LIST OF ACRONYMS

AGS	Assistant General Supervisor
ANSI	American National Standards Institute
ASEU	Auxiliary Systems Engineering Unit
ASME	American Society of Mechanical Engineers
BG&E	Baltimore Gas & Electric Company
CCETS	Calvert Cliffs Equipment Tracking System
CCI	Calvert Cliffs Instruction
CCNPP	Calvert Cliffs Nuclear Power Plant
CFR	Code of Federal Regulations
CMU	Configuration Managment Unit
Dockret	Document Retrieval
E&C	Electrical & Controls
EPRI	Electric Power Research Institute
EPU	Engineering Planning Unit
ETD	Equipment Technical Database
FCR	Facility Change Request
FSTC	Functional Surveillance Test Coordinator
GS	General Supervisor
HPES	Human Performance Evaluation System
INPO	Institute of Nuclear Power Operations
IREP	Interim Reliability Evaluation Report
ISEU	Independent Safety Evaluation Unit
ISI	In-Service Inspection
JUMA	Joint Utility Management Audit
K-T	Kepner-Tregoe
MO	Maintenance Order
MPS	Maintenance Planning System
MR	Maintenance Request
MSU	Management Systems Unit
NCR	Non-Conformance Report
NED	Nuclear Energy Division
NEDCP	Nuclear Energy Division Control Procedure
NESD	Nuclear Engineering Services Department
NIP	Nuclear Information Project
NIPS	Nuclear Information Planning and Support
NMS	Nuclear Maintenance System
NPP	Nuclear Program Plan
NRC	Nuclear Regulatory Commission
O&M	Operations & Maintenance
OMC	Outage and Maintenance Coordination - Operations and Maintenance Coordinator
OSSRC	Off-Site Safety Review Committee
PIP	Performance Improvement Plan
PM	Preventive Maintenance
PMT	Post Maintenance Testing
POEAC	Plant Operating Experience Assessment Committee

POSRC	Plant Operations and Safety Review Committee
PUP	Procedure Upgrade Program
P&PE	Plant and Project Engineering
QA	Quality Assurance
QAP	Quality Assurance Procedure
QASSD	Quality Assurance and Staff Services Department
QAU	Quality Audits Unit
QC	Quality Control
QCMU	Quality Control Master Unit
RCA	Root Cause Analysis
RCM	Reliability Centered Maintenance
SOER	Significant Operating Event Report
SSFI	Safety System Functional Inspection
SSTC	Site Surveillance Test Coordinator
ST	Surveillance Test
STI	Special Team Inspection
STP	Surveillance Test Procedure
VP	Vice President

11. Insufficient resource allocation.

Correlation of PIP Implementation Program sections with PIP Action Plans and associated root cause numbers defined above is shown in Table 1.1. Table 1.4 shows the same information sorted by root cause.

None of the Action Plans contained in the PIP has been deleted or downgraded in importance. However, all of them have been ranked in priority relative to each other for planning and resource projection purposes. Action Plans have been rearranged in this submittal by their functional relationship rather than by root cause groups as in the PIP. This new arrangement is as follows:

- Management Process Improvements (Section 2.0)

  Action Plans related to setting goals and priorities, management planning, resource allocation, and accountability are included under this tab.

- Organizational Dynamics Improvements (Section 3.0)

  Action Plans related to improving management skills, improving intergroup communications, and performing work in BG&E's organization structure are included under this tab.

- Assessment Capability Improvements (Section 4.0)

  Action Plans related to self-assessment of activities for safety significance, root cause analysis, improving effectiveness of quality assurance and quality control, and improving BG&E's understanding of nuclear industry problems for application at Calvert Cliffs are included under this tab.

- Activity Control Improvements (Section 5.0)

  Action Plans related to improving technical capabilities, upgrading procedures, improving the procurement and maintenance processes, and improving design basis document control are included under this tab.

- PIP Verification Processes (Section 6.0)

  The methods by which PIP implementation and effectiveness will be verified using the verification methods described above are included under this tab.

