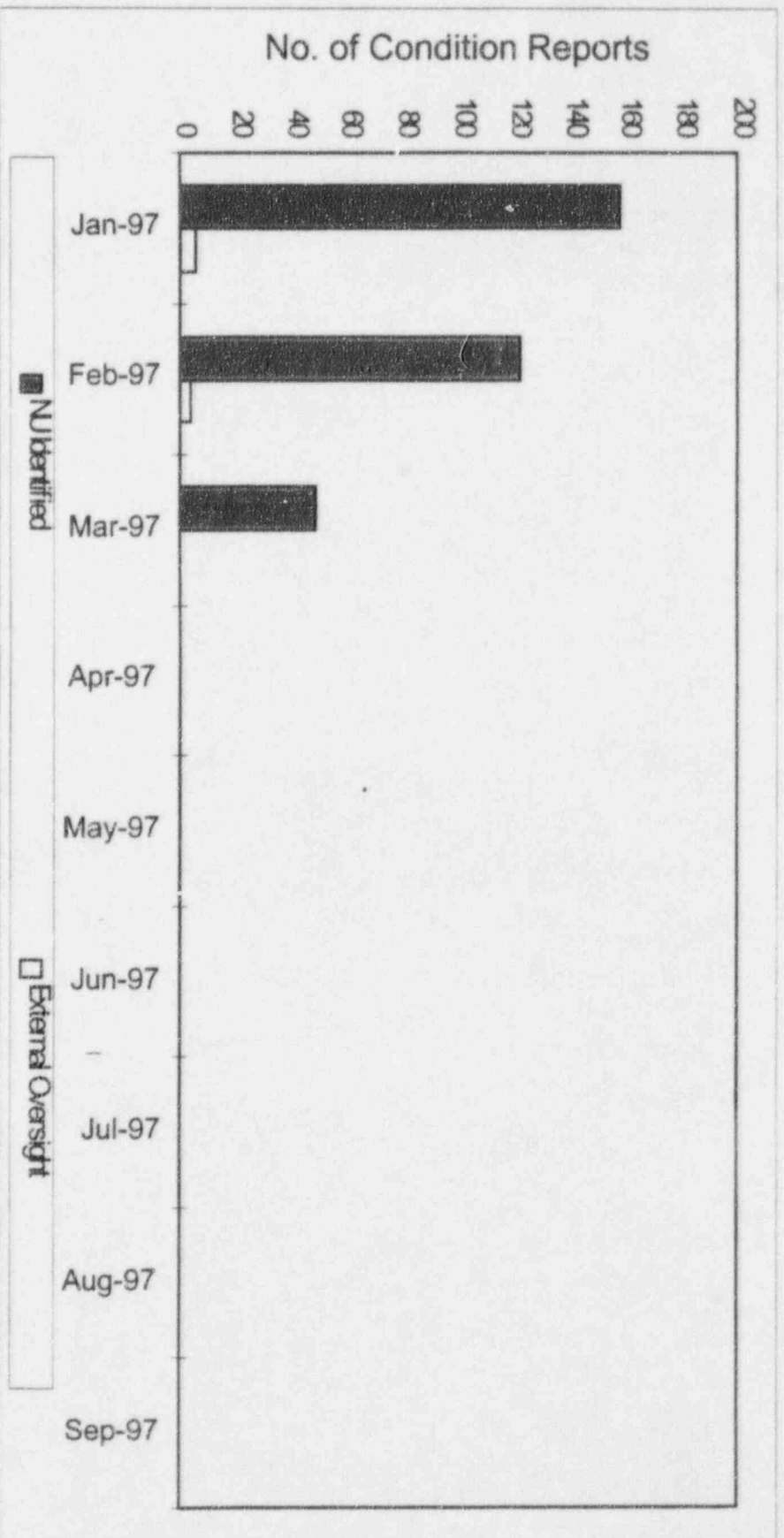
**Restart Assessment  
Panel Meeting 3/18/97**

