

MAR 24 1992

*Official
copy*

Docket No. 50-261
License No. DPR-23

Carolina Power and Light Company
ATTN: Mr. R. A. Watson
Senior Vice President
Nuclear Generation
P. O. Box 1551
Raleigh, NC 27602

Gentlemen:

SUBJECT: MEETING SUMMARY - H. B. ROBINSON

This refers to the meeting conducted at your request in the Region II Office on March 11, 1992. The purpose of the meeting was for you to present a self-assessment of the H. B. Robinson facility. A list of attendees and a copy of your handout are enclosed.

It is our opinion that this meeting was beneficial in that it provided a better understanding of your established goals, as well as the actions you have taken with respect to the weaknesses addressed in the last SALP report.

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

Should you have any questions concerning this matter, please contact us.

Sincerely,

Original signed by:
Jon R. Johnson/for
Luis A. Reyes, Director
Division of Reactor Projects

Enclosures: *see reports*
1. List of Attendees
2. Licensee Handout

cc w/encls:
C. R. Dietz, Vice President
Robinson Nuclear Project Department
H. B. Robinson Steam Electric Plant
P. O. Box 790
Hartsville, SC 29550

(cc w/encls cont'd - See page 2)

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P PDR

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MAR 24 1992

Carolina Power and Light Company

2

(cc w/encls cont'd)
R. H. Chambers, Plant General Manager
H. B. Robinson Steam Electric Plant
P. O. Box 790
Hartsville, SC 29550

Heyward G. Shealy, Chief
Bureau of Radiological Health
Dept. of Health and Environmental
Control
2600 Bull Street
Columbia, SC 29201

Dayne H. Brown, Director
Division of Radiation Protection
N. C. Department of Environment,
Health & Natural Resources
P. O. Box 27687
Raleigh, NC 27611-7687

McCuen Morrell, Chairman
Darlington County Board of Supervisors
County Courthouse
Darlington, SC 29535

H. Ray Starling
Manager - Legal Department
Carolina Power and Light Co.
P. O. Box 1551
Raleigh, NC 27602

H. A. Cole
Special Deputy Attorney General
State of North Carolina
P. O. Box 629
Raleigh, NC 27602

Robert Gruber
Executive Director
Public Staff - NCUC
P. O. Box 29520
Raleigh, NC 27626-0520

J. D. Kloosterman, Director
Regulatory Compliance
H. B. Robinson Steam
Electric Plant
P. O. Box 790
Hartsville, SC 29550

bcc w/encls: (See page 3)

Carolina Power and Light Company

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MAR 24 1992

bcc w/encls:
J. Johnson, RII
H. Christensen, RII
R. Lo, NRR
Document Control Desk

NRC Resident Inspector
U.S. Nuclear Regulatory Commission
Route 5, Box 413
Hartsville, SC 29550

RII:DRP

MG
MGlasman:tj
03/18/92

RII:DRP

H
HChristensen
03/18/92

RII:DRP

D
DVerrelli
03/18/92

RII:DRP

J
J. Johnson
03/27/92

ENCLOSURE 1

LIST OF ATTENDEES

Carolina Power and Light

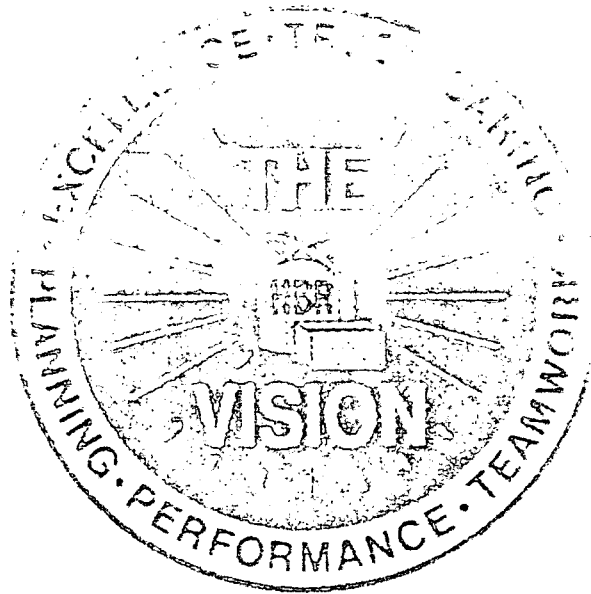
C. R. Dietz, Vice President, Robinson Nuclear Project
R. H. Chambers, Plant General Manager, Robinson
J. M. Curley, Nuclear Engineering Department
A. M. Lucas, Manager, Nuclear Engineering Department
R. L. Barnett, Manager, Outages and Modifications
J. A. Dobbs, Section Manager, Nuclear Assessment Department
R. W. Prunty, Jr., Manager, Nuclear Licensing, Robinson

Nuclear Regulatory Commission

L. A. Reyes, Director, Division of Reactor Projects (DRP), RII
J. R. Johnson, Deputy Director, DRP, RII
J. P. Stohr, Director, Division of Radiation Safety and Safeguards, (DRSS) RII
E. W. Merschhoff, Deputy Director, Division of Reactor Safety, (DRS) RII
E. G. Adensam, Director, Project Directorate II-1, Office of Nuclear Reactor
Regulation (NRR)
D. M. Verrelli, Chief, DRP, Branch 1, RII
R. Lo, Project Manager, NRR
H. O. Christensen, Chief, DRP, Section 1A, RII
F. Jape, Chief, Testing Programs Section, DRS, RII
R. B. Shortridge, Senior Radiation Specialist, DRSS, RII
G. R. Wiseman, Reactor Inspector, DRS, RII
J. L. Shackelford, Reactor Engineer, DRS, RII
R. P. Carrion, Radiation Specialist, DRSS, RII
M. M. Glasman, Project Engineer, DRP, RII
R. E. Carroll, Project Engineer, DRP, RII

ENCLOSURE 2

CAROLINA POWER AND LIGHT COMPANY



ROBINSON NUCLEAR PROJECT

NRC MANAGEMENT MEETING
ATLANTA, GEORGIA

MARCH 11, 1992

INTRODUCTION

OBJECTIVES

- **To Provide A Forum for Maximum Exchange of Information at Management Level Necessary to Effectively Assess and Monitor Activities of H. B. Robinson**
- **To Focus on Those Areas That Represent Most Significant Challenge to Successful Operation of H. B. Robinson**
- **To review the scope of RFO 14 activities and to share the conclusion of our risk assessment relative to the conduct of those activities**
- **To Review Recent Operational Performance at H. B. Robinson, Objectively Assessing Contributive Factors That Have Promoted Success and Those That Have Impeded Progress**

AGENDA

- | | | |
|-------|--|-------------------------------|
| I. | INTRODUCTION | C. R. DIETZ |
| II. | MANAGEMENT ISSUES AND CONCERNS | <u>C. R. DIETZ</u> |
| III. | OUTAGE PERFORMANCE | R. L. BARNETT |
| IV. | NUCLEAR ENGINEERING DEPARTMENT
SELF ASSESSMENT/IMPROVEMENTS | J. M. CURLEY |
| V. | NUCLEAR ASSESSMENT
ROBINSON NUCLEAR PROJECT | J. A. DOBBS |
| VI. | MANAGEMENT ACTIONS AND INITIATIVES | C. R. DIETZ
R. H. CHAMBERS |
| VII. | PERFORMANCE SUMMARY | R. H. CHAMBERS |
| VIII. | CONCLUSION | C. R. DIETZ |

SECTION II

MANAGEMENT ISSUES AND CONCERNS

C. R. DIETZ

- **Personnel Issues**
 - **Turnover**
 - **Resource Availability & Application**
 - **Morale**
 - **Industrial Safety**

- **Equipment Performance**
 - **Plant Aging**
 - **Vendor Availability**
 - **Deterministic Ability**

- **Work Process Issues**
 - **Work Backlog**
 - **Corrective Action Program**
 - **Work Practices**
 - **Resources**

MANAGEMENT ISSUES AND CONCERNS

PERSONNEL ISSUES

- **TURNOVER**
 - **Improvement**

- **RESOURCE AVAILABILITY & APPLICATION**
 - **CP&L Permanent Staff**
 - **Selective Additions**

 - **Contractor Support**
 - **Increasing Trend**

 - **Overtime**
 - **CP&L Staff**

- **MORALE**
 - **Subjective Assessment...Very High**
 - **Community Support**
 - **Confidence to Support Outage**

 - **Conservatively Optimistic**
 - **Reduction in Force Concerns**
 - **More Demand.....Less Discretionary Time**
 - **Benefits of Strategic Planning are Recognized**

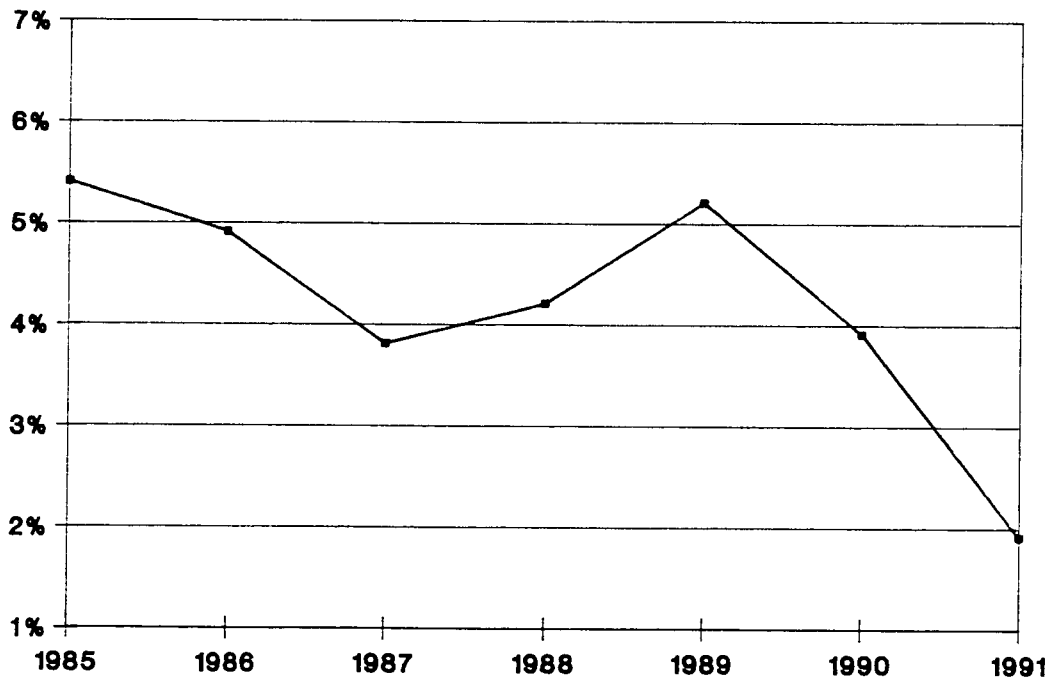
- **Industrial Safety**
 - **Good Performance**

PERSONNEL TURNOVER

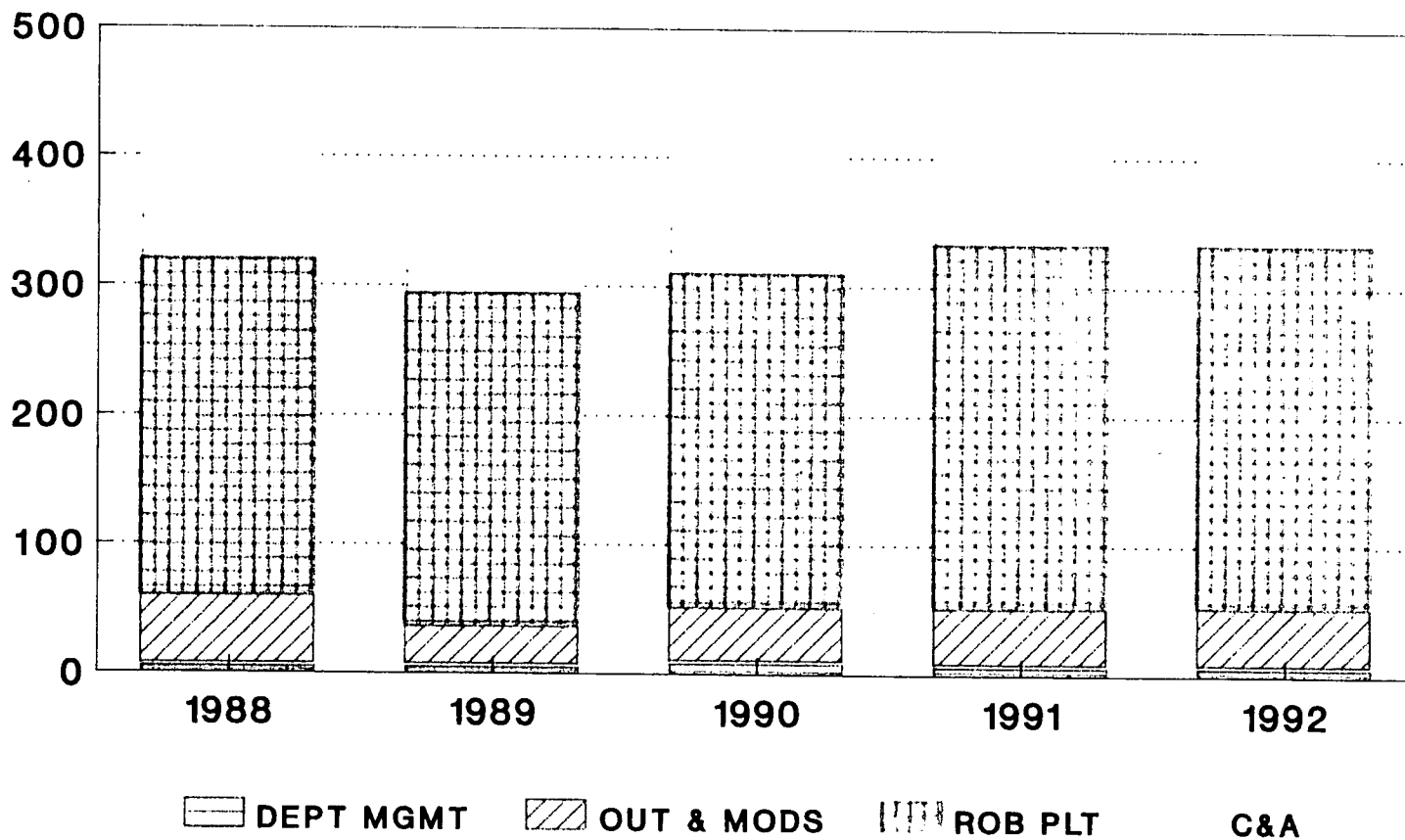
- LOSS OF KEY PERSONNEL

UNIT	KEY POSITIONS	LOSSES	
		INTERNAL	EXTERNAL
Plant Section	General Manager	0	1
Emergency Preparedness	Senior Specialist	0	1
Tech Support	Senior Engineers	1	0
	Project Engineer	1	0
E&RC	RC Technicians	0	2
Operations	Reactor Operators	3	3
Maintenance	I&C Technicians	2	0
	Planner	0	1

- TURNOVER RATE (External)