- Planning and establishing more effective controls on the procedure upgrade process.

- Establishing realistic priorities, allocating resources, and establishing appropriate schedules.

- Integrating procedure upgrade activities with other Action Plans including Surveillance Test Program (Section 5.2.2), Post Maintenance Testing (Section 5.2.3), and Procurement Program Project (Section 5.3.1).

- Establishing an organization to provide increased procedure process controls, project management controls, procedure upgrade standards, and procedure tracking methods.

- Transition of current procedure upgrade into this Action Plan.

OUTCOME/RESULTS

The results to be achieved under this Action Plan are:

- Centralized management of the procedures upgrade process.

- Establish site-wide procedure preparation and revision standards.

- Train procedure writers, reviewers and approvers in the new procedure preparation standards.

- Develop and implement reviewer qualification standards.

- Revise scheduling of procedure reviews and revisions.

- Establish cross-disciplinary review process.

METHODS

The methods for performing this Action Plan are:

1. Rank procedure revisions with respect to the importance of the procedure and its need for revision.

2. Develop and implement a site-wide procedure writer's guide.

3. Revise top level control procedures and standards for the preparation of procedures.

4. Implement training program for Procedure Upgrade personnel.

5. Develop and implement Procedure Upgrade progress tracking system.

RESOURCES

See Appendix B, PIP Action Plan Resources.

RESPONSIBILITY

The responsibility for this Action Plan is assigned to:

o Project Manager, Procedure Upgrade Program.

The schedule for this Action Plan is presented in Appendix A, PIP Action Plan Schedules.

VERIFICATION

Implementation verification:

1. Verify that acceptable Writer's Guide and procedure preparation procedure have been prepared.

2. Verify training of procedure preparers has been completed.

3. Verify appropriateness of procedure revision schedule.

Feedback verification:

4. Supervisor observation and feedback from workers on progress of procedure upgrade.

Effectiveness verification:

5. The effectiveness of the Procedure Upgrade Program will be evaluated through all four vertical slice assessments described in Section 6.3. Because this is a long-term effort, ultimate effectiveness of the Program will be assessed by Quality Assurance assessments that include effectiveness evaluation concepts.

METHODS

The methods for performing this Action Plan are:

1. Implement a new organization with clear cut lines of responsibility and overall program control under one individual.

2. Develop/Revise formal control procedures.

3. Develop a computerized scheduling and data tracking system.

4. Upgrade all STP's to a common format (part of Procedure Upgrade Program)

The schedule for this Action Plan is presented in Appendix A, PIP Action Plan Schedules.

RESOURCES

See Appendix B, PIP Action Plan Resources.

RESPONSIBILITY

The responsibility for this Action Plan is assigned to:

- Overall Responsibility Items 1, 2 & 3 - Site Surveillance Test Program Manager.

- Overall Responsibility Item 4 - Program Manager, Procedures Upgrade Program.

VERIFICATION

Implementation verification:

1. Verify organization and staffing of the new consolidated surveillance test group.

2. Verify ST preparation and control procedures have been prepared and revised.

3. Verify that an appropriate ST procedure schedule has been prepared and is being implemented.

4. Verify the development of the scheduling and data trending programs.

5. Verify the development of new consistent data reports.

6. Verify training of appropriate personnel in the new ST control and preparation procedures.

Feedback verification:

7. Verify the consistent application and use of the new procedures.

Effectiveness verification:

8. The Management and Quality Assurance Assessment, the Self-Assessment and Events Analysis Assessment, and the Maintenance/Operations Interfaces and Support Assessment described in Section 6.3 will evaluate the effectiveness of the Surveillance Test Program improvements.

assessments. Many of the Action Plans are covered by two or more assessments further assuring in-depth evaluation of effectiveness from different perspectives.

Table 6.1 provides our current correlation between the vertical-slice assessments and the Action Plans that they will cover. Some revisions may occur based on results from implementation and feedback verifications or from the process to develop detailed vertical-slice assessment checklists. Development of the detailed assessment plans will include evaluation of the elimination of root causes of decline in Calvert Cliffs performance to assure that the root causes have been adequately addressed.