# Corrective Action Program Status - Unit 2



Northeast  
Utilities System

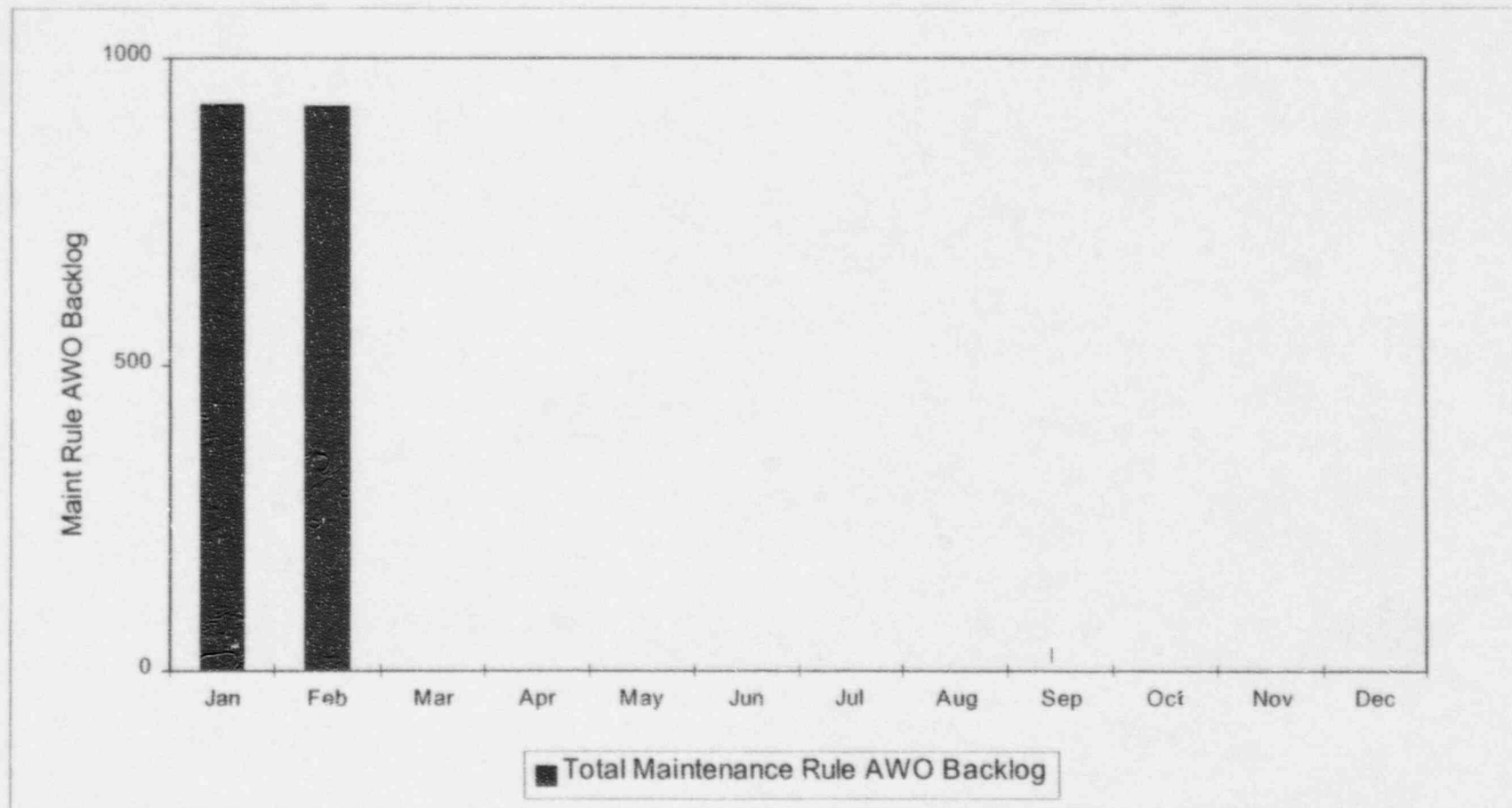
# Problem Identification - Unit 2



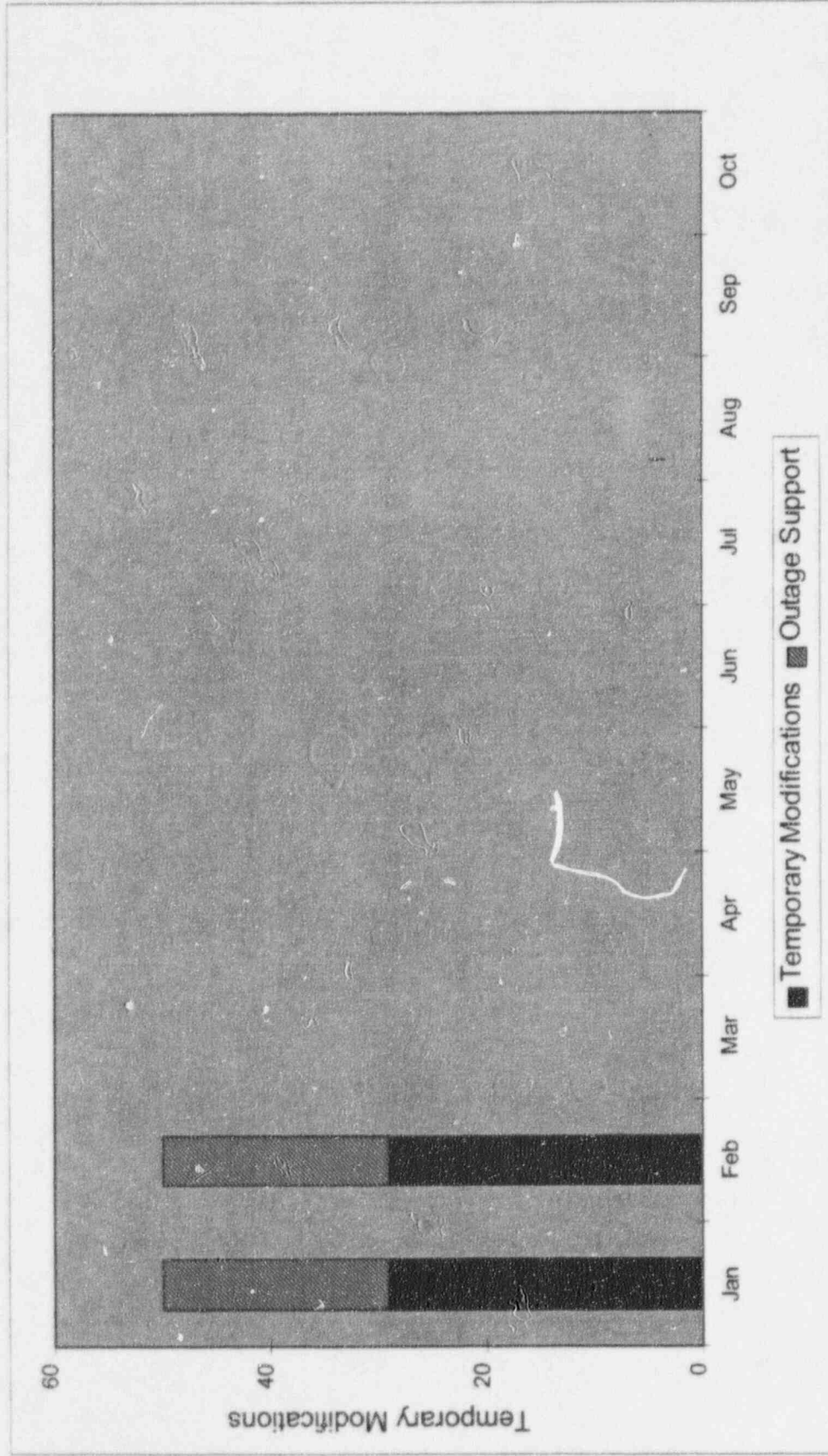