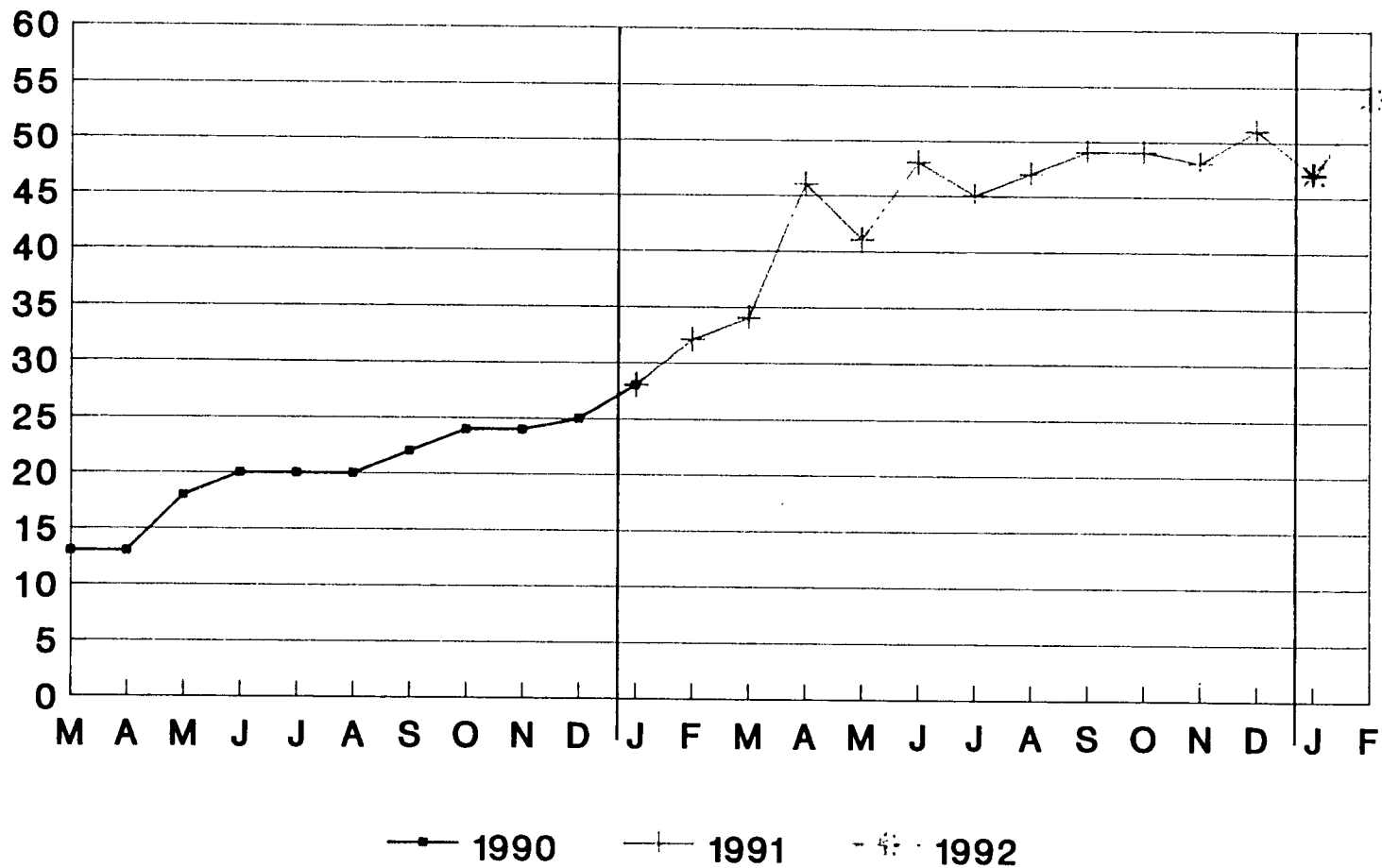


RNPD AUTHORIZED PERSONNEL INVENTORY

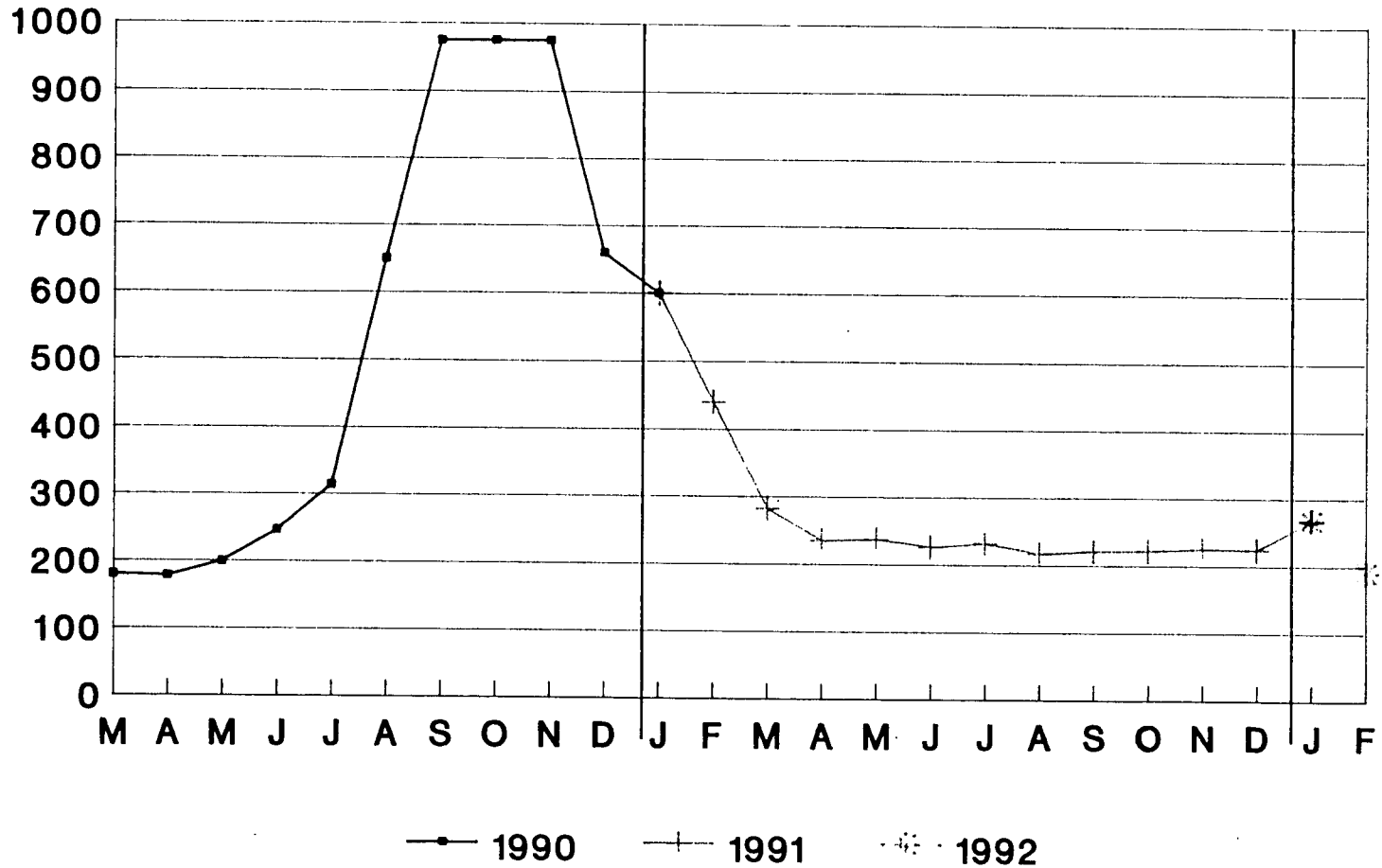


RNPD SECTIONS

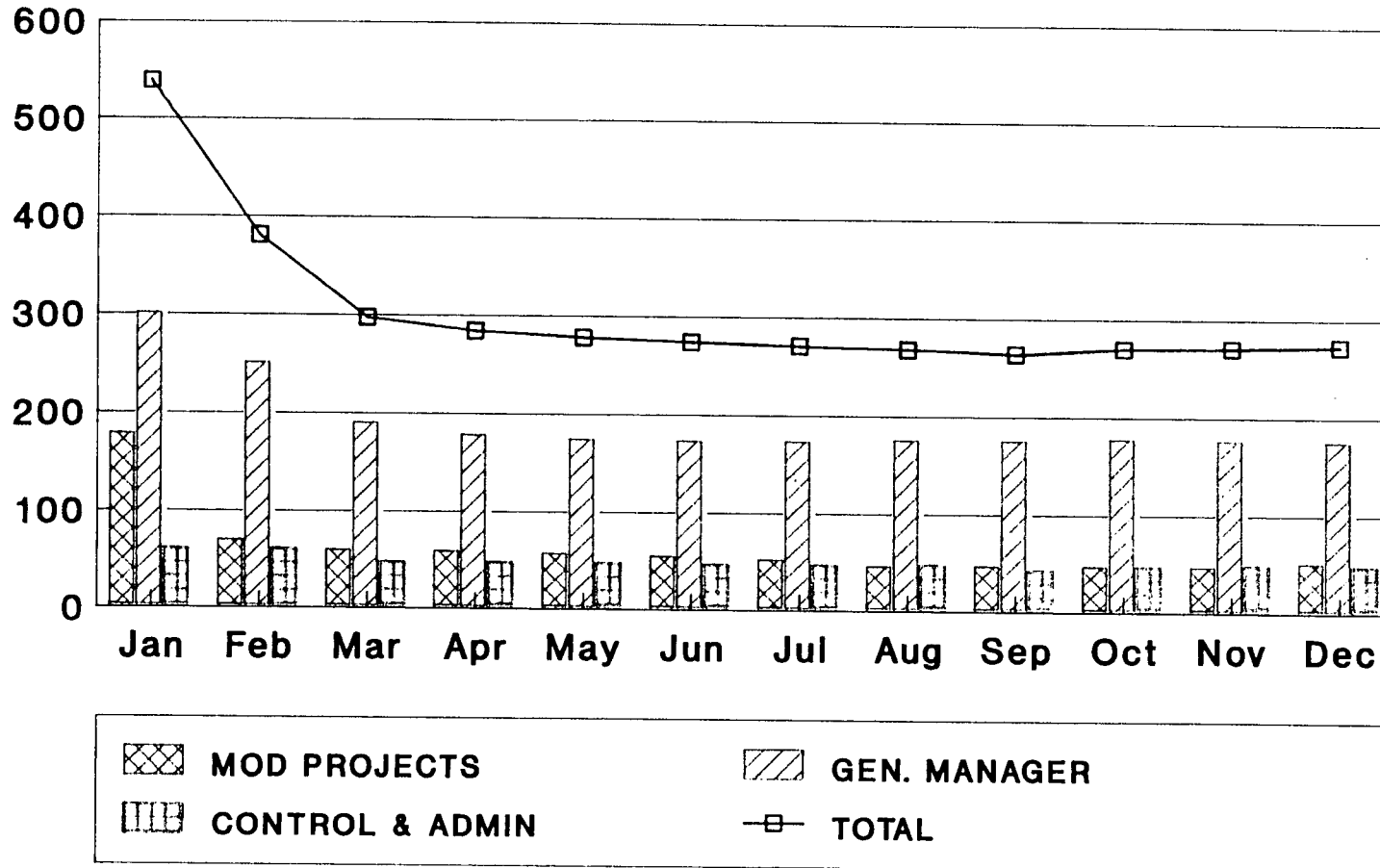
RNPD TECHNICAL CONTRACTORS



RNPD CRAFT & CLERICAL CONTRACTORS

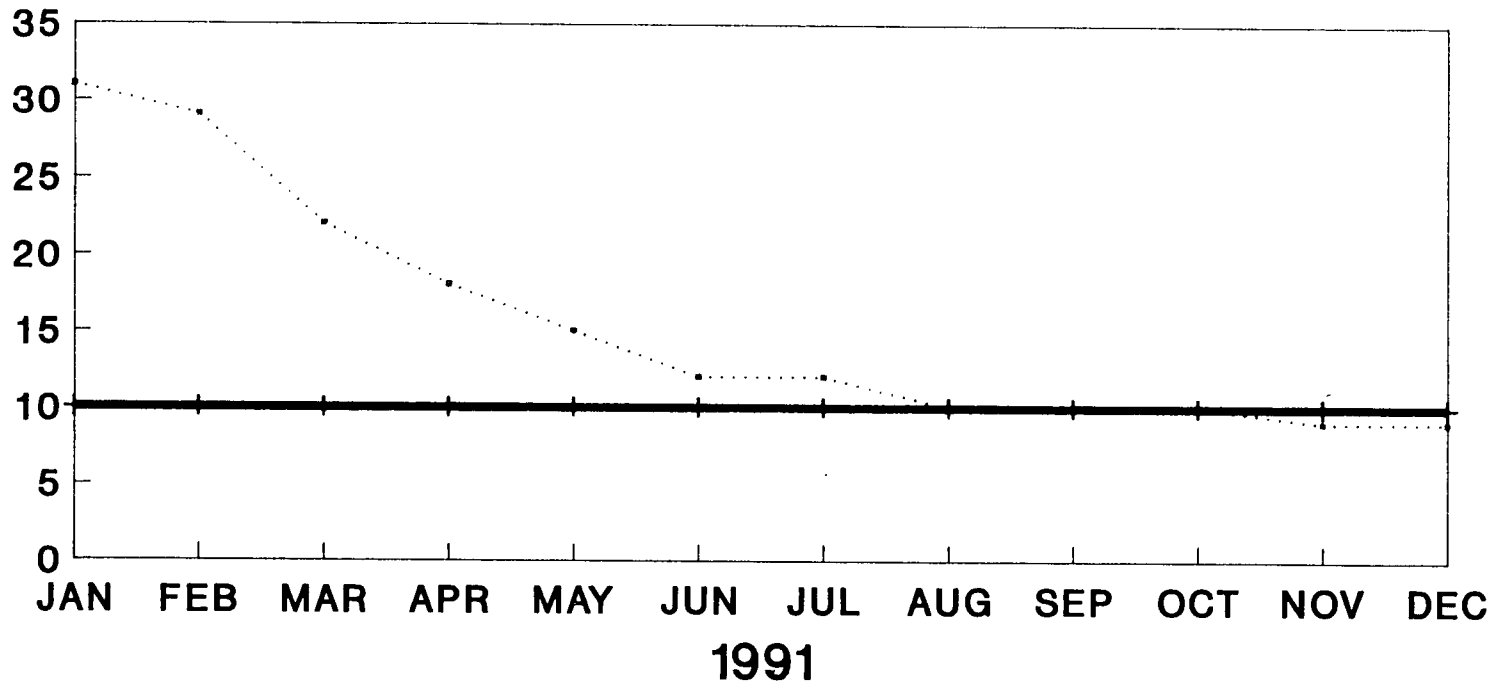


1991 CONTRACTOR PERSONNEL (BY SECTION)



RNPD

OVERTIME AS % OF REGULAR PAID TIME

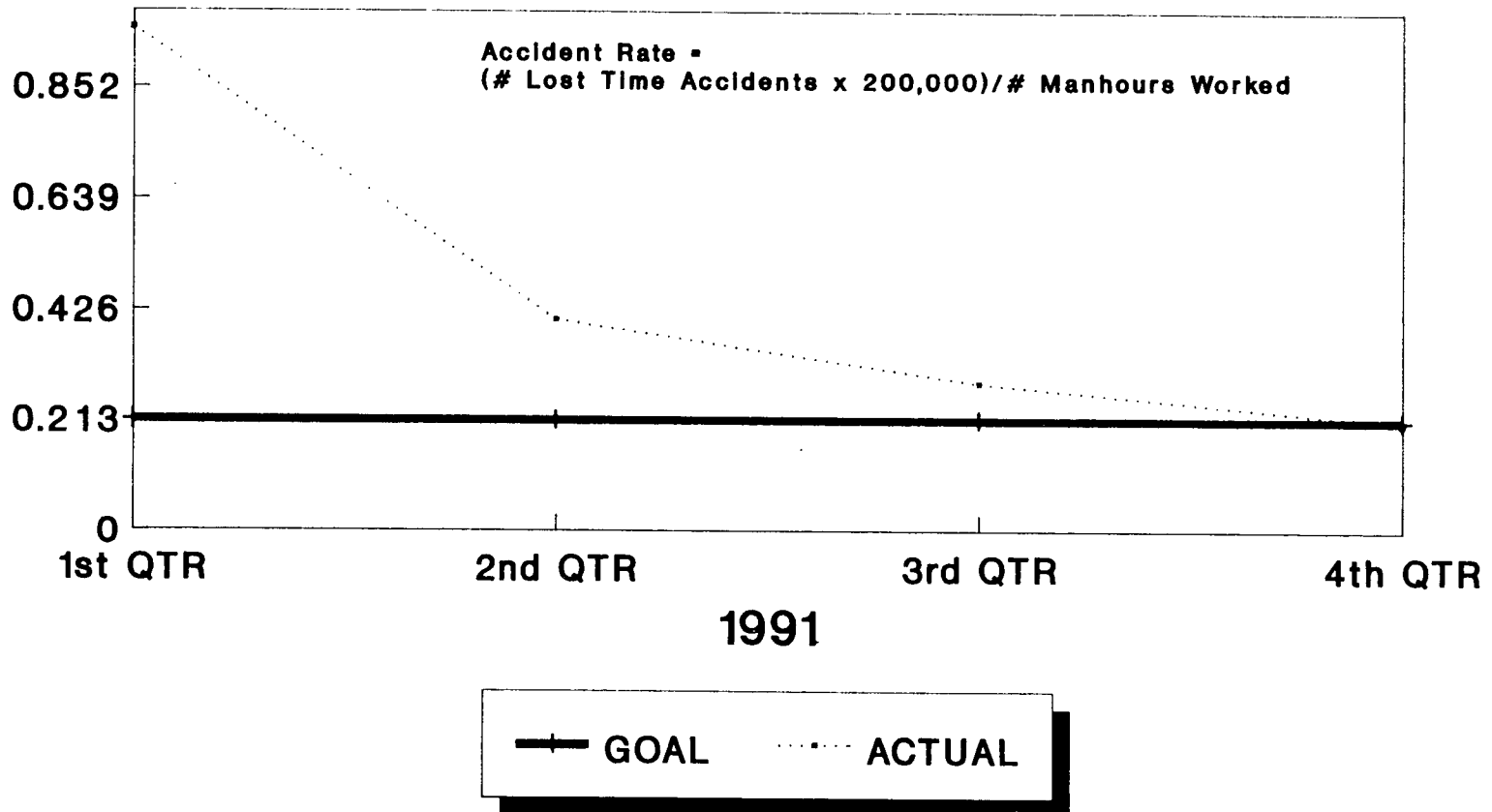


—+— GOAL ACTUAL

BOD:
4.2

RNPD

INDUSTRIAL SAFETY ACCIDENT RATE



Over 1 Million Safe Manhours Worked
Since Last Lost Time Accident (2/91)

MANAGEMENT ISSUES AND CONCERNS

EQUIPMENT PERFORMANCE

- **PLANT AGING**
 - **Continuing Issue**
 - **Condensate Pump Failure**
 - **Through Wall Corrosion Failure**

- **VENDOR AVAILABILITY**
 - **Continued Service**
 - **Security Computer System**
 - **Responsiveness**
 - **SI Pump Casings**

- **DETERMINISTIC ABILITY**
 - **Diagnostics**
 - **MOV Program**
 - **Thermography**
 - **Performance Monitoring**