During the assessments, the vertical-slice width will be extended horizontally as necessary to determine if appropriate, effective methodologies and procedures have been implemented. If a problem is suspected, the horizontal extent of the assessment will be widened in the specific area of concern until the boundaries of the generic problem (issue) can be adequately defined. The assessments will cross organizational lines and will assess overall performance in related functional areas. The goal will be to evaluate the effectiveness of performance improvement efforts, and to verify that plant programs and initiatives have been revised to incorporate and implement concepts for continued improvement.

These vertical-slice assessments will be performed under the direction of the Quality Assurance Section. A "building block" approach was employed to determine the order in which the assessments are to be performed, starting with the Management and Quality Assurance assessment. Performance improvement in these areas is fundamental to all other efforts; therefore, these areas must be assessed first.

The Management and Quality Assurance Assessment is scheduled for the first quarter of 1990 so that its results can be factored into the 1990 Spring Planning Conference. The remaining three assessments will be performed sequentially with appropriate intervals between them. The assessment intervals will be based on the Action Plan schedules and on the expected rate and order in which significant performance improvements can be expected to occur. Some of the Action Plans will be implemented over long periods. In these cases, the assessments listed in Table 6.1 will gauge effectiveness of the pilot programs. Their long-term effectiveness will be evaluated under subsequent effectiveness verifications that will be made part of the on-going Quality Assurance Program.

5.3 Configuration Control Improvements

Several Action Plans have significant impact on configuration control activities at Calvert Cliffs. These include the Procurement Program Project, NIPS Equipment Technical Database and Maintenance Planning System, Technical Manual Improvements, and the Configuration Management Unit. These are discussed below.

5.3.1 Procurement Program Project

The goal of the Procurement Program Project is to develop an integrated procurement program that provides items acceptable for nuclear safety related use.

In recognition of procurement program deficiencies identified by the NRC at other nuclear plants in the mid-to-late 1980s and the development of the EPRI Guideline NP-5652, "Guideline for the Utilization of Commercial Grade Items in Nuclear Safety Related Applications," BG&E established a Procurement Task Force. The Procurement Task Force charter was to evaluate current regulatory interpretations, the results of internal audits, and the recommendations of an assessment conducted by industry experts. The Procurement Task Force evaluation led to the establishment of a full-time Procurement Program Project Team to develop and implement an action plan.

The Project Team identified the following ten objectives for the Procurement Program Project:

- Develop procedures to ensure that the required technical evaluation of replacement items is adequate to maintain the design basis of the plant
- Develop a program to ensure that product acceptance activities are adequate to ensure the quality of the procured items
- Modify existing procedures to reflect the new procurement program
- Upgrade existing technical documents used as input to the procurement process
- Establish an integrated procurement organization (which is adequately staffed) to increase the efficiency and effectiveness of the new procurement process
- Improve procurement planning activities to reduce lead time, reduce cost, and improve inventory control

- Develop and implement a centralized procurement database and procurement tracking system

- Conduct training on procurement

- Provide logistics support (i.e. facilities, office support equipment, and software) needed to implement the new program)

- Develop the methodology for the transition from program development to program implementation (change management)

To implement these objectives, the Procurement Program Project has assigned Task Managers for each objective. Each objective has been broken down to required tasks and sub-tasks to facilitate identifying resources and scheduling.

In the third objective, a task calls for the development of a new Calvert Cliffs Instruction (CCI). This CCI will describe the generic safety related and non-safety related procurement process starting with the identified need for an item to its final issuance from the storeroom. The CCI will be the controlling document for which the specific procedures, practices, and methods shall be established.

To assist in development of the new procurement program, BG&E has retained the services of a consultant, who has been involved in upgrading other utilities' procurement programs.

OUTCOME/RESULTS

The results to be achieved under this Action Plan include:

- Develop and implement a procurement program which is consistent with current industry practices and NRC guidelines.