**Northeast  
Utilities System**

# Maintenance Rule AWO Backlog

## Unit 2



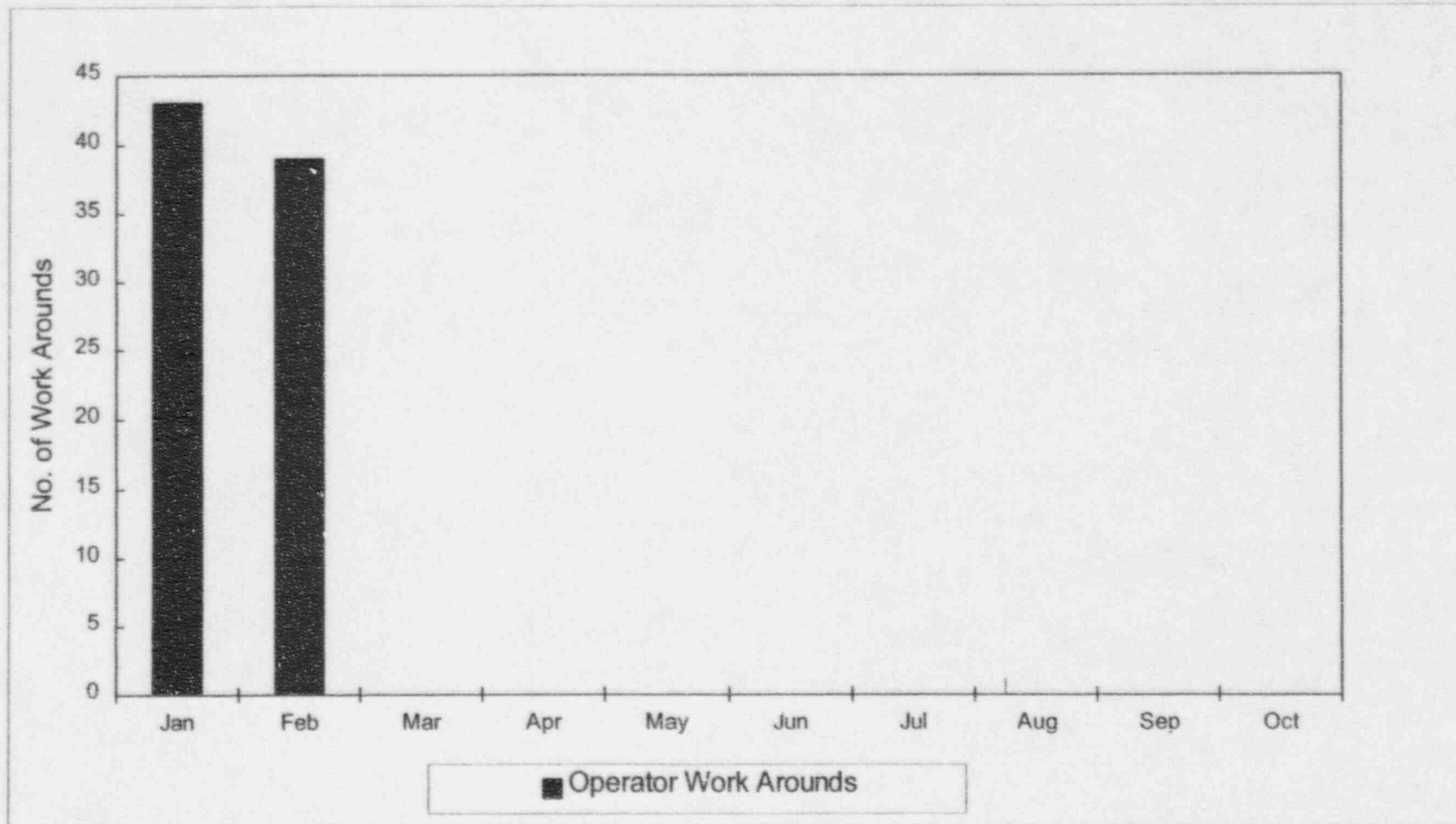
# Temporary Modifications Total Installed - Unit 2