MANAGEMENT ISSUES AND CONCERNS

WORK PROCESS ISSUES

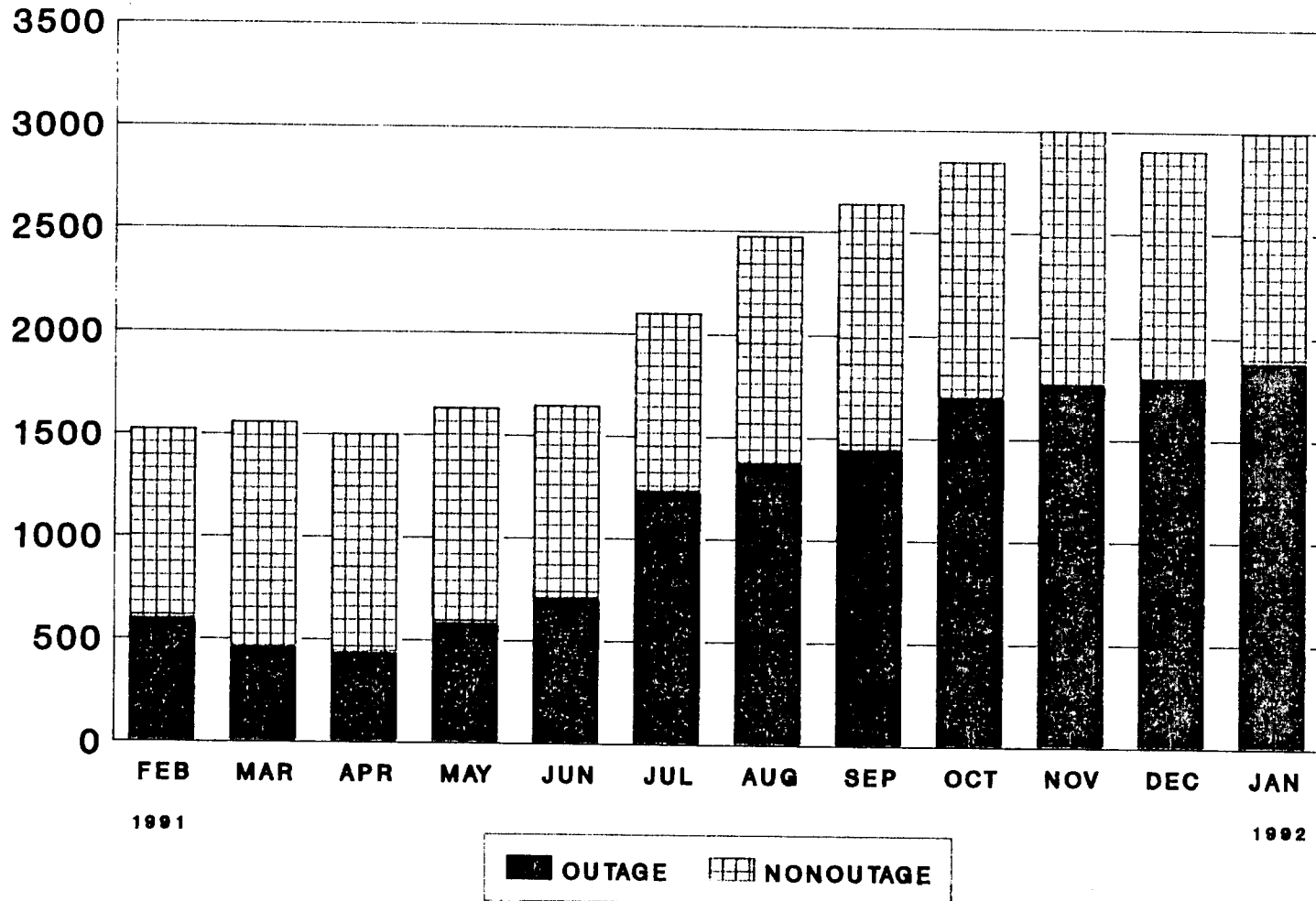
- **WORK BACKLOG**
 - **Maintenance**
 - **Tech Support**
 - **Operations**

- **CORRECTIVE ACTION PROGRAM**
 - **Measures of Effectiveness**
 - **Self-Identified vs. Identified by Others**
 - **Significant vs. Non-Significant**
 - **Corrective Actions Completed**

- **WORK PRACTICES**
 - **ACR Distribution**
 - **Equipment**
 - **Human Performance**
 - **Adherence to Management Standards**
 - **Acceptance of Current Performance Levels**
 - **Receptivity to External Self Assessments**

- **RESOURCES**
 - **Financial**
 - **Support Equipment/Process Challenges**
 - **Personnel**
 - **Adequacy to Address Backlogs and Expectations**
 - **Effectiveness of Management Development**
 - **Effectiveness of Skills Training**

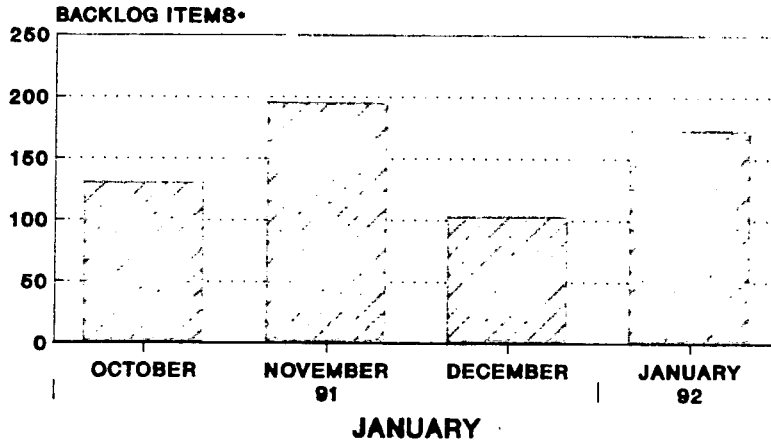
MAINTENANCE BACKLOG



Backlog Consists of WRs (All Priorities) Awaiting Action

WORK BACKLOG

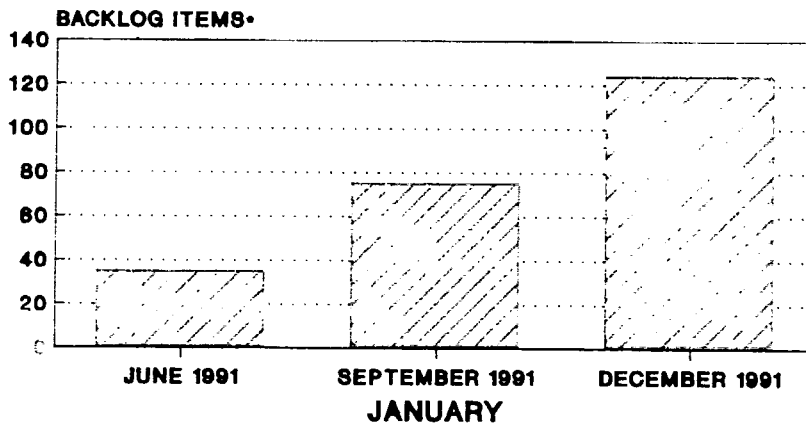
TECH. SUPPORT BACKLOG ITEMS



- Any work (priority 4 or less) that permanent staff is unable to schedule



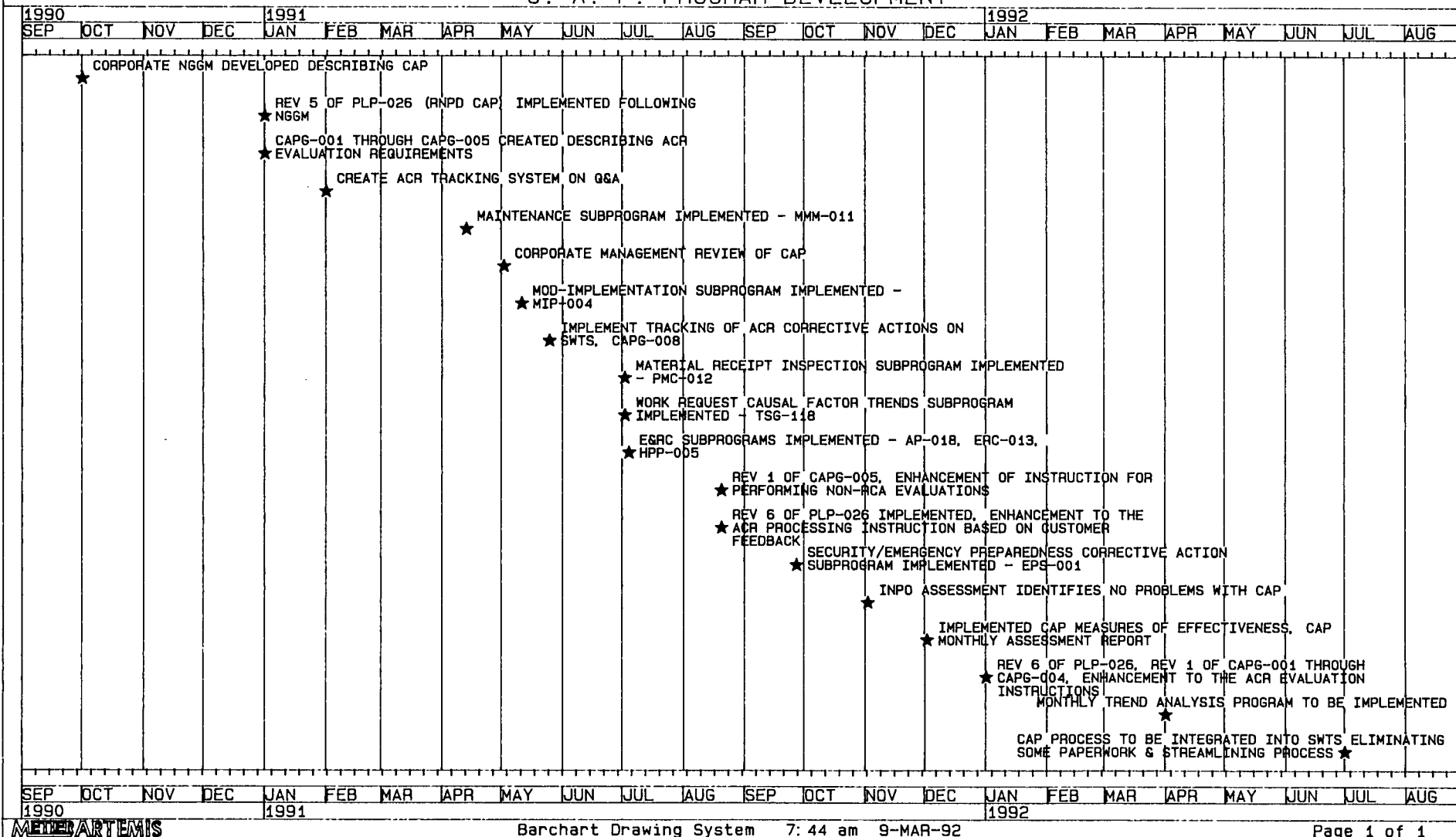
OPERATIONS BIENNIAL PROCEDURE REVIEW PROGRAM



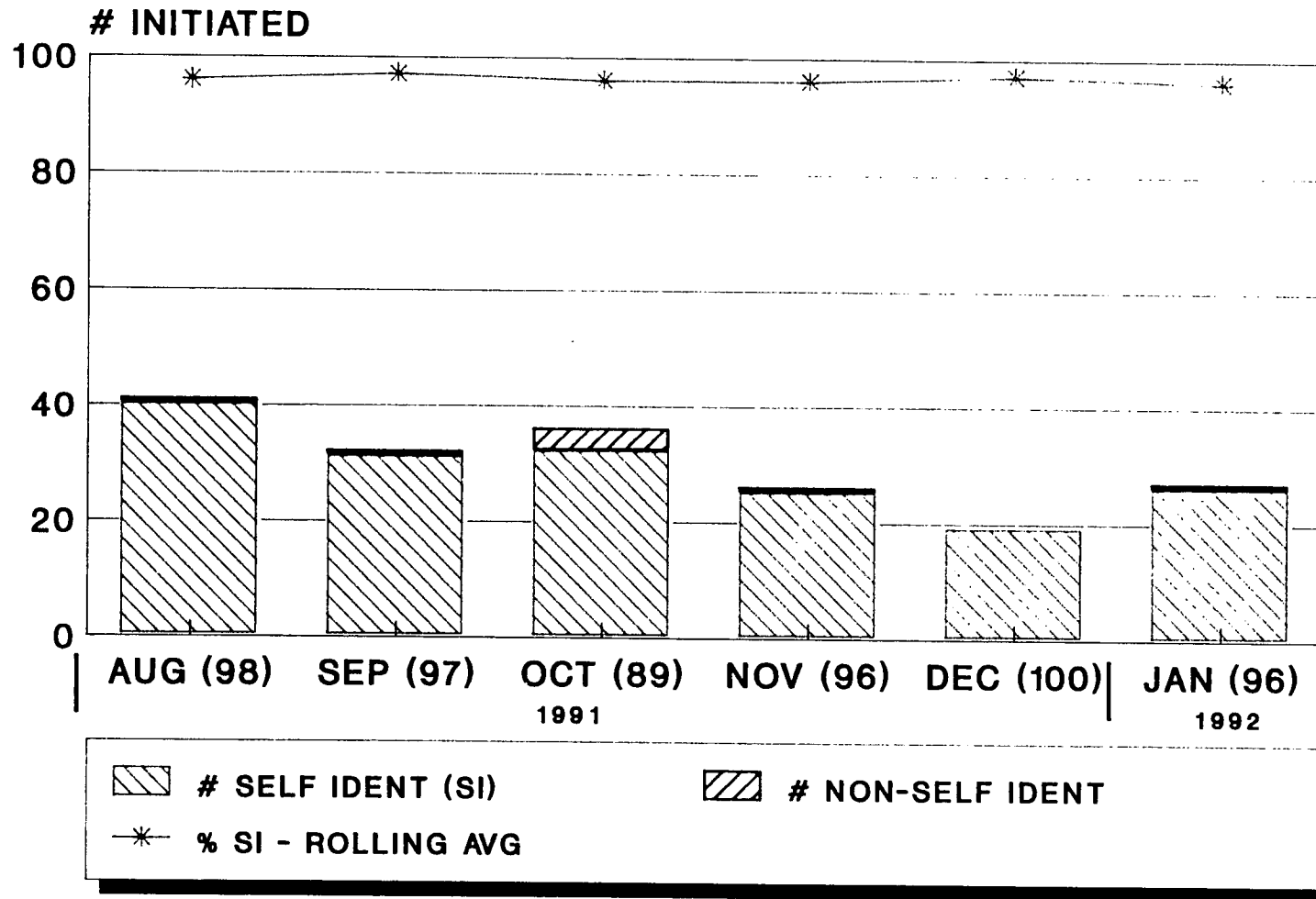
- Number of reviewed procedures with comments which have not been incorporated



C. A. P. PROGRAM DEVELOPMENT

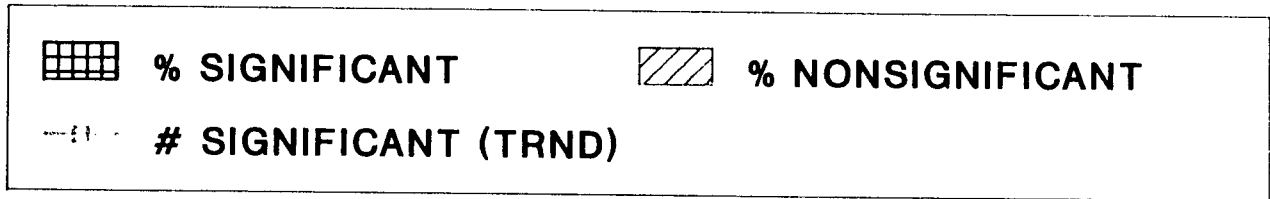
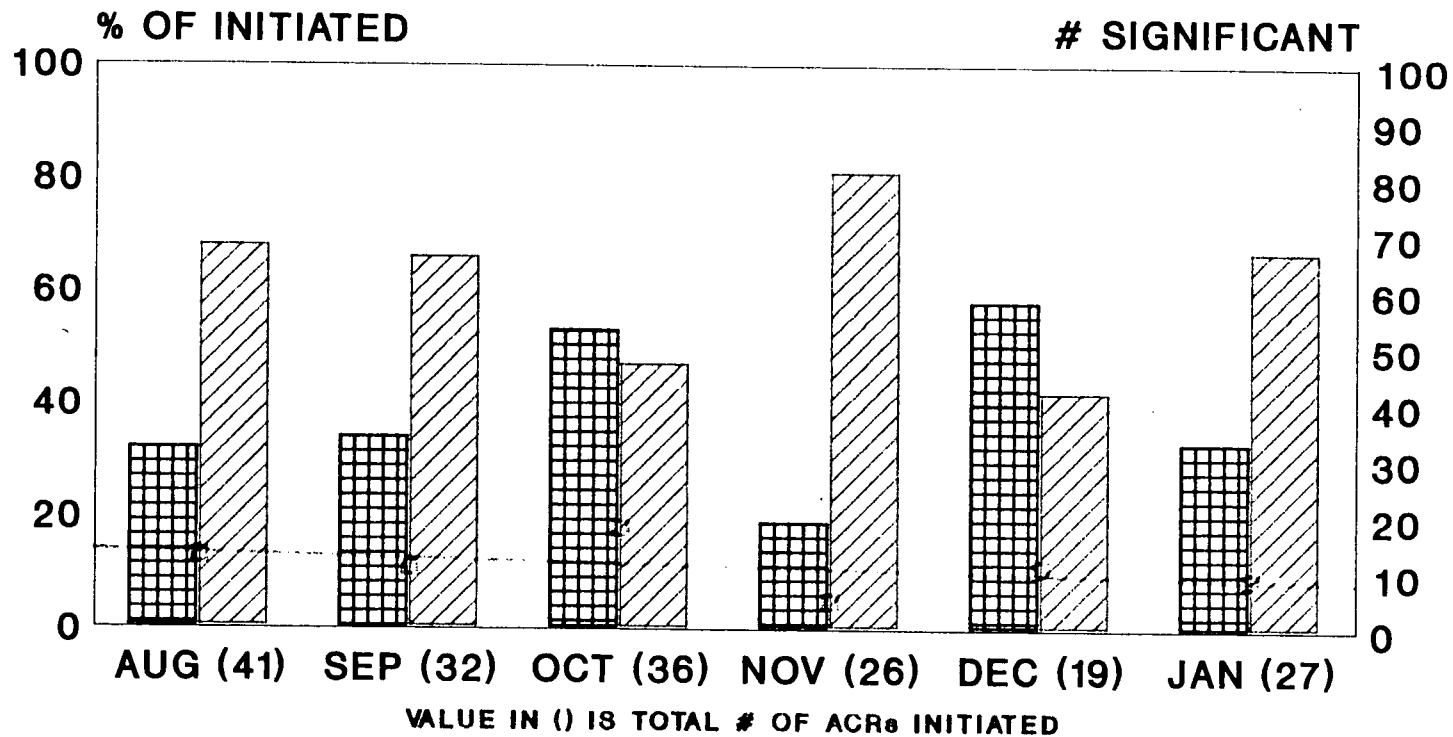