METHODS

The methods for performing this Action Plan are:

1. Improve procedures for technical evaluation of replacement items.

2. Improve product acceptance procedures to ensure the quality of procured items.

3. Modify existing procedures to reflect the new procurement program.

Feedback verification:

4. Prepare and use a feedback form for users as well as personnel in direct and indirect procurement functions.

Effectiveness verification:

5. The effectiveness of the Procurement Program Project will be evaluated by the Management and Quality Assurance Assessment, the Design and Implementation (FCR) Assessment, and the Maintenance/Operations Interfaces and Support Assessment described in Section 6.3. The ultimate evaluation of the Procurement Upgrade Program will be by means of Quality Assurance assessments that incorporate effectiveness concepts.

METHODS

The methods for performing this Action Plan are:

1. Select and purchase software package.

2. Test, and modify software package.

3. Perform user acceptance testing.

4. Perform data collection and conversion.

The schedule for this Action Plan is presented in Appendix A, PIP Action Plan Schedules.

RESOURCES

See Appendix B, PIP Action Plan Resources.

RESPONSIBILITY

The responsibility for this Action Plan is assigned to:

- Supervisor, Nuclear Information Planning and Support Unit.

VERIFICATION

Implementation verification:

1. Verify implementation of a software package.

2. Verify training plan implementation and assignment of individual tasks.

3. Perform periodic audits to assure that procedures are being followed.

Feedback verification:

Not applicable

Effectiveness verification:

4. The effectiveness of this Action Plan will be evaluated by the Maintenance/Operations Interface and Support Assessment as described in Section 6.3.