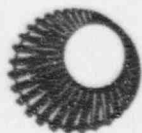
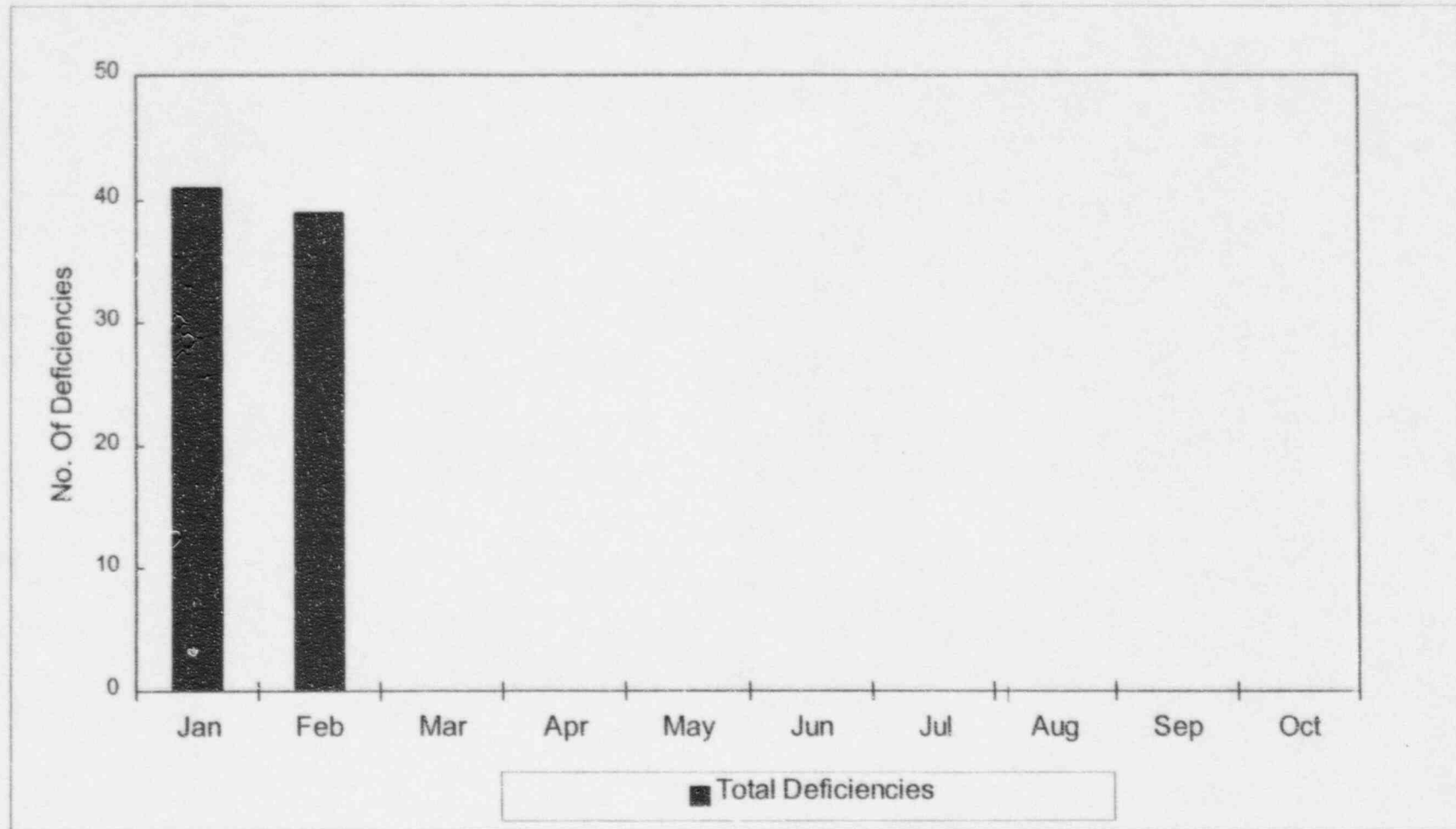
**Northeast  
Utilities System**