ADVERSE CONDITION REPORTS

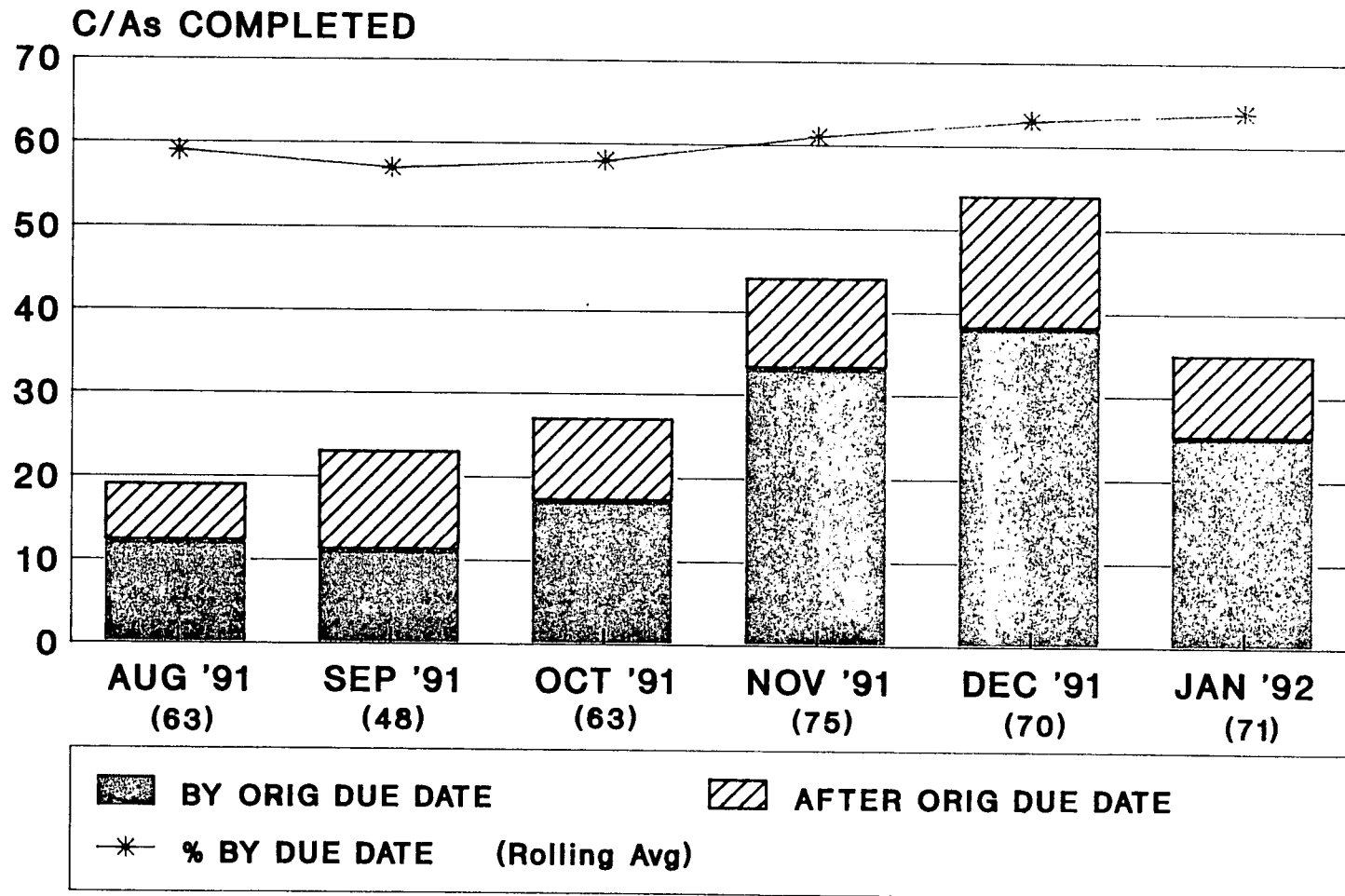


ACRs INITIATED

SIGNIFICANT, NONSIGNIFICANT

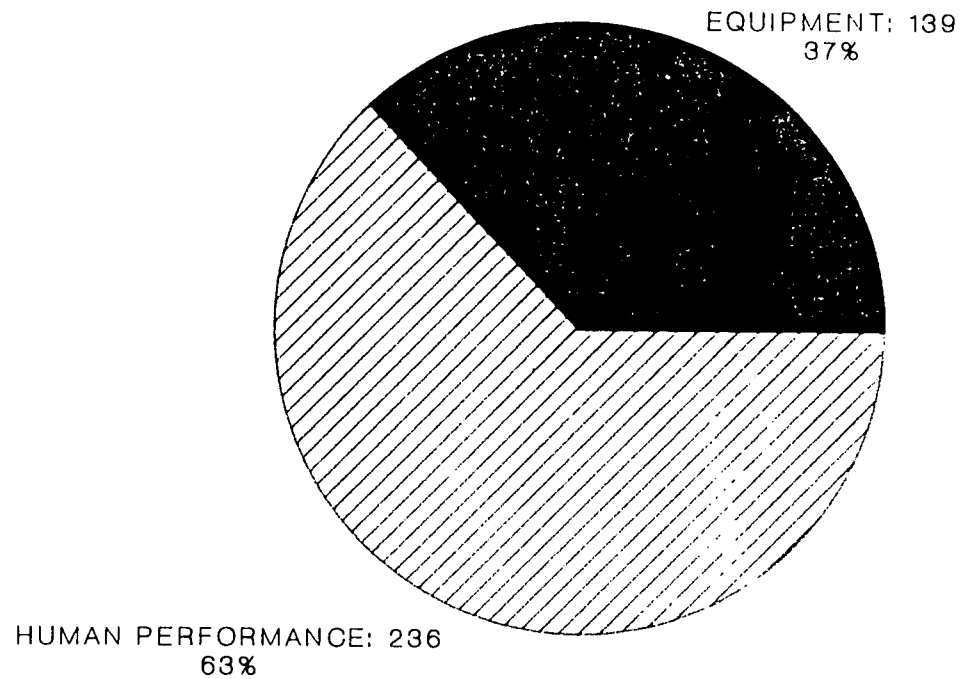


CORRECTIVE ACTIONS COMPLETED BY DUE DATE/WITHOUT EXTENSION



() Indicates % by Original Due Date/No Extensions

EQUIPMENT VS. HUMAN PERFORMANCE
ALL ACR'S ENTERED THRU
01/31/92

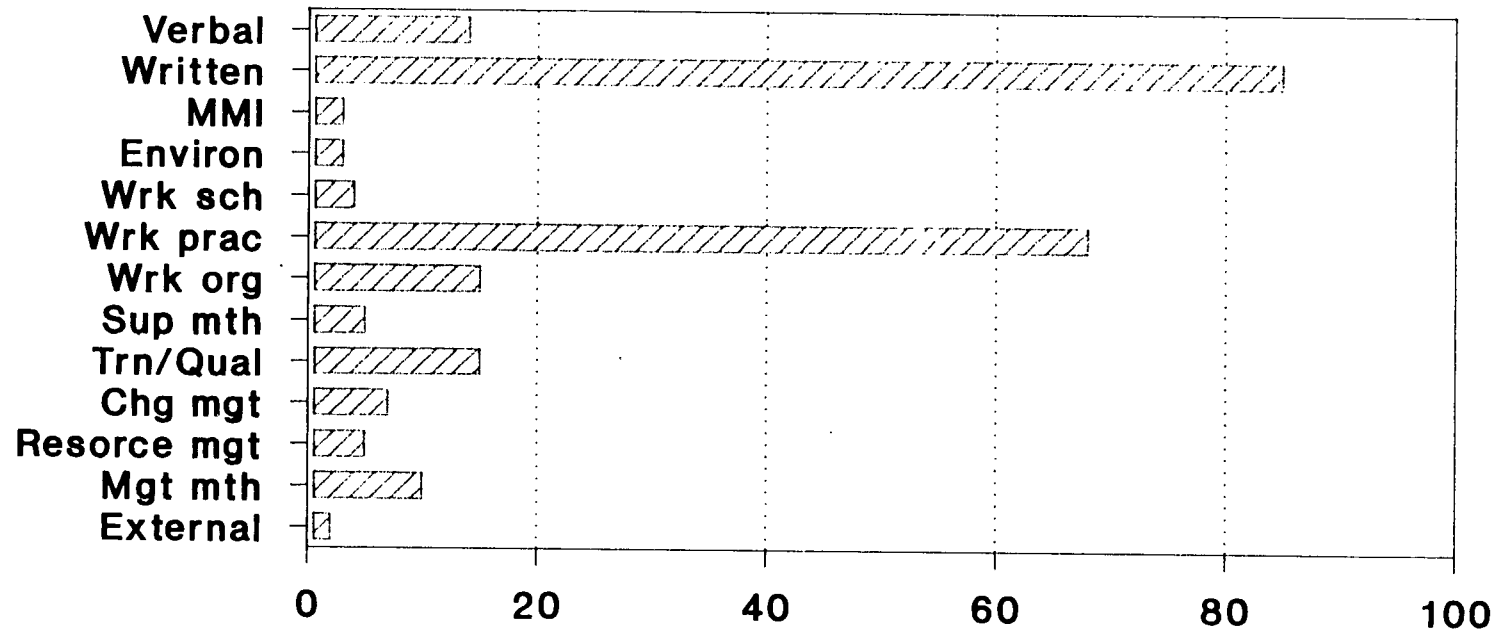


TOT CAUSES = 375, WHICH 94 ARE APP CAUSE
ACR_s ENTERED = 276
ACR BACKLOG = 0

HUMAN PERFORMANCE PROBLEMS vs. CAUSE

TOTAL ACR CAUSES TO DATE

01/31/92



 TOTAL

TOTAL HUMAN = 236, APPARENT CAUSE = 56
ACR ENTERED = 276, ACR BACKLOG = 0

MMI - MAN/MACHINE INTERFACE

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SECTION III

OUTAGE PERFORMANCE

R. L. BARNETT

- RFO 14 STATUS
- RFO 15 SCOPE
- OUTAGE RISK MANAGEMENT

REFUELING OUTAGE 14

- **INITIATIVES/LESSONS LEARNED**
 - **PERMANENT OUTAGE ORGANIZATION**
 - **SHIFT OUTAGE MANAGERS (SRO QUALIFIED)**
 - **TECHNICAL SUPPORT AND MAINTENANCE PERSONNEL**

 - **MODIFICATION RELEASE DATES**
 - **70% APPROVED 6 MONTHS PRIOR TO OUTAGE**
 - **ORIGINAL MODS IN DETAIL SCHEDULE IN DECEMBER**

 - **SCOPE CONTROL**
 - **SYSTEM ENGINEER OUTAGE PLAN**
 - **MANAGEMENT APPROVAL OF SCOPE ADDITIONS**

 - **MATERIAL CONTROL ORGANIZATION**
 - **SINGLE POINT OF CONTACT**
 - **APPROXIMATELY 80 PARTS WITH DELIVERY DATES PAST OUTAGE START DATE**

 - **SCHEDULE DEVELOPMENT**
 - **DETAILED SCHEDULE ISSUED IN NOVEMBER**
 - **REVISION 6**

 - **PROJECT MANAGEMENT**
 - **EACH MAJOR PROJECT HAS PROJECT MANAGER**
 - **MAJOR PROJECT HAS DEDICATED OPERATORS**

 - **CONTRACTOR QUALIFICATIONS**

REFUELING OUTAGE 14 (Continued)

- SCHEDULE
 - 70 DAYS
- MODIFICATIONS
 - RHR MINI-FLOW RECIRCULATION
 - ELIMINATES OPERATOR ACTION
 - SERVICE WATER PIPE REPLACEMENT
 - REPLACES NON ALX6N PIPING
 - AUXILIARY FEEDWATER FLOW CONTROL VALVE
 - REGAINS AFW MARGIN
 - CONTROL ROOM ANNUNCIATOR UPGRADE
 - CORRECTS HUMAN FACTORS DEFICIENCIES
 - PRESSURIZER SURGE LINE TEMPERATURE INSTRUMENTATION
 - VALIDATES CALCULATIONS ON THERMAL STRATIFICATION
- PROJECTS
 - CONTAINMENT STRUCTURAL INTEGRITY TEST/INTEGRATED LEAK RATE TEST
 - SERVICE WATER PIPE INSPECTION
 - CHECK VALVE INSPECTIONS
 - 69 CHECK VALVES
 - S/G GIRTH WELD INSPECTIONS
 - CCW VALVE REPAIRS

REFUELING OUTAGE 15

SCOPE

SERVICE WATER PENETRATION REPLACEMENT

REPLACEMENT OF "B" BATTERY

CONTROL ROOM UPGRADE

OUTAGE RISK MANAGEMENT

DEVELOPMENT

- **Developed Outage Risk Management Scheduling Guidelines (N + 1 Criteria)**
 - **Electrical Power**
 - **Fuel Cooling**
 - **RCS Makeup Capability**
 - **RCS Pressure Control**
 - **Containment Vessel Integrity**
 - **Reactor Core And Spent Fuel Pit Reactivity Control**
- **Schedule Reviews**
- **Initiatives**
 - **System Window Document**
 - **Reasons for Each System Window**
 - **Operator Training**
 - **Plant Status Forms**
 - **Indicates What Systems Cannot Be Worked**
 - **Special Procedures**
 - **Temporary Spent Fuel Pit Cooling**
 - **Battery Charger Power**
 - **Emergency Diesel Cooling**
 - **Independent Reviews**
 - **Operators**
 - **Harris/Brunswick/Corporate Team**

OUTAGE RISK MANAGEMENT (Continued)

DEVELOPMENT

- **Future**
 - **Contingency Planning**
 - **Shutdown Procedures**
 - **Outage Schedule Changes**

CONCLUSIONS

- **CP&L Has Been Proactive In Outage Risk Management**

H. B. ROBINSON SHUTDOWN SAFETY FUNCTION STATUS

CURRENT PLANT CONDITIONS							
RCS TEMP:	RCS PRESS:	PZR LVL:	RX VESSEL LVL:	UNIT STATUS:	DATE:		
					TIME:		
CORE STATUS	ELECTRICAL STATUS	SAFETY SYSTEM AVAILABLE		PROTECTED TRAIN =			
				PROTECTED TRAIN EXCEPTIONS			
CONTAINMENT STATUS							
	BORATION FLOW PATH	RCS COOLING	RCS MAKEUP	SFP COOLING	SFP MAKEUP	ELECTRICAL PWR SOURCES	REACTIVITY CONTROL
CURRENT REQUIRED LINEUP OR FLOWPATH							RCS BORON
							REQ'D
							ACTUAL
ALTERNATE LINEUP OR FLOWPATH AVAILABLE (CONTINGENCY)							NI'S IN SERVICE
							SFP BORON
							REQ'D
							ACTUAL
UPCOMING MAJOR WORK ACTIVITIES WITHIN 24 HRS							

**H. B. ROBINSON SAFETY SYSTEMS
SHUTDOWN FUNCTION STATUS**

CURRENT PLANT CONDITIONS		
DATE:	TIME:	UNIT STATUS:
PROTECTED TRAIN		PROTECTED TRAIN EXCEPTIONS
RCS TEMP:		RCS PRESS:
PZR LVL:		RX VESSEL LVL:
SAFETY SYSTEM AVAIL.		ELECTRICAL DIST. STATUS
CORE STATUS		CONTAINMENT STATUS
RCS COOLING		RCS MAKEUP FLOW PATH
SFP COOLING		SFP MAKEUP FLOW PATH
REACTIVITY CONTROL		BORATION FLOW PATH
RCS BORON		
SFP BORON		
NI'S IN SERVICE		
UPCOMING MAJOR WORK ACTIVITIES WITHIN 24 HOURS		

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SECTION IV

**NUCLEAR ENGINEERING DEPARTMENT
SELF ASSESSMENT/IMPROVEMENTS**

J. M. CURLEY

- **OWNERSHIP**
- **QUALITY**
- **STAFFING**
- **TRAINING SUMMARY**
- **CONTINUING PROGRESS**
- **CORRECTIVE ACTION PROGRAM**
- **FUTURE FOCUS**

NED SELF ASSESSMENT/IMPROVEMENTS

During the past year, NED has initiated or reinforced the following actions as a result of self identified problems and NRC concerns:

- **Ownership**

- Mod engineer owns the design from cradle to grave

- **Quality**

- Design verification procedure was strengthened
- Qualification of personnel
- Section manager review of modifications
- Department goals to reduce the number of comments and field revisions generated per modification
- Expectation assigned to each first line supervisor to assess review comments and coach employees to reduce errors
- Field revisions being assessed and trended
- Quality supersedes schedule or budget requirements

NED SELF ASSESSMENT/IMPROVEMENTS (Continued)

- Staffing

- Long term goal to decrease reliance on contractors
 - a. Infrastructure positions
 - b. Hiring new college graduates
- All Engineering Support Section Managers are former plant employees
- NED has joined ten system teams
- For Refueling Outage 14, NED Engineers routinely meet with system teams to discuss modification designs.