PERFORMANCE IMPROVEMENT PLAN
SUMMARY STATUS REPORT

07/31/89 PIPIP ACT PLAN #	04/07/89 PIP ACT PLAN #	SUBJECT	PLAN MANAGER	TOTAL MNHRS	REMAINING MNHRS	START DATE	TARGET COMPLETION DATE
MANAGEMENT PROCESS IMPROVEMENTS							
2.2.1	II.B.9	PERFORMANCE STANDARDS	MARKOWSKI, MIKE	142.00	124.00	7/13/89	2/23/90
2.2.2	II.B.4	COMMUNICATIONS PLAN	EDWARDS, ANN	11285.00	5791.00	1/06/89	1/29/90
2.3.0	II.B.1A	NPP ISSUES BASED PLANNING	TIETJEN, KEN	689.00	182.00	6/12/89	8/22/91
2.5.1	II.B.6	COMMITMENT MANAGEMENT SYSTEM	TAYLOR, TOM	2163.00	1205.00	4/21/89	10/31/89
ORGANIZATIONAL DYNAMICS IMPROVEMENTS							
3.2.0	IV.B.5	MANAGING ORGANIZATION & PGM CHANGE	MARKOWSKI, MIKE	328.00	328.00	6/26/89	5/03/90
3.3.0	II.B.11	LEADERSHIP CONFERENCES	MARKOWSKI, MIKE	78.00	2.00	6/12/89	10/17/89
3.4.0	II.B.7	TEAM BUILDING WORKSHOPS	MARKOWSKI, MIKE	192.00	192.00	7/20/89	10/04/89
3.5.0	II.C.1	PROJECT MANAGEMENT	ZUMWALT, ERIC	3660.00	3660.00	7/10/89	4/02/90
3.6.0	IV.B.3	DAILY/OUTAGE WORK CONTROL	WOLF, GUS	6662.00	6302.00	6/05/89	3/26/93
3.7.0	IV.B.2	ENGINEERING PLANNING	MARINARI, DAN	5544.00	1064.00	12/01/88	12/29/89
3.8.0	II.C.2	SYSTEM CIRCLES	POLAK, MIKE	4075.00	2958.00	11/28/88	3/22/90
3.9.0	II.B.8	QUALITY CIRCLES PROGRAM	EDWARDS, ANN	9942.00	9798.00	3/14/89	9/21/90
ASSESSMENT CAPABILITY IMPROVEMENTS							