**Restart Assessment  
Panel Meeting 3/18/97**

# Operator Work Arounds - Unit 2



# Control Room and Annunciator Deficiencies - Unit 2



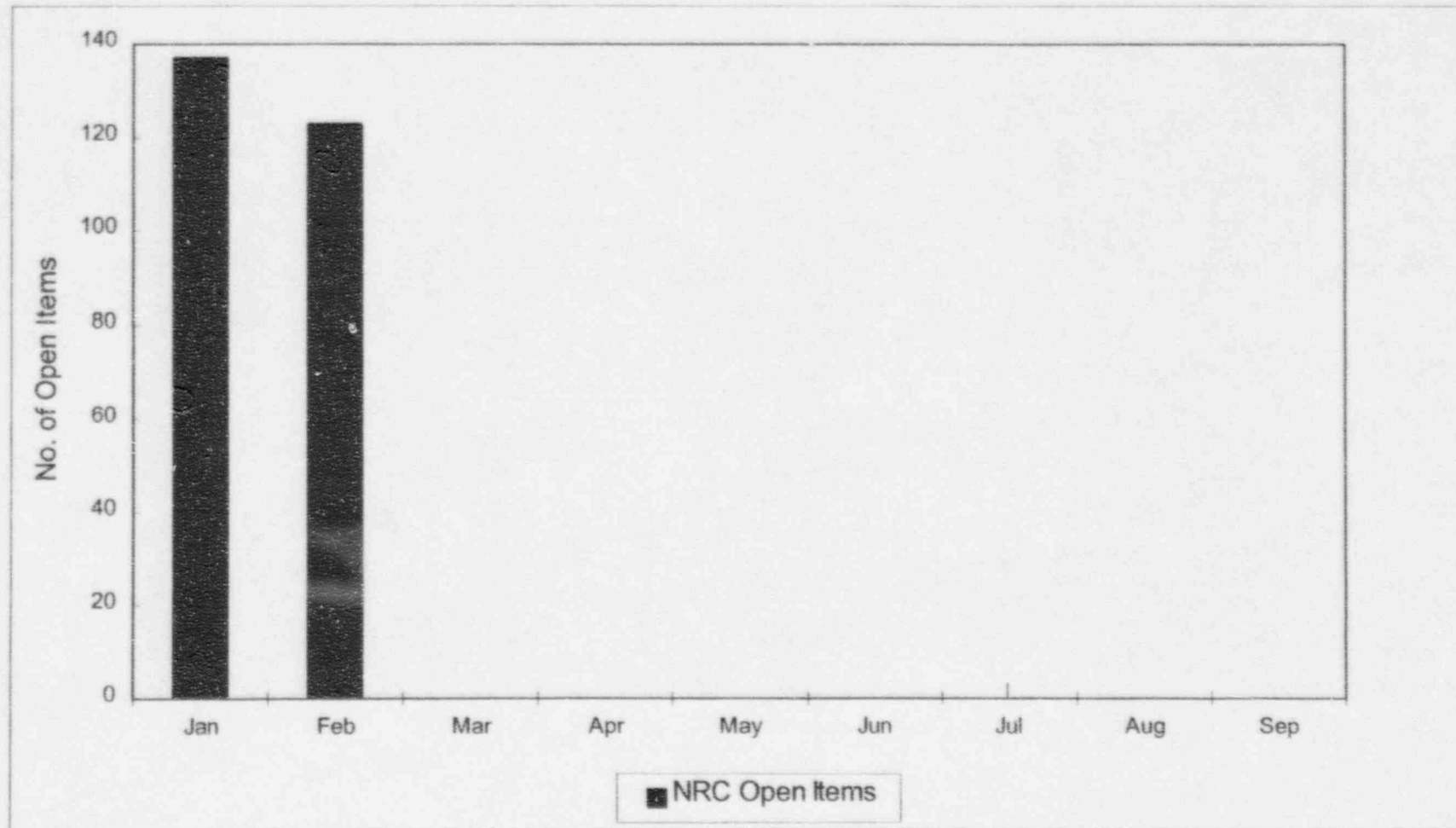
**Northeast  
Utilities System**

# MP2 Restart Modifications

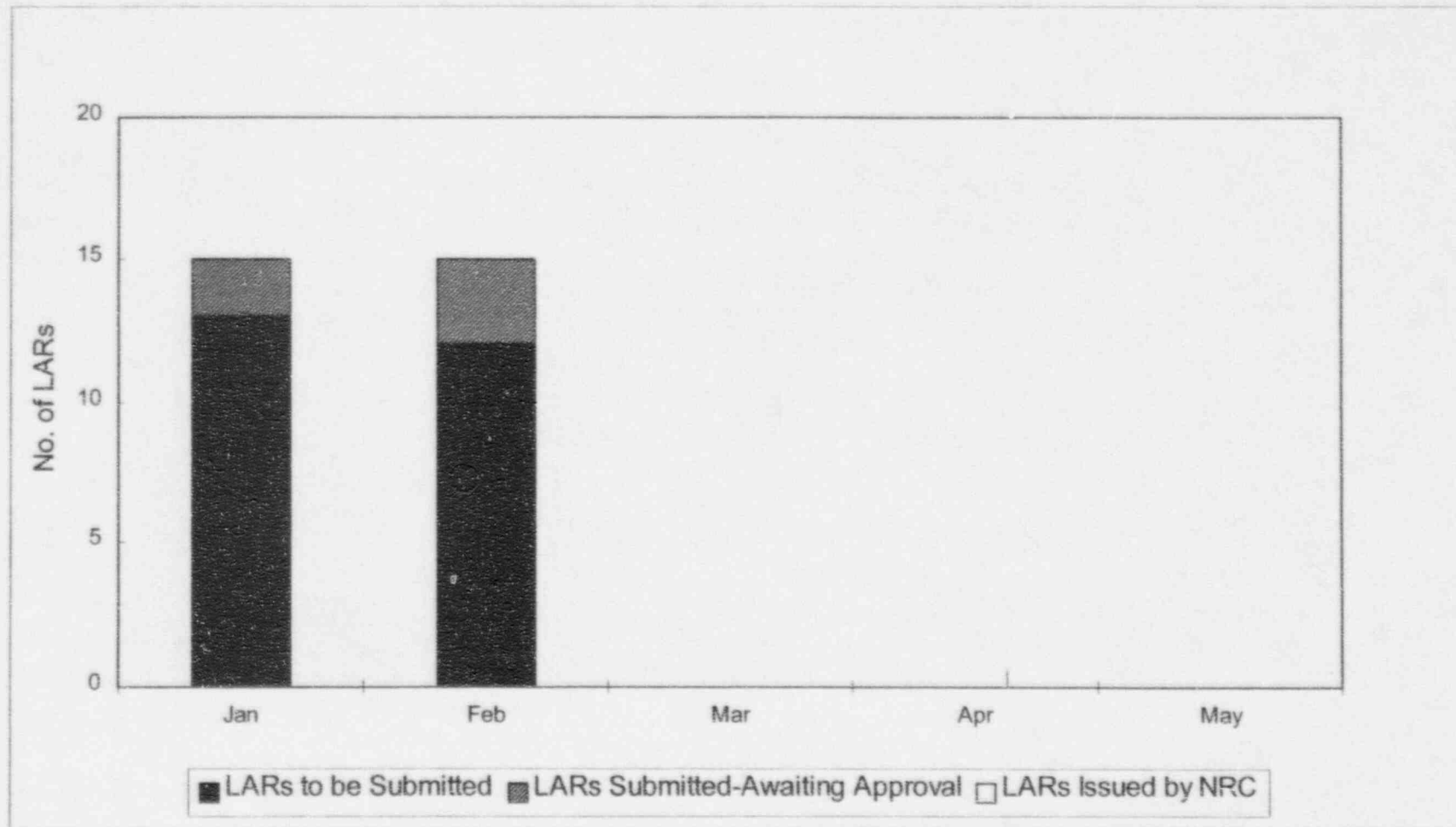
- 86 modifications required for readiness
- 81 modifications remaining
- Engineering issued on 14 of 81 remaining packages
- Project Management organization has been formed