- Training Summary

- Robinson basic systems being taught in Corporate office
- Real Time Training held quarterly to review topics of current interest
- In 1991, twice the number of manhours spent on training as compared to 1990

NED SELF ASSESSMENT/IMPROVEMENTS (Continued)

- CONTINUING PROGRESS

- All committed design basis documents issued
- Design basis document validations will be complete this year
- Steady progress continues to be made in the electrical calculation area
- Additional design guides in development
- NRC given early notification of potentially undesirable IPE results. Through appropriate actions, results have been improved.
- Procurement Engineering Section established
- NED Onsite Unit is maturing and providing day-to-day support
- NED support of plant's Technical Support Unit continues through RET process
- Frequent visits to site by Corporate NED personnel
- Support for refueling outage 14 while preparing designs for refueling outage 15

NED SELF ASSESSMENT/IMPROVEMENTS (Continued)

● **CORRECTIVE ACTION PROGRAM SUMMARY**

- **The NED Corrective Action Program identified that 64% of all adverse conditions were due to work practices, design or procedures.**

Solution -

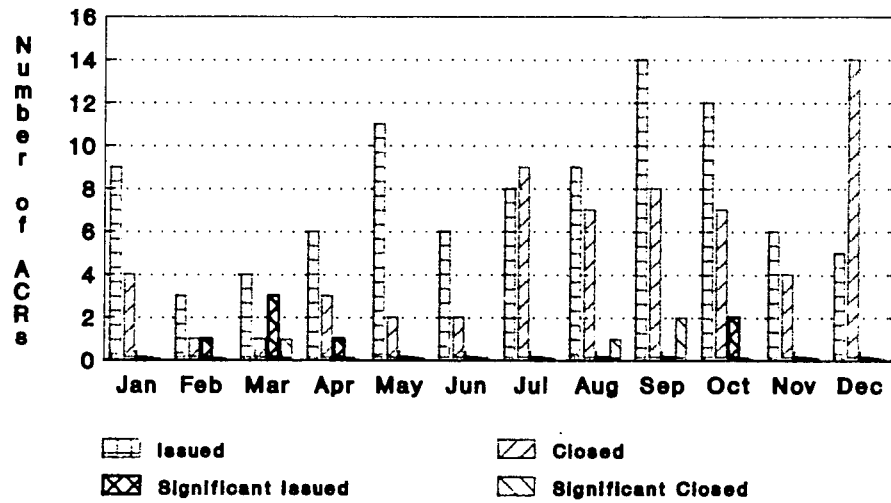
A Project Quality Team has been established to recommend measures to improve the effectiveness of NED procedures.

- **Addressing corrective actions to preclude recurrence on non-significant Adverse Condition Reports was identified as a good practice.**

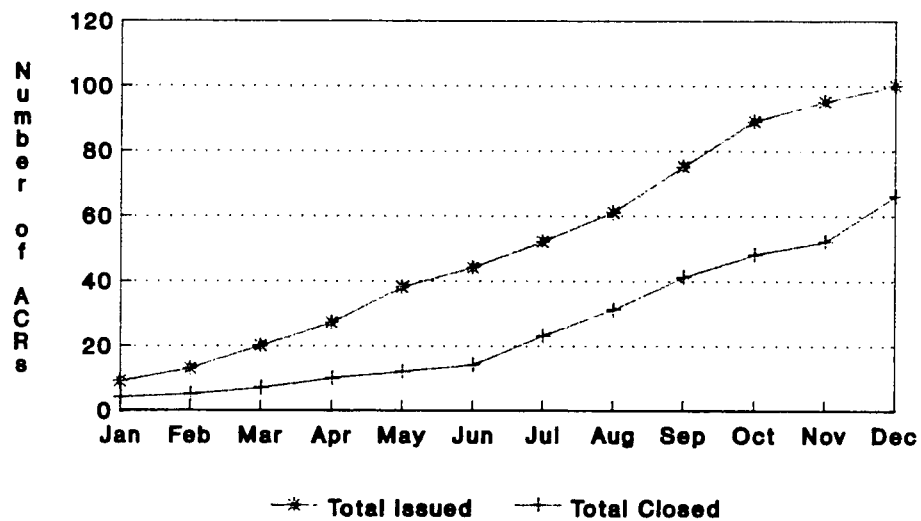
ADVERSE CONDITION REPORTS

1991 NED

MONTHLY



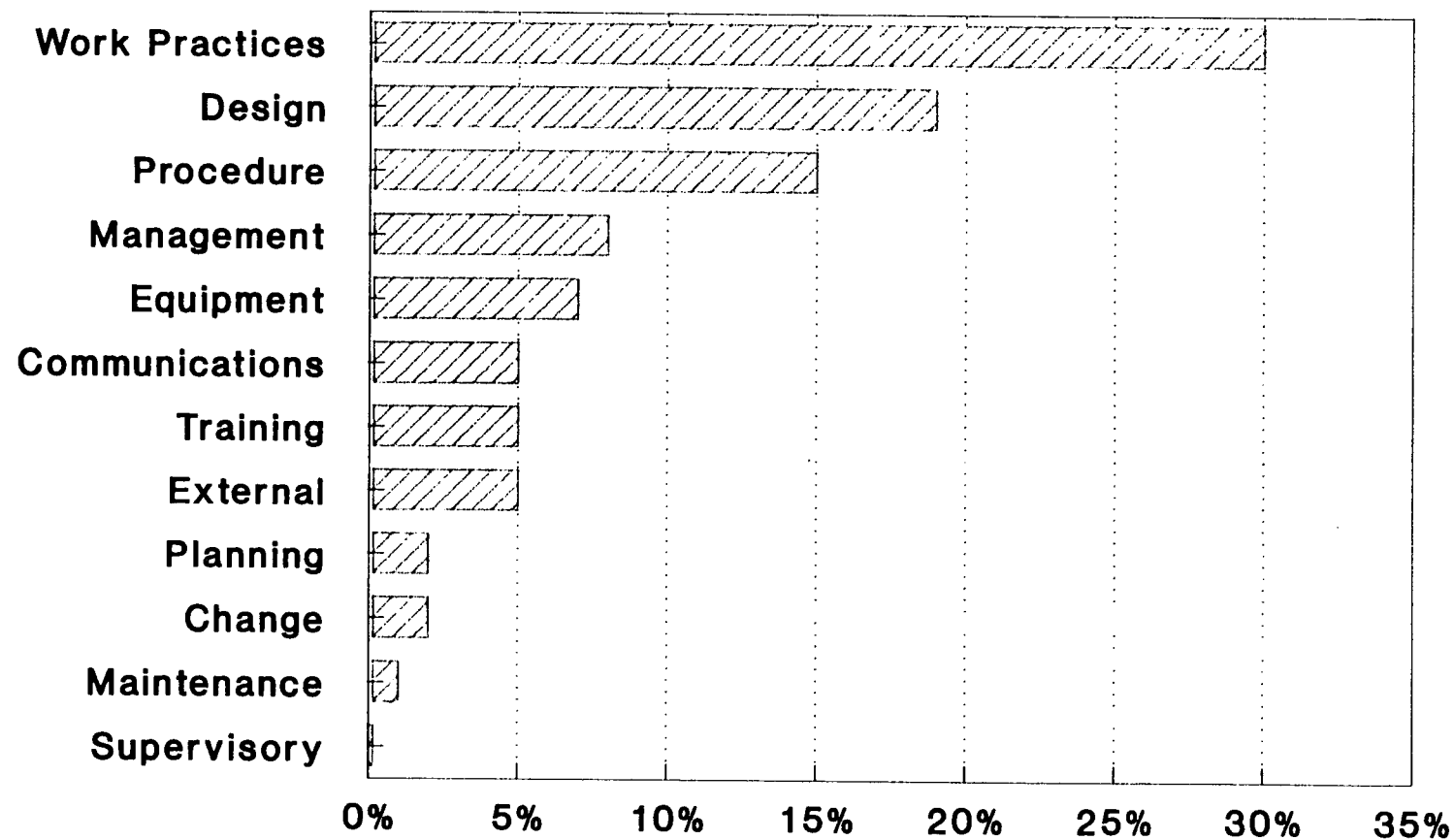
CUMMULATIVE



98% of ACRs Were Self-Identified

ACR CAUSAL FACTORS

1991 NED



Total ACRs - 100

NED SELF ASSESSMENT/IMPROVEMENTS (Continued)

FUTURE FOCUS

- **Continue to improve modification quality**

- **Increase personnel rotations between the plant and Corporate office**

- **Continue providing system training for engineers**

- **Continue to improve communications between NED and Technical Support**

- **Increase communications with Operations and Maintenance for modification activities**

CONTINUAL NED IMPROVEMENTS

	1988/1989	1990	1991	1992
Management Initiatives	<ul style="list-style-type: none"> •CDO-Engineer of Record •CDO-150 FTE's Dedicated to RNP •CDO Specialized Support •Fuels Plant Parameters Document •NED Onsite Unit 	<ul style="list-style-type: none"> •More Formal Walkdowns •Established Guideline on Durations for Mod Design 	<ul style="list-style-type: none"> •Instill Ownership of Vendor Products •Mod Review Checklists •Began Assessing Field Revisions •Mod Overviews Initiated •NED/Fuels Interface Document •Meetings With System Teams to Review Mods •NED Membership on 10 System Teams 	<ul style="list-style-type: none"> •Reinforce Ownership of Vendor Designs •Emphasis on Qualification of personnel •Support RF014 While Developing Mods for RF015 •Assessment of Comments •Emphasis on Rotation of Personnel •Improve Communications between NED and Plant
Tools	<ul style="list-style-type: none"> •6 DBD's Written (4 Validated) •CAD Capability •Started PRA 	<ul style="list-style-type: none"> •5 DBD's Written (4 Validated) •ECCS Single Failure Analysis •9 Design Guides Issued 	<ul style="list-style-type: none"> •3 DBD's Written (4 Validated) •EDG Electrical Calculations •480V Voltage Drop Calcs. •10 Design Guides Issued •Surrogate Video Tour •Fast Transfer Analysis Completed 	<ul style="list-style-type: none"> •2 DBD Validations plus Closeouts •DC Electrical Calculations •EDG Dynamic Analysis •BOP DBD's •Submit PRA •Issue 10 Design Guides
Skills	<ul style="list-style-type: none"> •NCSU Inhouse Civil Training 	<ul style="list-style-type: none"> •Professional Engineer Push •Started Real Time Training •16,000 Hours in Training 	<ul style="list-style-type: none"> •Added 30 Infrastructure Slots •33,000 Hours in Training 	<ul style="list-style-type: none"> •Systems Training •Add 30 Additional Infrastructure Slots

AGENDA

- | | | |
|-------|--|-------------------------------|
| I. | INTRODUCTION | C. R. DIETZ |
| II. | MANAGEMENT ISSUES AND CONCERNS | C. R. DIETZ |
| III. | OUTAGE PERFORMANCE | R. L. BARNETT |
| IV. | NUCLEAR ENGINEERING DEPARTMENT
SELF ASSESSMENT/IMPROVEMENTS | J. M. CURLEY |
| V. | NUCLEAR ASSESSMENT
ROBINSON NUCLEAR PROJECT | <u>J. A. DOBBS</u> |
| VI. | MANAGEMENT ACTIONS AND INITIATIVES | C. R. DIETZ
R. H. CHAMBERS |
| VII. | PERFORMANCE SUMMARY | R. H. CHAMBERS |
| VIII. | CONCLUSION | C. R. DIETZ |

SECTION V

**NUCLEAR ASSESSMENT
ROBINSON NUCLEAR PROJECT**

MISSION

ORGANIZATIONAL RELATIONSHIP

OPERATING ISSUES AND CONCERNS

REFUELING OUTAGE OVERSIGHT PLANS

DEVELOPMENT PLANS

NEAR TERM ASSESSMENTS

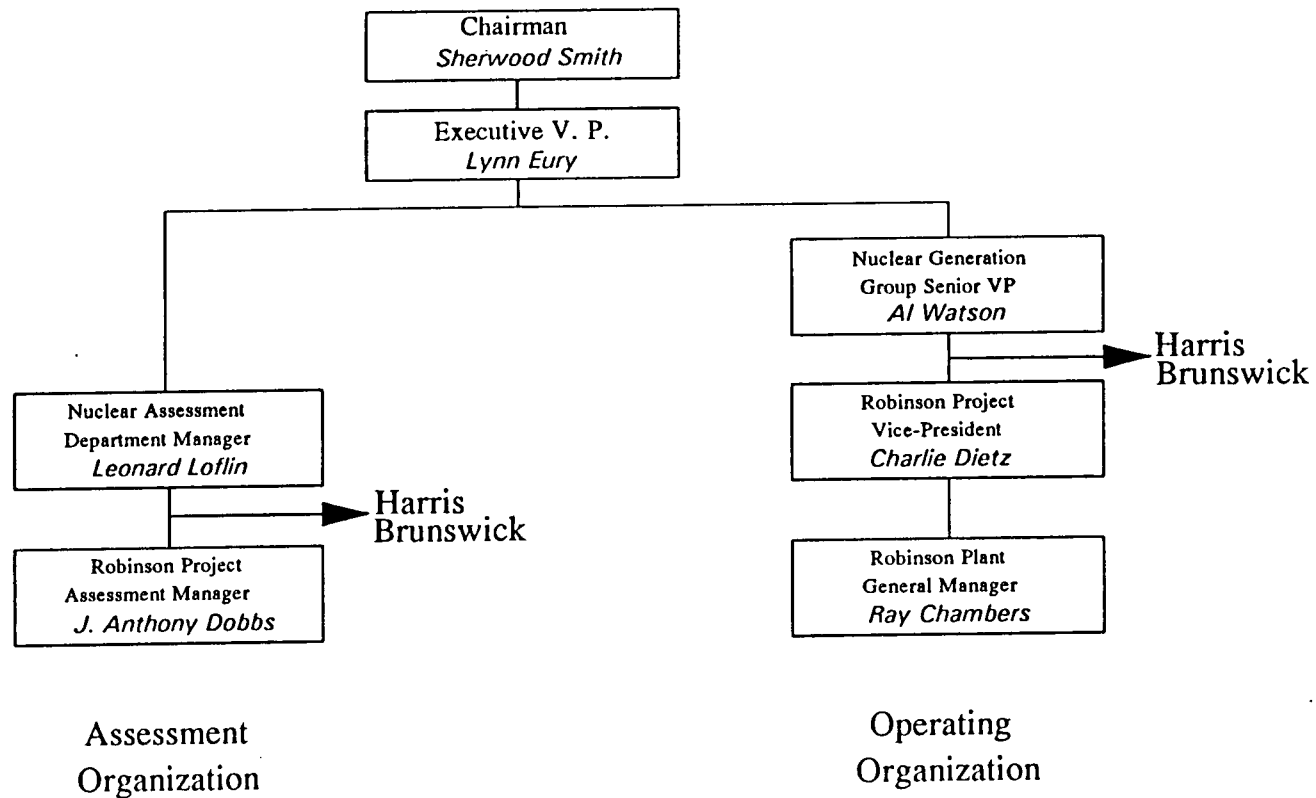
NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT

MISSION: CONTRIBUTE TO THE CONTINUED PERFORMANCE IMPROVEMENTS AT ROBINSON BY IDENTIFYING ISSUES PREVENTING PREMIER PERFORMANCE TO BOTH ROBINSON LINE MANAGEMENT AND TO SENIOR NUCLEAR MANAGEMENT.

SERVE AS SENIOR NUCLEAR MANAGEMENT'S STAFF FOR THE OBJECTIVE OVERSIGHT OF SAFE, HIGH QUALITY, AND RELIABLE NUCLEAR OPERATIONS AT ROBINSON.

Nuclear Assessment Robinson Nuclear Project

Organizational Relationship



3/9/92

NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT

OPERATING ISSUES AND CONCERNS

TEAM ASSESSMENTS:

SITEWIDE ASSESSMENT - AUGUST 91

- **NINE ISSUES IDENTIFIED**
- **EFFECTIVENESS OF ACTIONS TAKEN AND WRITTEN RESPONSES ARE BEING INCLUDED IN FOLLOW-UP ASSESSMENTS.**
- **FOLLOW-UP ASSESSMENT BY ON-SITE NAD PERSONNEL NOTED SIGNIFICANT IMPROVEMENT IN SPENT FUEL SHIPPING ACTIVITIES. (FEBRUARY 92)**

NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT

OPERATING ISSUES AND CONCERNS

TEAM ASSESSMENTS:

ENVIRONMENTAL AND RADIATION CONTROL ASSESSMENT - JANUARY 92

- **FOUR ISSUES IDENTIFIED**
 1. **POOR RADIOLOGICAL WORK PRACTICES**
 2. **RESPIRATORY PROTECTION PROGRAM WEAKNESSES**
 3. **POOR CORRECTIVE ACTION PROGRAM UTILIZATION**
 4. **HIGH STANDARDS ARE NOT IMPLEMENTED FOR SOME ACTIVITIES.**

- **SIMILAR FOLLOW-UP ON ACTIONS TAKEN AND WRITTEN RESPONSES PLANNED FOR LATER THIS YEAR.**

NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT

OPERATING ISSUES AND CONCERNS

ON-SITE NAD ASSESSMENTS:

EMERGENCY PREPAREDNESS - SPECIAL ASSESSMENT - JANUARY 92

PURPOSE - WHY DO WE FAIL TO EFFECTIVELY CORRECT DEFICIENCIES IDENTIFIED IN EP, PRODUCING INCONSISTENT EXERCISE PERFORMANCES?