4.2.0	III.C.3B	QC IMPROVEMENTS	ROMNEY, KEN	73444.00	73424.00	3/01/89	1/30/91
4.3.0	III.C.3A	QA INTERNAL ASSESSMENT IMPROVEMENTS	ANUJE, ANA	11496.00	10664.00	5/18/89	7/25/90
4.4.0	III.C.2	INDEPENDENT SAFETY EVAL UNIT	PIERINGER, PAUL	24304.00	24304.00	5/18/89	6/18/91
4.5.0	III.B.3	SAFETY ASSESSMENT	KATZ, PETE	3352.20	3063.20	5/08/89	2/07/91
4.6.0	III.C.4	ROOT CAUSE ANALYSIS	DAVIS, STEVE	3720.00	3124.00	5/09/88	2/11/91
4.7.0	III.B.2	POSRC	CARROLL, JOHN	15[illegible].00	120.00	6/01/89	11/08/89
4.8.0	III.B.1	OSSRC	PRITCHETT, TOM	130[illegible].00	1181.00	1/20/89	11/02/89
4.9.0	III.B.7	VISITING OTHER PLANTS	BOWMAN, MARV	520.00	480.00	7/21/89	12/08/89
ACTIVITY CONTROL IMPROVEMENTS							
5.2.1	II.B.10	PROCEDURE UPGRADE PROGRAM	LATHAM, DAN	552935.00	520500.00	2/01/89	12/31/92
5.2.2	II.C.[illegible]	SURVEILLANCE TEST PROGRAM	DUNKERLY, CHARLIE	40394.01	40390.01	6/01/89	5/29/91
5.2.3	III.C.7	POST MAINTENANCE TESTING	HAYDEN, JOHN	3934.00	100.00	1/03/89	9/01/89
5.3.1	III.C.6	PROCUREMENT PROGRAM PROJECT	DOSWELL, JOE	28349.00	28349.00	9/05/89	9/27/90
5.3.2	II.B.5AB	NIPS EQUIP DATABASE/MAINT PLNG SYS	SHERANKO, BOB	11216.00	9945.00	3/31/89	9/05/90
5.3.3	II.C.6	TECHNICAL MANUAL IMPROVEMENTS	ROY, G	6470.00	6330.00	7/13/89	11/01/90
5.3.4	III.B.4	CONFIGURATION MANAGEMENT UNIT	PERKS, P.	167650.00	167400.00	7/13/89	9/02/94
5.4.1	III.B.5	SYSTEM ENGINEER TRAINING	YOE, JIM	5874.00	5548.00	5/05/89	12/18/89