# NRC Open Items - Unit 2

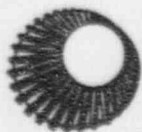
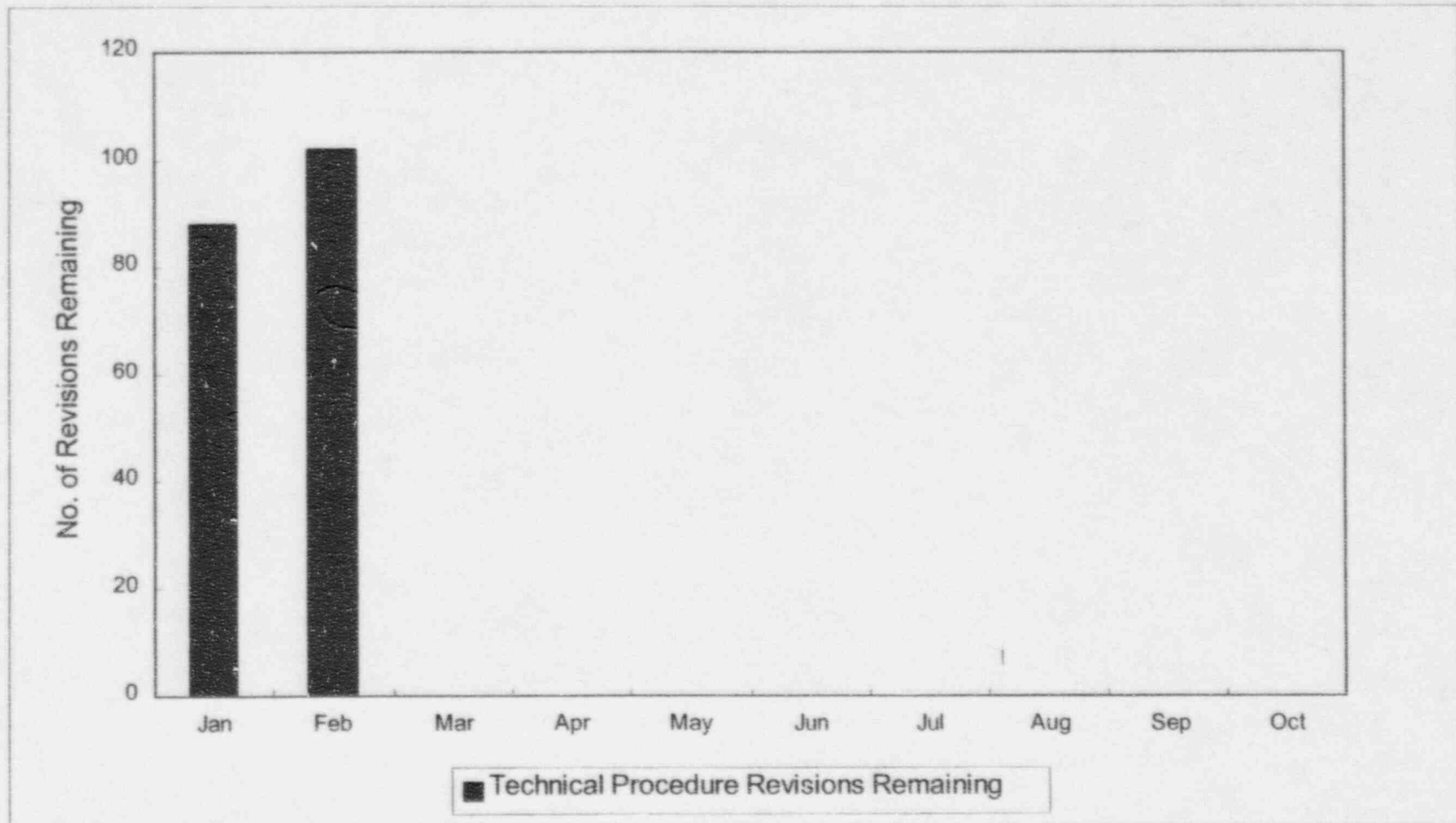