- **NAD'S ASSESSMENT PARALLELED SELF-ASSESSMENT BY THE LINE ORGANIZATION IN CONJUNCTION WITH NSD.**
- **TWO ISSUES WERE IDENTIFIED, IN SIGNIFICANT DETAIL:**
 1. **INADEQUATE MANAGEMENT ATTENTION AND DIRECTION AND USE OF AN INADEQUATE CORRECTIVE ACTION PROGRAM.**
 2. **INADEQUATE DRILL CRITIQUE PROCESS.**
- **INDEPENDENT REVIEW OF ALL CORRECTIVE ACTIONS TAKEN OR PLANNED - COMPLETE; RESULTS PROVIDED TO ROBINSON.**

NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT

OPERATING ISSUES AND CONCERNS

ON-SITE NAD ASSESSMENTS:

MEASURING AND TEST EQUIPMENT - MARCH 92

PURPOSE - DETERMINE THE EFFECTIVENESS OF THE ROBINSON M&TE PROGRAM TO CALIBRATE AND CONTROL EQUIPMENT TO ENSURE ACCURACY AND TRACEABILITY.

- **TWO ISSUES WERE IDENTIFIED:**
 1. **ROBINSON HAS A NON-SITEWIDE M&TE CONTROL PROGRAM LACKING IN GUIDANCE FOR SOME USERS AND FAILING TO CONTROL ALL TEST EQUIPMENT UTILIZED.**
 2. **EVALUATIONS ARE NOT ALWAYS PERFORMED ON IMPACTED PLANT EQUIPMENT FOLLOWING DISCOVERY OF OUT-OF-TOLERANCE TEST EQUIPMENT.**
- **POOR SELF-ASSESSMENT PRACTICES WERE NOTED IN M&TE.**

NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT

REFUELING OUTAGE OVERSIGHT PLANS

**DETAILED ASSESSMENT PLANS ARE CURRENTLY BEING PREPARED COVERING
THREE GENERAL OUTAGE FUNCTIONAL AREAS:**

- 1. PLANT MANIPULATION AND FUEL SHUFFLE ACTIVITIES**
 - 2. OUTAGE MODIFICATIONS**
 - 3. SPECIAL TESTING ACTIVITIES**
- MULTI-DISCIPLINED TECHNIQUES WILL BE USED**
 - UPON APPROVAL, PLANS WILL BE SHARED WITH ROBINSON**
 - EXTERNAL TECHNICAL EXPERTISE IS PLANNED TO ASSIST**
 - HIGH STANDARDS OF PERFORMANCE WILL BE EXAMINED**
 - ISSUES AND WEAKNESSES WILL BE DEBRIEFED TO SITE
MANAGEMENT UPON DISCOVERY.**
 - PERFORMANCE POTENTIALLY AFFECTING SAFETY, QUALITY, OR
RELIABILITY AND PREVIOUSLY IDENTIFIED WEAKNESSES WILL
BE SCRUTINIZED.**

Nuclear Assessment

Robinson Nuclear Project

Refueling Outage Oversight Plans

Functional Area Example: 2. Outage Modifications

M1087 - RHR Mini-Flow Recirc Line

Operations	Maintenance	Outage Mgmt	Eng/Tech Support	E&RC
Clearance(s)	WO Prep/Planning	Scheduling	Planning	ALARA Planning
- Prep/planning	Mock-ups/Practice	Planning	Problems	Practice involvement
- Draining	Pre-Job briefings	Pre-Fab Tracking	- Responsiveness	Dose projections
- Implementation	Turnover knowledge	Parts	- Conservative	RWPs
- Maintenance	Procedures	Oversight	- Technical Accuracy	- Accurate
- Removal	- Utilization	Progress tracking	of solutions	- Current
- Refill	- Accuracy	Communications	- Pro-active	- Understood
Procedure Revisions	- Understanding	Problems	Field Revisions	- Properly revised
Operator Training	- Use Expectations	- Identification	- Quantity	Pre-Briefings
- Mod knowledge	Contingencies	- Resource Utilization	- Reasons	Dosimetry
- Simulator training	- Planning	- Solutions	- Review adequacy	Contamination
Turnover knowledge	- Practice	- Lessons Learned	Documents	- decon
Testing	Safety	Priorities	- Timely Revised	- control spread
...	Coaching	- Safety, Quality, Reliability	- Accurate	Work Practices
...	...	Self-Critical	Training input	- Knowledge
...	- Enforcement
...
...

3/9/92

NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT DEVELOPMENTAL PLANS

- CONTINUE TO INDEPENDENTLY ASSESS THE PERFORMANCE OF ROBINSON TO THE HIGHEST STANDARDS OF NUCLEAR PERFORMANCE, FOCUSING ON SAFETY, QUALITY, AND RELIABILITY.
- BRING FORWARD SUBSTANTIVE AND IMPACTIVE PERFORMANCE ISSUES NOT LIMITED BY CURRENT OR PERCEIVED CONSTRAINTS.
- FOSTER A POSITIVE CHANGE ENVIRONMENT SUCH THAT RE-ENGINEERING OF OUR BUSINESS PROCESSES OCCUR AT ALL LEVELS OF THE NUCLEAR ORGANIZATION.
- CONTINUE STAFFING ROTATIONS, BRINGING RECENT LINE EXPERIENCE INTO ASSESSMENT, AND STRENGTHENING THE SELF-ASSESSMENT AND SELF-CRITICAL PRACTICES OF THE ROBINSON ORGANIZATION.
- INCORPORATE THE ROBINSON IPE RESULTS INTO THE FUNDAMENTALS OF ASSESSMENT SUCH THAT THE IMPORTANCE OF THE PERFORMANCE OF PLANT EQUIPMENT AND PERSONNEL IS KNOWN TO ALL.
- CONTINUE TO SCRUTINIZE THE ABILITY OF ROBINSON TO EFFECTIVELY TAKE CORRECTIVE ACTIONS TO SOLVE IDENTIFIED PROBLEMS.

NUCLEAR ASSESSMENT ROBINSON NUCLEAR PROJECT

SOME NEAR-TERM ASSESSMENTS:

CORRECTIVE ACTION
(APRIL)

DETERMINE THE ABILITY OF ROBINSON TO IDENTIFY AND CORRECT CONDITIONS ADVERSE TO QUALITY.

PRIORITIZATION
(APRIL & AUGUST)

DETERMINE THE EFFECTIVENESS OF THE ROBINSON PRIORITIZATION SYSTEM TO ACCOMPLISH IT'S OBJECTIVES.

OPERATIONS TEAM
(APRIL)

DETERMINE THE ABILITY, DESIRE, AND PRACTICE TO OPERATE ROBINSON CONSERVATIVELY IN A HIGH QUALITY, SAFE, AND RELIABLE MANNER.

SELF-ASSESSMENT
(MAY)

DETERMINE THE ABILITY OF ROBINSON TO SELF-IDENTIFY AND CORRECT PERFORMANCE WEAKNESSES.

WORK PRACTICES
(MAY)

DETERMINE THE ABILITY OF ROBINSON TO CORRECT THE IDENTIFIED WORK PRACTICE ISSUE, VIA THE CORRECTIVE ACTION PROGRAM.

NAD SELF-ASSESSMENT
(SEPTEMBER)

DETERMINE THE EFFECTIVENESS OF NAD TO ACCOMPLISH IT'S MISSION AND REALIZE PERFORMANCE IMPROVEMENTS AT ROBINSON.

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SECTION VI

MANAGEMENT ACTIONS

C. R. DIETZ

MANAGEMENT INITIATIVES

R. H. CHAMBERS

- PERSONNEL PERFORMANCE INCENTIVES

- PERSONNEL TRAINING AND DEVELOPMENT

- FACILITIES

- PLANNING

- PROGRAM INITIATIVES

MANAGEMENT ACTIONS

PERSONNEL PERFORMANCE INCENTIVES

- CORPORATE INCENTIVE PROGRAM
 - SUCCESSFUL IN 8 OF 10 CATEGORIES

- QUALITY ACHIEVEMENT AWARDS
 - EIGHT NOMINATIONS FROM RNP (26 EMPLOYEES)

- TOTAL QUALITY PROGRAM
 - 39 ACTIVE TEAMS IN 1991
 - 27 SYSTEM TEAMS
 - 12 QUALITY TEAMS

 - INCENTIVE GOAL
 - CUSTOMER SATISFACTION INCREASE

- GREAT IDEAS AT WORK
 - 53 IDEAS SUBMITTED IN 1991

 - \$6.8M ESTIMATED SAVINGS



EMPLOYEE INCENTIVE GOALS

DECEMBER 1991 (Year-end)

FINANCIAL STRENGTH



Goal

Achieve at least a cumulative 5% annual increase in earnings per share. (To be calculated on a normalized 1988 base of \$3.93 per share which for the year 1991 is \$4.52 per share.)

Status

Year-end 5.1%

DEMAND-SIDE MANAGEMENT



Goal

Add 4,500 high-efficiency heat pumps and 11,100 Safeshine lights.

Status

	Budget	Actual
Heat pumps	4,500	7,299
Safeshine lights	11,100	14,435

NUCLEAR PRODUCTION



Goal

Achieve a nuclear capacity factor of at least 70%.

Status

Year-end 70%

FOSSIL PRODUCTION



Goal

Fossil system equivalent forced outage rate will be no more than 5.75% from fossil generating units.

Status

Year-end 3.61%

NUCLEAR PERFORMANCE



Goal

Achieve a nuclear performance index of at least 80 from nuclear generating units.

Status

Year-end 93

CUSTOMER SATISFACTION



Goal

Increase the Company's overall favorability score to at least 82.

Status

Year-end 81.20

CONTINUITY OF SERVICE



Goal

Customers have service available at least 99.982% of the time on average.

Status

Average availability 99.988%

TOTAL QUALITY



Goal

- A. Achieve a minimum of a five point increase in the corporate internal customer satisfaction index. (Half credit)
- B. All departments will have completed the Effective Performance Management training for exempt employees and at least 40% of the non-exempt employees will have completed the training. (Half credit)

Status

- A. 5 point increase
- B. Exempt - 100%
- Non-exempt - 69%

EMPLOYEE SAFETY



Goal

- A. Achieve safety performance frequency rates of no more than 3.40 vehicle accidents per million miles driven and 5.55 injuries per million hours worked with disabling injuries being no more than .80. (Half credit)
- B. No employee fatalities. (Half credit)

Part A must be achieved to receive credit for part B.

Status

	Goal	Actual
A. Vehicle Accidents.....	3.40	2.89
Total Injuries.....	5.55	4.76
Disabling Injuries.....	0.80	0.89

B. Employee Fatalities 0

TOTAL EXPENDITURES



Goal

Total expenditures (construction and O&M including fuel) will not exceed 3.9¢/KWH system energy input (excludes depreciation and interest).

Status

Year-end 3.8¢

"We seek to become the best." Sherwood H. Smith, Jr.

PLEASE SHARE THIS INFORMATION WITH YOUR EMPLOYEES

MANAGEMENT ACTIONS (CONTINUED)

PERSONNEL TRAINING AND DEVELOPMENT

- PERFORMANCE TRAINING
 - EFFECTIVE PERFORMANCE MANAGEMENT
 - ALL EMPLOYEES TRAINED EXCEPT NEW HIRES
 - IMPLEMENTATION IN PROGRESS

 - RNP MANAGEMENT/SUPERVISORY TRAINING
 - STRATEGIC PLANNING AND VISION
 - SUPERVISORY RESPONSIBILITIES AND EXPECTATIONS
 - ORGANIZATION ANALYSIS
 - FINANCIAL RESPONSIBILITY
 - PERSONNEL POLICIES AND PROCEDURES

 - NGG SUPERVISORY DEVELOPMENT PROGRAM
 - DEVELOPMENT COMPLETED IN 1991
 - FIRST CLASS SCHEDULED IN MAY, 1992

 - TECHNICAL AND SKILLS DEVELOPMENT TRAINING
 - NUMEROUS INTERNAL TECHNICAL TRAINING PROGRAMS
 - ITEMS OF INTEREST/CURRENT ISSUES
 - TECH SUPPORT TRAINING
 - INDIVIDUAL DEVELOPMENT PLANS COMPLETED
 - OVER 8000 INSTRUCTIONAL HOURS IN 1991
 - OTHER MAJOR TRAINING INITIATIVES
 - OBSERVATION TRAINING
 - ROOT CAUSE ANALYSIS TRAINING

NUCLEAR GENERATION GROUP
SUPERVISORY DEVELOPMENT PROGRAM



Management and Professional Development

Carolina Power & Light Company

**NUCLEAR GENERATION GROUP
SUPERVISORY DEVELOPMENT PROGRAM**

POPULATION: ALL SUPERVISORS BELOW UNIT MANAGER

**Introduction:
Supervising in the
NGG
(1/2 Day)**

**Employee
Relations
(1-1/2 Days)**

**EEO
Workshop
(2 Days)**

**Industrial
Safety
(1 Day)**

**Interpersonal
Supervisory
Skills
(3 Days)**

**Leadership
and
Teambuilding
(2 Days)**

**Problem Solving
and
Decision Making
(3 Days)**

**Stress
Management
(1 Day)**

**Assertiveness
Skills
(1/2 Day)**

**Effective
Performance
Management
(2-1/2 Days)**

**Meeting and
Presentation
Skills
(2 Days)**

**Management
Principles
(3 Days)**

**Written
Communications
(2 Days)**

**Eleven (11) Courses
(24 Days)**

**NUCLEAR GENERATION GROUP
SUPERVISORY DEVELOPMENT PROGRAM
CURRICULUM**

WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1 May 11-15	Introduction: Supervising in the NGG (8:00 a.m.-Noon) <hr/> Employee Relations (1:00 p.m.-5:00 p.m.) 11	Employee Relations (8:00 a.m.-5:00 p.m.) 12	EEO Workshop (8:00 a.m.-5:00 p.m.) 13	EEO Workshop (8:00 a.m.-5:00 p.m.) <hr/> Evening Session (5:30 p.m.-7:00 p.m.) 14	Industrial Safety (8:00 a.m.-5:00 p.m.) 15
2 May 18-22	Interpersonal Supervisory Skills (8:00 a.m.-5:00 p.m.) 18	Interpersonal Supervisory Skills (8:00 a.m.-5:00 p.m.) 19	Interpersonal Supervisory Skills (8:00 a.m.-5:00 p.m.) 20	Leadership and Team Building (8:00 a.m.-5:00 p.m.) <hr/> Evening Session (5:30 p.m.-7:00 p.m.) 21	Leadership and Team Building (8:00 a.m.-5:00 p.m.) 22
THREE (3) WEEK BREAK					
3 June 15-19	Problem Solving & Decision Making (8:00 a.m.-5:00 p.m.) 15	Problem Solving & Decision Making (8:00 a.m.-5:00 p.m.) 16	Problem Solving & Decision Making (8:00 a.m.-5:00 p.m.) 17	Stress Management (8:00 a.m.-5:00 p.m.) <hr/> Evening Session (5:30 p.m.-7:00 p.m.) 18	Assertiveness Skills (8:00 a.m.-Noon) <hr/> Course Administration/ Application (1:00 p.m.-5:00 p.m.) 19
4 June 22-June 26	Effective Performance Management (8:00 a.m.-5:00 p.m.) 22	Effective Performance Management (8:00 a.m.-5:00 p.m.) 23	Effective Performance Management (8:00 a.m.-Noon) <hr/> Meeting & Presentation Skills (1:00 p.m.-5:00 p.m.) 24	Meeting & Presentation Skills (8:00 a.m.-5:00 p.m.) <hr/> Evening Session (5:30 p.m.-7:00 p.m.) 25	Meeting & Presentation Skills (8:00 a.m.-Noon) <hr/> Course Administration/ Application (1:00 p.m.-5:00 p.m.) 26
ONE (1) WEEK BREAK					
5 July 6-10	Management Principles (8:00 a.m.-5:00 p.m.) 6	Management Principles (8:00 a.m.-5:00 p.m.) 7	Management Principles (8:00 a.m.-5:00 p.m.) 8	Written Communications (8:00 a.m.-5:00 p.m.) <hr/> Evening Session Commencement (5:30 p.m.-7:00 p.m.) 9	Written Communications (8:00 a.m.-5:00 p.m.) 10