# License Amendments Requests (LARs) - Unit 2



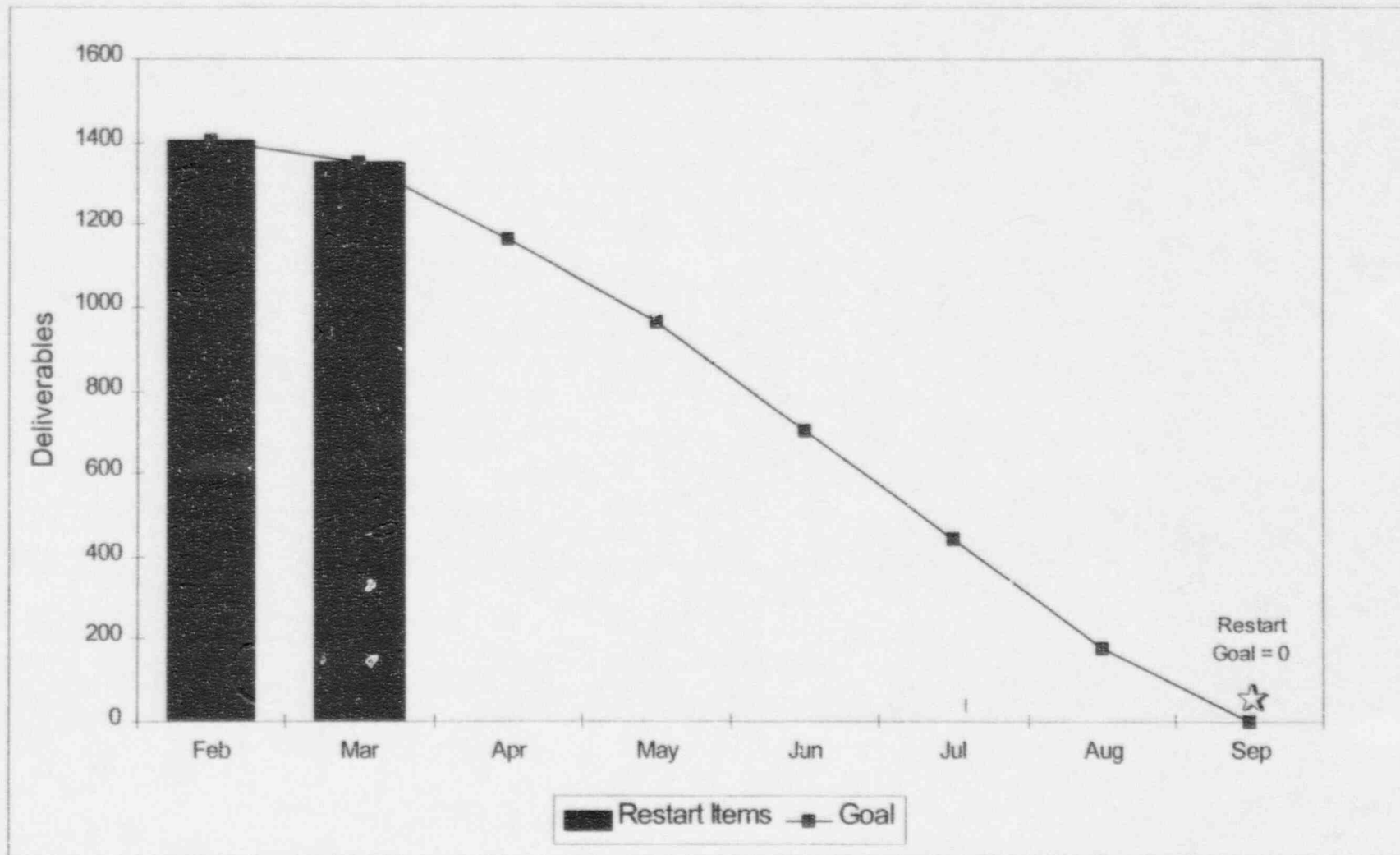
**Northeast  
Utilities System**

# Procedure Revision Backlog *Required for Startup - Unit 2*



**Northeast  
Utilities System**

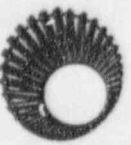
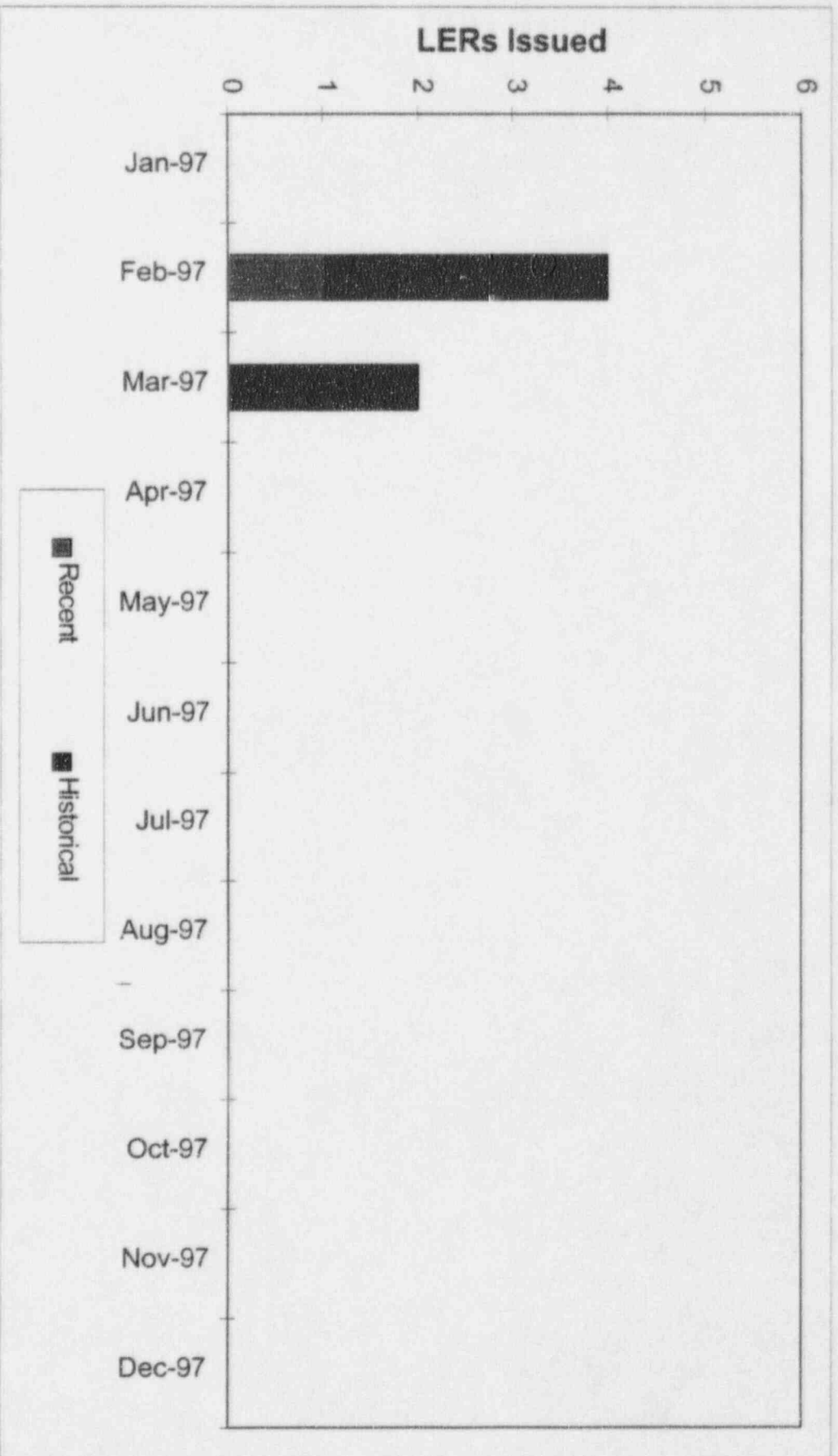
# Restart List - Unit 2



**Northeast  
Utilities System**

**Restart Assessment  
Panel Meeting 3/18/97**

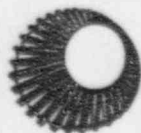
# Licensee Event Reports (LERs) - Unit 2



Northeast  
Utilities System

# **Employee Concerns**

**Dave Goebel**  
***Vice President***  
***Nuclear Oversight***



**Northeast  
Utilities System**

# Employee Concerns Program Status

- Program enhancements
- ECP Concern status
- Comprehensive Plan
- Employee Concerns Oversight Panel
- Independent Third-Party Oversight Program (ITPOP)

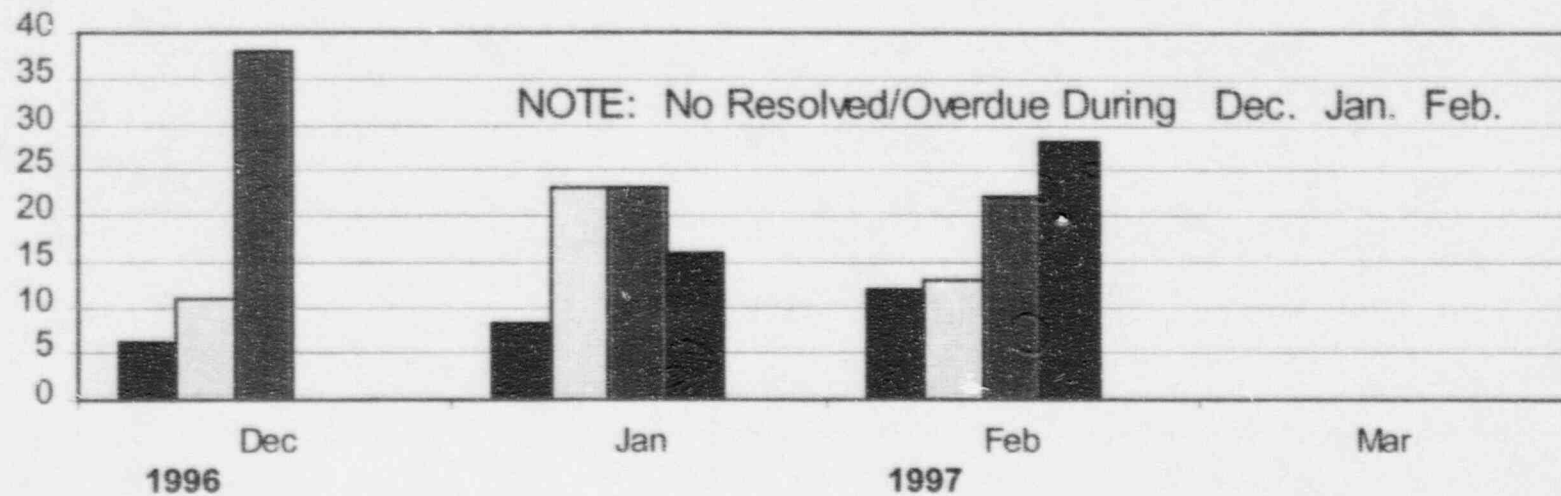


# ECP Program Enhancements

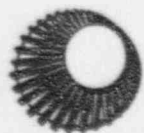
- New procedures and processes
  - to implement multi-stage ECP process
- Additional contractors hired
  - to help reduce backlog of concerns  
*(highly experienced and specialized investigation skills)*
- MP ECP facilities upgrade
  - to help facilitate concern resolution



# ECP Concern Status



■ Rec'd    □ Resolved (This Month)    ■ Total Unresolved    ■ Total Resolved/Pending Closure    ■ Resolved/Overdue



**Northeast  
Utilities System**

# Comprehensive Plan Status

- Nuclear CEO's *Employee Concerns Expectations* distributed to employees and contractors
- Comprehensive Plan mission and goals promulgated
- Developing formal training for ECP staff



# Comprehensive Plan Status

- **Developing permanent ECP positions**
  - finalizing formal position descriptions
  - solicit and select candidates
- **Peer Representative Program**
- **Developing ECP operating procedure and Operations Handbook**



# **Comprehensive Plan Action Plan Status**

- **First two Action Plans issued 2-28-97 and being implemented**
  - **Communications**
  - **Employee Concerns Program**
- **Remaining eight Action Plans to be issued by 3-30-97**
  - **Human Resources**
  - **Training**
  - **Employee Concerns Oversight Panel**
  - **Employee Concerns Program (5)**

# **Employee Concerns Oversight Panel**

***“Provides oversight of, and assesses,  
the Employee Concerns Program  
and the Millstone Station  
employee concerns environment.”***

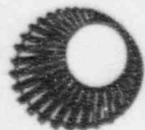


# **Oversight Panel Responsibilities**

- **Reviews conduct of ECP Program**
- **Identifies organizational “hotspots”**
  - **reviews workplace for “chilling effect”**
  - **assists in identification of harassment, discrimination, intimidation and retaliation**
- **Reviews employee concern cases**
  - **of individuals who may have been terminated while involved in protected activity**
- **Evaluates concerned individual’s requests for third-party review**

# Panel Implementation Activities

- **Initial Actions - complete by 5/1/97**
  - develop and implement Panel Charter
  - establishing protocols
  - determine time commitment
- **Ongoing Activities**
  - minimum five members present
  - consensus approach
  - voting as required



# Oversight Panel Staffing

- Solicit interested individuals
  - approx. 100 individuals expressed interest
- Establish formal selection criteria
- Assess candidates for interviews
- Interview and select panel members
- Communicate panel selection



# Oversight Panel Composition

- Three non-exempt employees
- Two non-supervisory, exempt employees
- Two management employees (*one being a first-line supervisor*)
- Two outside members



# ITPOP\* Status

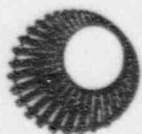
- Answered written questions NRC had on Little Harbor Consultants (LHC)
- LHC team members have been interviewed by the NRC (*by telephone*)
- Exemptions requested for Ms. Garde and Dr. Wood
- One LHC team member has withdrawn for business reasons
- Awaiting decision on LHC by NRC

\* *Independent Third-Party Oversight Program  
(formerly IOTEC)*

# **Concluding Remarks**

**Buzz Carns**

***Senior Vice President &  
Chief Nuclear Officer - Millstone***



**Northeast  
Utilities System**

***Restart Assessment  
Panel Meeting 3/18/97***

# **Nuclear Safety Philosophy**

- **Profound Respect for the Reactor Core**
- **Proactively Prevent Events by Maintaining Defense-in-Depth**
- **Conservative Decision Making**
- **Management Commitment to High Standards**