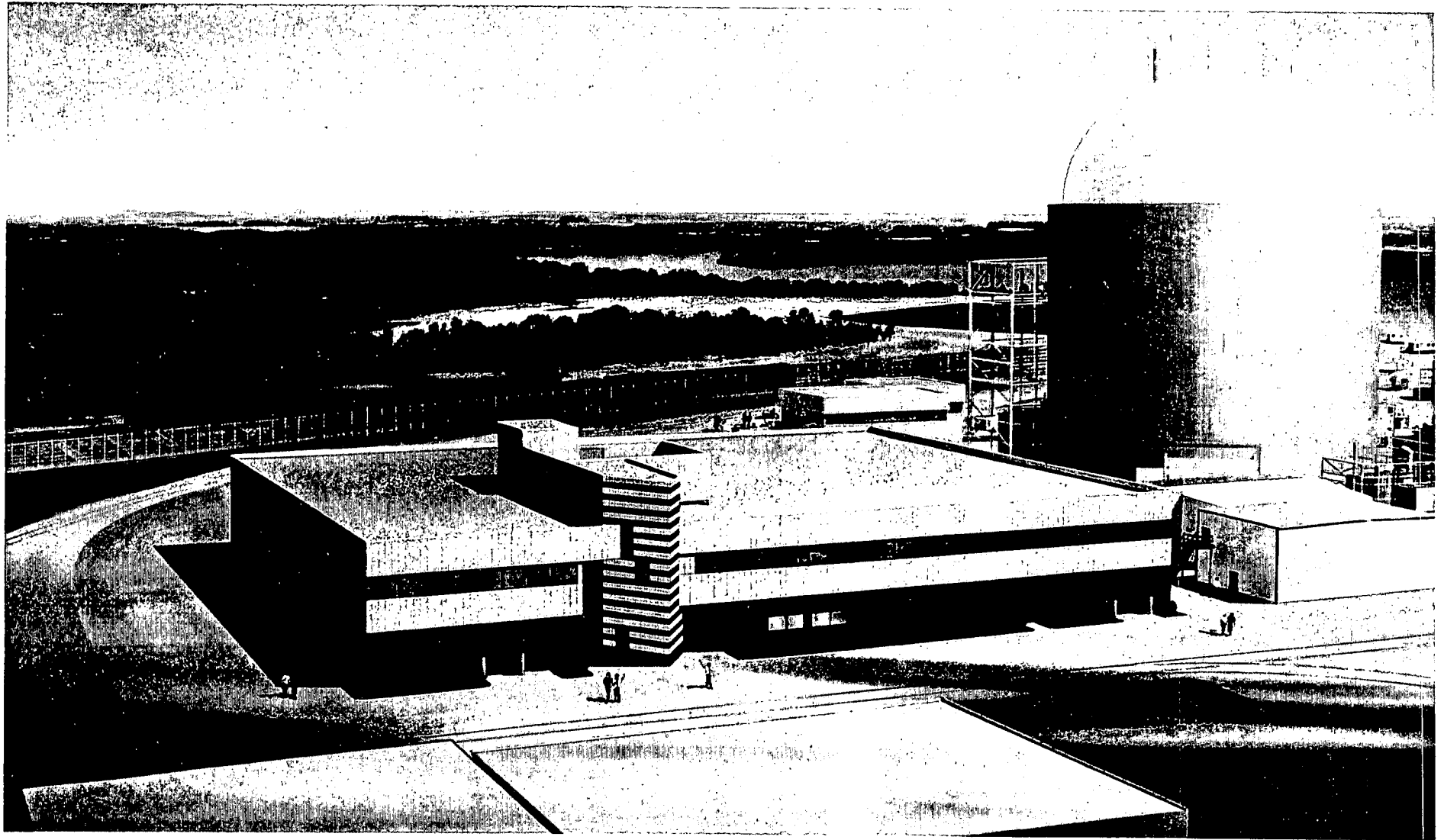
MANAGEMENT ACTIONS (CONTINUED)

FACILITIES

• O&M BUILDING

- FINAL BID PACKAGE RELEASED
 - CONSTRUCTION START APRIL, 1992
 - CONSTRUCTION COMPLETE NOVEMBER, 1992

- ADMINISTRATION BUILDING
 - SPECIFICATION DEVELOPMENT IN PROGRESS
 - CONSTRUCTION START IN 1993 (NOT CURRENTLY APPROVED IN CURRENT BUDGET CYCLE)



MANAGEMENT ACTIONS (CONTINUED)

PLANNING

- STRATEGIC PLANNING

- ISSUES AND DIRECTIVES

- RECOVERY OF DESIGN MARGIN
- PLANT AGING STRATEGY
- OPERATOR ACTION ASSESSMENT

- LONG RANGE PLANNING

- FIVE YEAR PLAN

- EVOLVING TO A WORKING DOCUMENT
- LACKS IDENTIFICATION OF LONG RANGE PROJECTS

- WORK MANAGEMENT AND INFORMATION SYSTEMS

- LAN INSTALLATION "COMPLETE"

- STARTING TO DERIVE BENEFITS
- COST BENEFIT ANALYSIS IN PROGRESS

- WORK MANAGEMENT SYSTEMS

- SYSTEM INSTALLATION AND PROCESS COMPLETE
- LOADING CURRENT COMMITMENTS
- SIGNIFICANT IN FUTURE RESOURCE DECISIONS

MANAGEMENT INITIATIVES

R. H. CHAMBERS

PROGRAM INITIATIVES

- OPERATIONS
- MAINTENANCE
- TECHNICAL SUPPORT
- ENVIRONMENTAL & RADIATION CONTROL
- PLANT SUPPORT
- CONTROL & ADMINISTRATION

OPERATIONS - PROGRAM INITIATIVES

- SELF-ASSESSMENTS
 - CONTROL ROOM OBSERVATIONS
 - SIMULATOR OBSERVATIONS
 - OPERATIONS MANAGER'S WEEKLY FIELD OBSERVATION

- MANAGEMENT EXPECTATIONS
 - ISSUED ANNUALLY
 - PERFORMANCE BASED ON ROUTINE DUTIES
 - DESIRE FOR CONSISTENCY BETWEEN SHIFTS

- LABELING PROGRAM
 - PROCEDURE DEVELOPED
 - CREW ON SITE AND EQUIPMENT SETUP
 - ANNUNCIATOR WINDOWS FOR OUTAGE - FIRST USE

- PROCEDURE UPGRADE
 - SECOND BI-ANNUAL REVIEW INTEGRATION
 - 391 - PROCEDURES APPROVED IN 1991
 - 33 - PROCEDURES APPROVED IN 1992 (YTD)
 - ALL ANNUNCIATOR PANEL PROCEDURES UPGRADED (44) IN 1991 PER INPO COMMITMENT
 - ALL ISI RELATED PROCEDURES (54) WILL BE UPGRADED IN FIRST QUARTER 1992 TO REFLECT THE THIRD 10 YEAR ISI INTERVAL (ASME SECTION X I-1986)
 - 170 PROCEDURE CHANGES REQUIRED TO SUPPORT RO 14 MODS

MAINTENANCE - PROGRAM INITIATIVES

- MAINTENANCE MINOR ADVERSE CONDITION REPORTING SYSTEM
 - SUPPORTS PLANT CORRECTIVE ACTION PROGRAM (LOWER TIER REPORTING)
 - IMPROVES SELF IDENTIFICATION

- MONTHLY PERFORMANCE MONITORING PROGRAM
 - UPGRADED WITH GRAPHS BEING PLACED ONTO THE PERFORMANCE INDICATION MONITORING SYSTEM (PIMS)
 - STATUS OF PERFORMANCE INDICATORS MORE VISIBLE TO PLANT PERSONNEL

- MAINTENANCE PERFORMANCE EVALUATIONS (SELF-ASSESSMENT)
 - PERFORMANCE BASED ASSESSMENT BY SUPERVISORS

- STANDARDS OF EXCELLENCE IN MAINTENANCE DEVELOPED
 - CLEARLY DEFINES EXPECTATIONS

- PROCEDURE UPGRADE PROGRAM
 - 104 PROCEDURES UPGRADED IN 1991
 - 66 PROCEDURES UPGRADED IN 1992 (YTD)
 - BEHIND IN INITIAL GOAL - 104 (210)
 - ADDITIONAL PERSONNEL ADDED

TECHNICAL SUPPORT - PROGRAM INITIATIVES

- PERSONNEL PERFORMANCE
 - SYSTEM AND COMPONENT ENGINEER DEVELOPMENT
 - THREE SYSTEM ENGINEERS QUALIFIED IN 1991
 - ONE COMPONENT ENGINEER QUALIFIED IN 1991
 - 25 ACTIVE SYSTEM TEAMS AT END OF 1991
 - SELF ASSESSMENT INITIATED TO MEASURE PROGRESS
 - TWO (2) SURVEYS CONDUCTED
 - ISSUES: BACKLOG, TRAINING, TIMELINESS, COMMUNICATIONS
 - CONDUCT OF OPERATIONS DOCUMENT FOR TECHNICAL SUPPORT
 - 20 GUIDELINES WRITTEN TO SUPPORT ACTIVITIES RANGING FROM PROCEDURE REVIEWS TO PLANT WALKDOWNS
 - PROCEDURE UPGRADE
 - 40 OF 151 PROCEDURES UPGRADED
 - 23 GUIDELINES UPGRADED/DEVELOPED

TECHNICAL SUPPORT - PROGRAM INITIATIVES (CONTINUED)

- **EQUIPMENT PERFORMANCE**
 - **REPETITIVE FAILURE PROGRAM**
 - PROGRAM IMPLEMENTED IN 1991
 - 116 REPETITIVE FAILURES IDENTIFIED IN 1991 (14 ACR's)

 - **MANAGED VALVE MAINTENANCE PROGRAM**
 - CHECK VALVE DESIGN REVIEWS COMPLETED

 - **POST-MAINTENANCE TESTING PROGRAM**
 - PROGRAM IMPLEMENTED IN 1991
 - DEVELOPED PER INPO GOOD PRACTICE

 - **PERFORMANCE MONITORING/PREVENTIVE MAINTENANCE PROGRAM**
 - 8 SYSTEM PERFORMANCE MONITORING AND PREVENTIVE MAINTENANCE SPECIFICATIONS DEVELOPED DURING 1991
 - 3 SYSTEMS HAVE PERFORMANCE GRAPHS ON THE LOCAL AREA NETWORK (LAN) COMPUTER SYSTEM FOR SYSTEM TEAM USE

 - **THERMOGRAPHY PROGRAM**
 - EQUIPMENT PURCHASED AND PERSONNEL TRAINED IN 1991
 - BASELINE DATA IS BEING OBTAINED ON PLANT COMPONENTS

ENVIRONMENTAL AND RADIATION CONTROL
PROGRAM INITIATIVES

- USE OF VIDEO CAMERAS
 - TO REDUCE DOSE DURING INSPECTIONS
 - TO ASSIST WITH FIRE/SECURITY WATCHES IN HIGH RAD AREAS

- USE OF REMOTE DETECTORS FOR MONITORING HI RAD FILTERS

- SURROGATE VIDEO TOUR STATIONS (4)
 - MAINTENANCE PLANNERS: JOB PLANNING
 - RCA ENTRANCE: PRE-JOB BRIEFINGS
 - ALARA OFFICE: DOSE PROJECTIONS AND ALARA INITIATIVES
 - CORPORATE NED: MOD PLANNING

- MODIFIED LI CHEMISTRY PROGRAM TO REDUCE CORROSION

- SELF-ASSESSMENT PROGRAM INITIATED
 - FIELD OBSERVATIONS OF JOB PERFORMANCE BY TECHNICIANS AND SUPERVISION

PLANT SUPPORT PROGRAM INITIATIVES

- PLANT PROGRAM FOR ESTABLISHMENT OF TRANSIENT
WORKER QUALIFICATION

- IMPLEMENTATION OF PLANT PROGRAM FOR CONDUCT OF
REQUENTLY PERFORMED TESTS

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R. H. CHAMBERS |
| VII. | PERFORMANCE SUMMARY | <u>R. H. CHAMBERS</u> |
| VIII. | CONCLUSION | C. R. DIETZ |

SECTION VII

PERFORMANCE SUMMARY

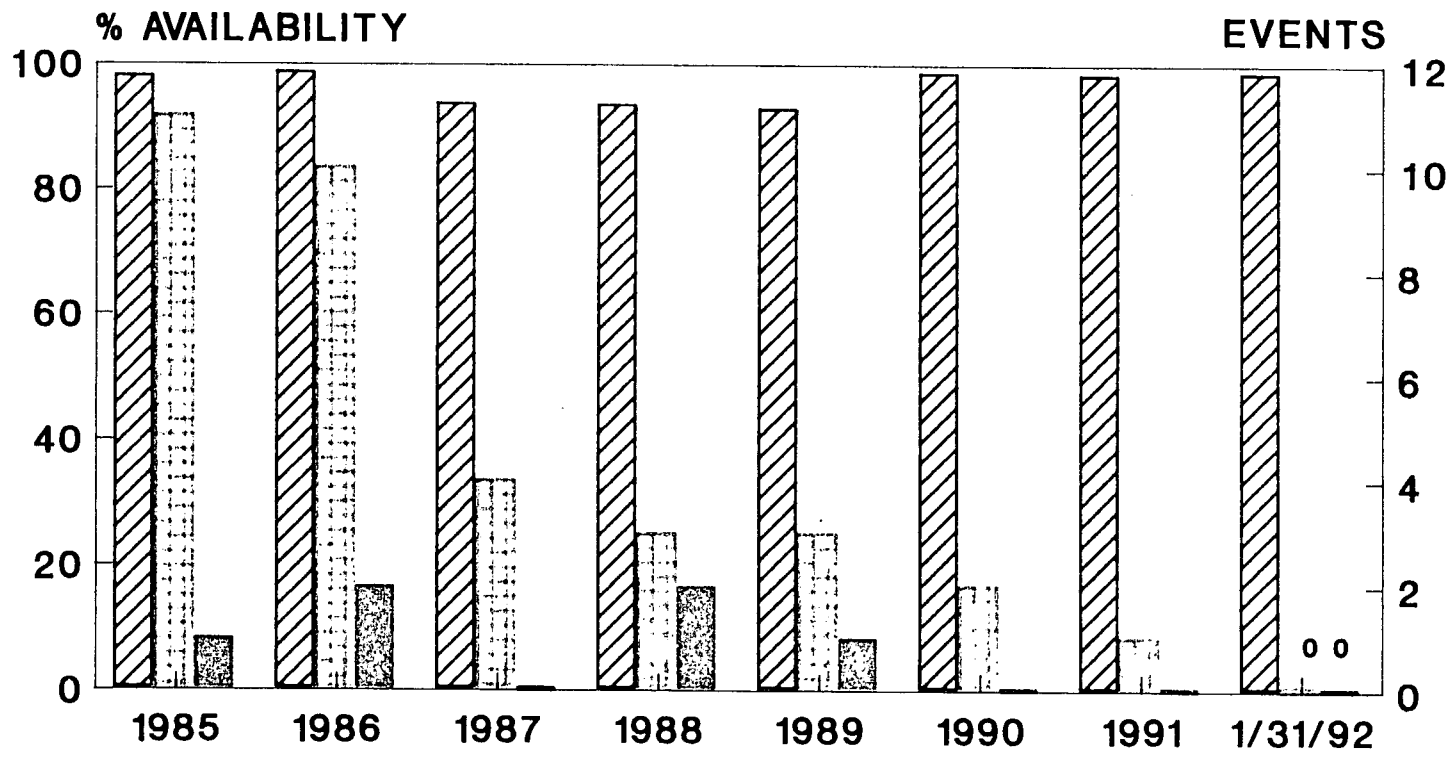
R. H. Chambers

- NUCLEAR SAFETY
- PRODUCTION
- RADIOLOGICAL CONTROL

PERFORMANCE SUMMARY

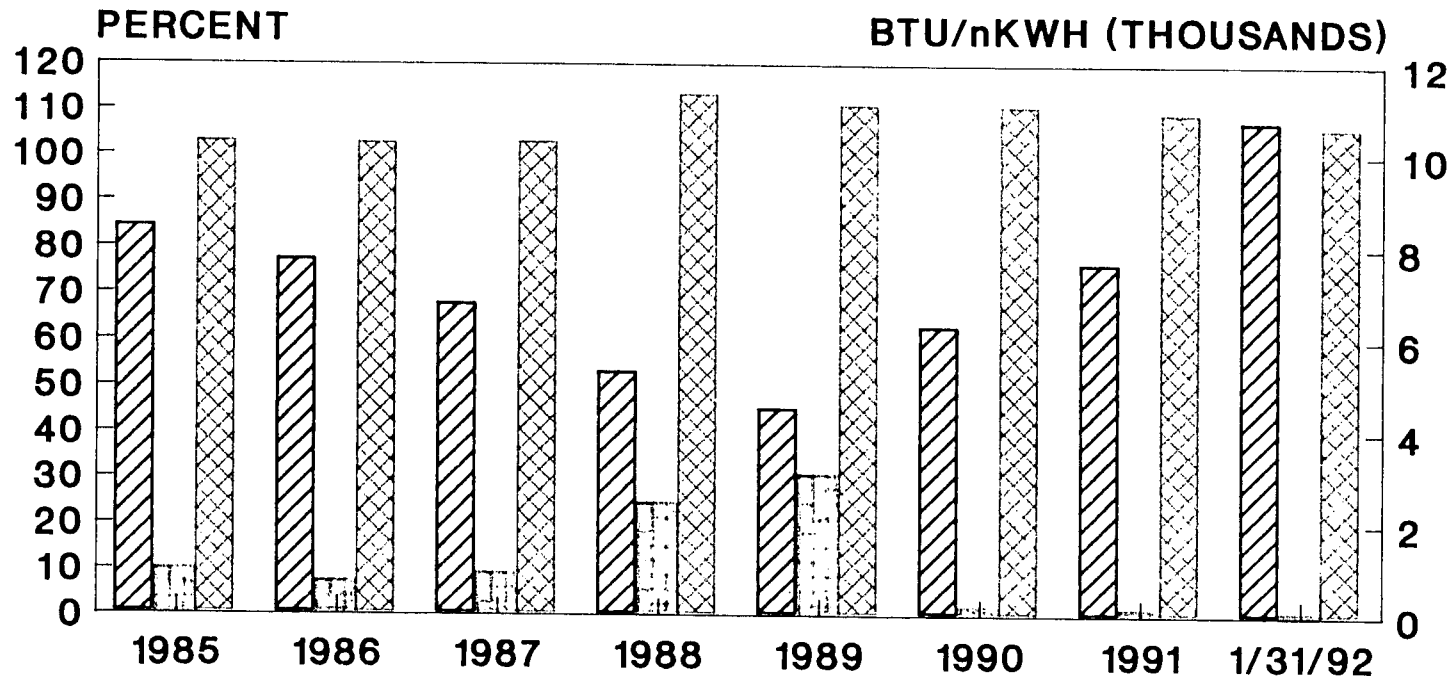
- **NUCLEAR SAFETY**
 - **Total Safety System Availability**
 - Achieved 1991 Goal (96%) With Actual 98.41%
 - **Unplanned Scrams While Critical**
 - Achieved 1991 Goal (2) With Actual 1 (Equipment Related)
 - Last Personnel Caused Scram - 11/17/90
 - **Unplanned Safety System Actuations**
 - Achieved 1991 Goal (1) With Actual 0
 - Last Event - 2/26/89
- **PRODUCTION**
 - **Equivalent Availability**
 - 1991 Actual 76.6 Was Below Goal (85%) Due to RFO-13 Extension
 - **Forced Outage Rate**
 - 1991 Actual 1.27% (RFO-13 Extension Not Considered Forced Outage Per EEI Definition)
 - **Thermal Performance**
 - Achieved 1991 Goal (11,000 BTU/nKWH) With Actual 10,926 NKWH
- **RADIOLOGICAL CONTROL**
 - **Total Site Exposure**
 - Achieved 1991 Goal (250 Mrem) With Actual 194 Mrem
 - Lowest In Site History
 - **Radwaste Shipped**
 - Achieved 1991 Goal (3000 cu. ft.) With Actual 2289 cu. ft.)
 - Second Lowest Year of Record
 - **Contaminated Area (Outside CV)**
 - Achieved 1991 Goal (2000 sq ft.) With Actual Annual Average 1340 sq. ft. (<2% RCA)
 - Lowest on Record

RNPD PERFORMANCE NUCLEAR SAFETY



SAF. SYS. AVAIL.
 SCRAMS
 SAF. SYS. ACTUATIONS

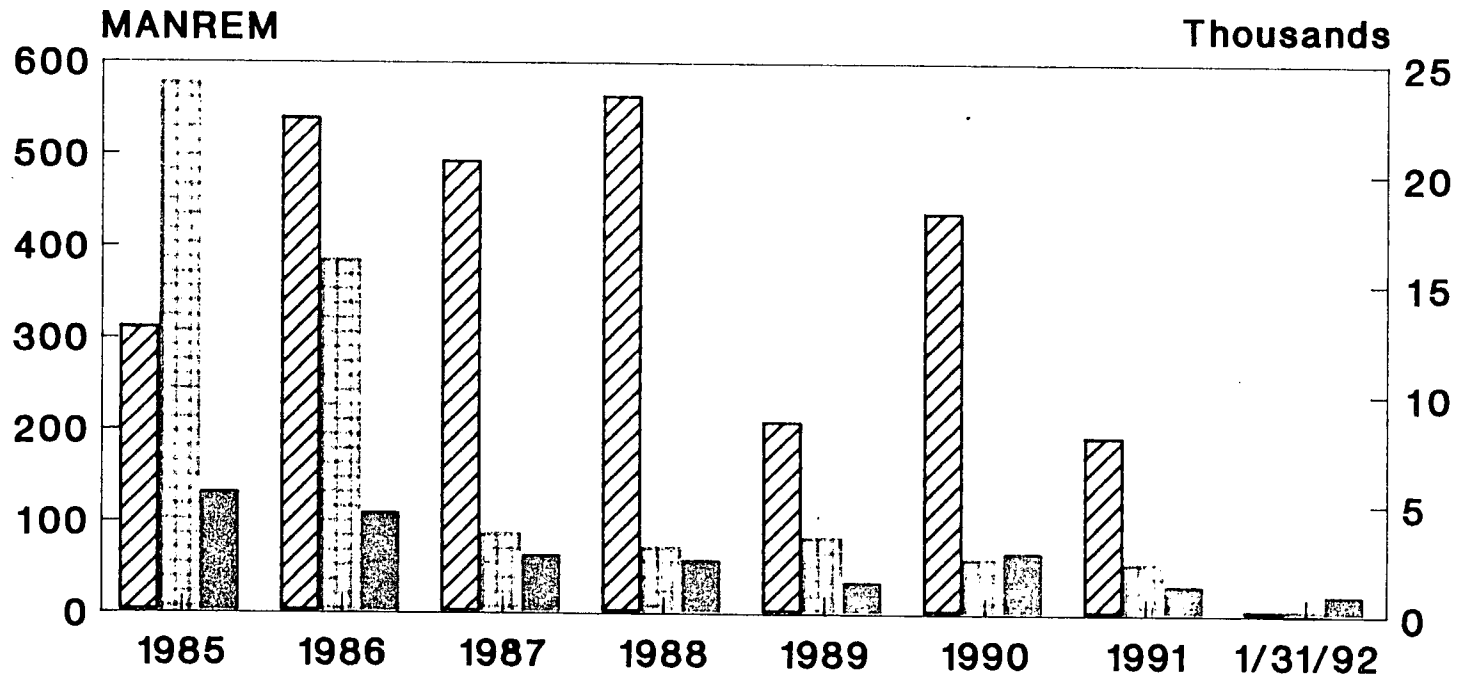
RNPD PERFORMANCE PRODUCTION



 EQUIVALENT AVAIL.
 THERMAL PERFORMANCE

 FORCED OUTAGE RATE

RNPD PERFORMANCE RADIOLOGICAL CONTROL

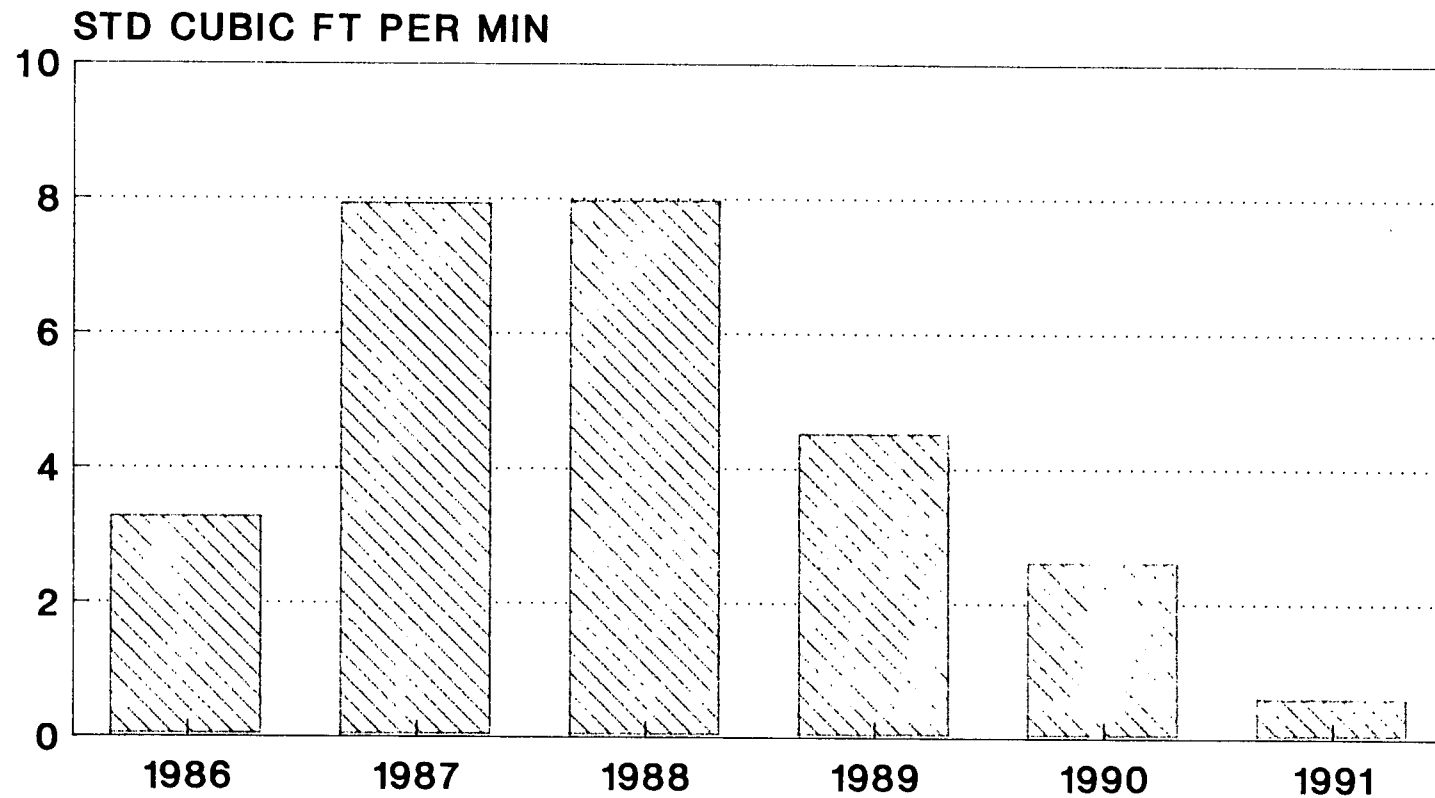


 EXPOSURE

 RADWASTE VOL. CU.FT.

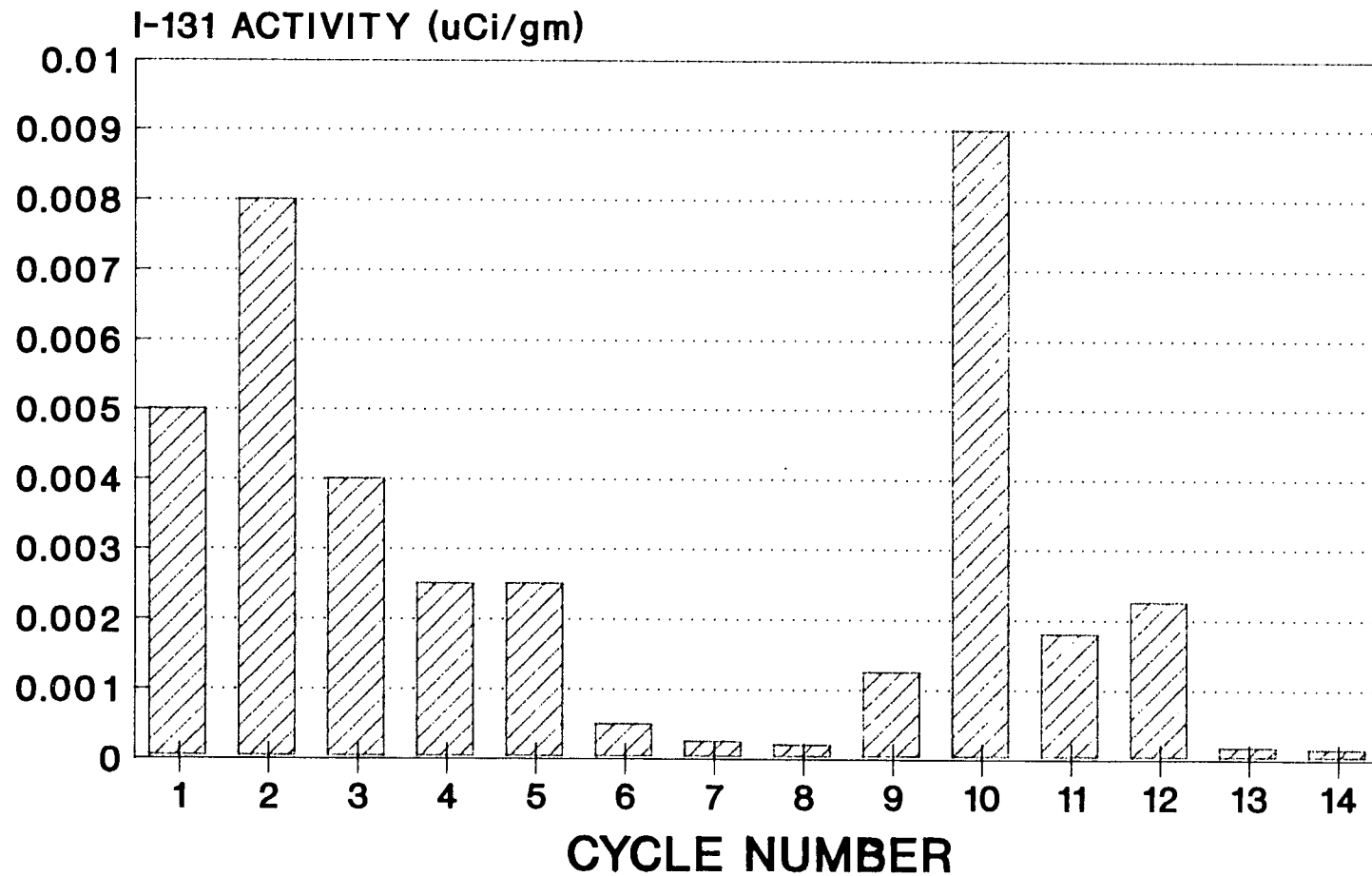
 CONTAM. AREA SQ.FT.

CONDENSER AIR INLEAKAGE



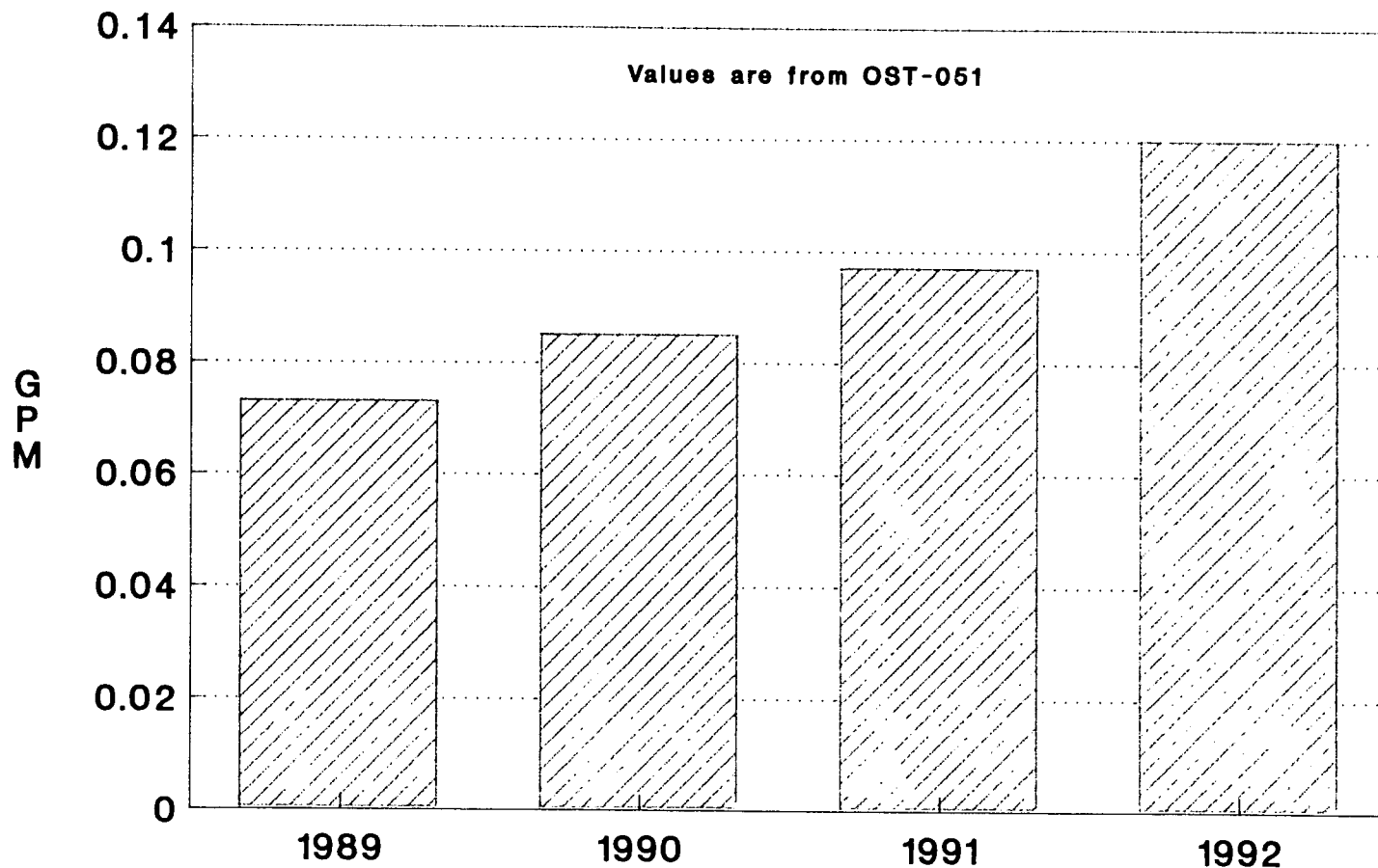
 YEARLY AVG

H. B. ROBINSON FUEL INTEGRITY



RCS LEAKAGE

AVERAGE PER YEAR



1992 DATA REFLECTS AN INCREASE IN FEB. DUE TO CHARGING PUMP PACKING LEAKAGE WHICH HAS SINCE BEEN REPAIRED.

AGENDA

- | | | |
|-------|--|-------------------------------|
| I. | INTRODUCTION | C. R. DIETZ |
| II. | MANAGEMENT ISSUES AND CONCERNS | C. R. DIETZ |
| III. | OUTAGE PERFORMANCE | R. L. BARNETT |
| IV. | NUCLEAR ENGINEERING DEPARTMENT
SELF ASSESSMENT/IMPROVEMENTS | J. M. CURLEY |
| V. | NUCLEAR ASSESSMENT
ROBINSON NUCLEAR PROJECT | J. A. DOBBS |
| VI. | MANAGEMENT ACTIONS AND INITIATIVES | C. R. DIETZ
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SECTION VIII

CONCLUSION

C. R. DIETZ

CONCLUSION

ROBINSON NUCLEAR DEPARTMENT IS GOOD, GETTING BETTER BY:

- **Being 100 % Responsible for Auditable Results**
- **Practicing Self-Assessment**
- **Sustaining Our Commitment to Improved Performance**