5.4.2	II.C.7	MINOR MODIFICATIONS	MIRANDA, TONY	1247.00	1051.00	6/26/89	12/01/89
5.4.3	III.B.8	RELIABILITY CENTER MAINTENANCE	GREENE, KEN	8384.00	6536.00	9/30/88	12/27/89
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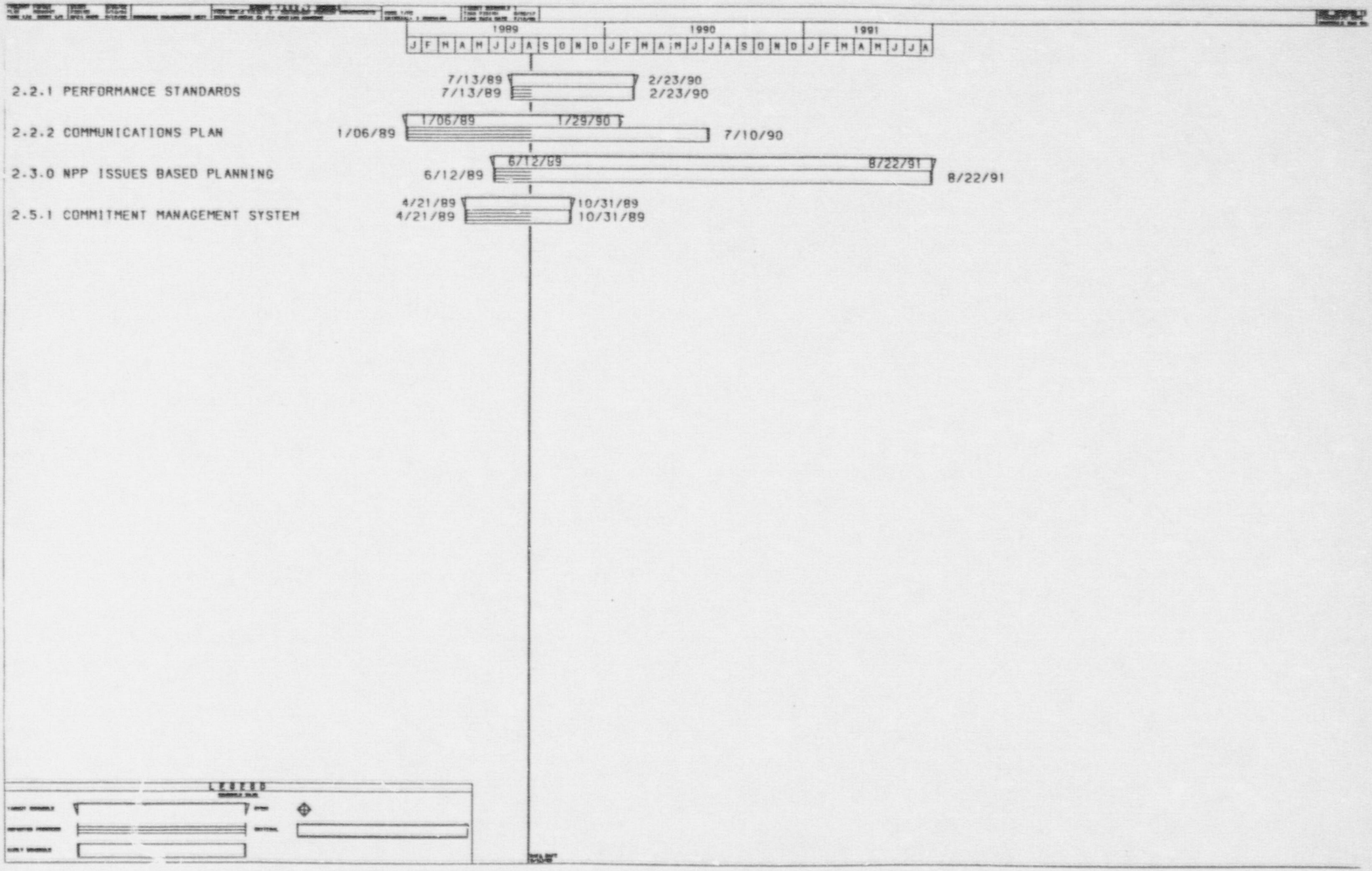
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2.2.1 PERFORMANCE STANDARDS
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2.2.2 COMMUNICATIONS PLAN
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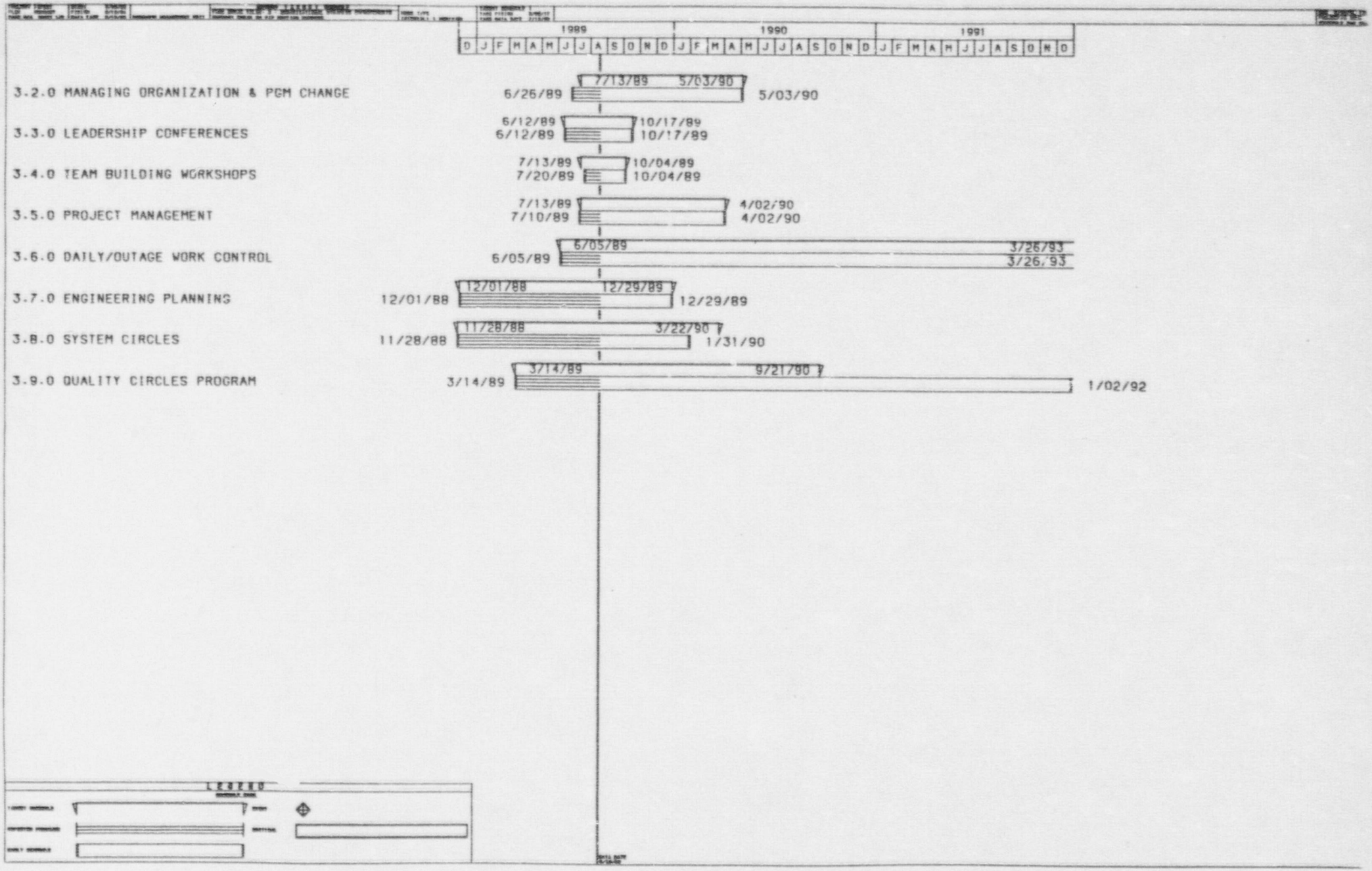
2.3.0 NPP ISSUES BASED PLANNING
6/12/89
6/12/89
8/22/91
8/22/91
2.5.1 COMMITMENT MANAGEMENT SYSTEM
4/21/89
4/21/89
10/31/89
10/31/89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3.2.0 MANAGING ORGANIZATION & PCM CHANGE
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3.3.0 LEADERSHIP CONFERENCES
6/12/89
10/17/89
6/12/89
10/17/89
3.4.0 TEAM BUILDING WORKSHOPS
7/13/89
10/04/89
7/20/89
10/04/89
3.5.0 PROJECT MANAGEMENT
7/13/89
4/02/90
7/10/89
4/02/90
3.6.0 DAILY/OUTAGE WORK CONTROL
6/05/89
3/26/93
6/05/89
3/26/93
3.7.0 ENGINEERING PLANNING
12/01/88
12/29/89
12/01/88
12/29/89
3.8.0 SYSTEM CIRCLES
11/28/88
3/22/90
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3.9.0 QUALITY CIRCLES PROGRAM
3/14/89
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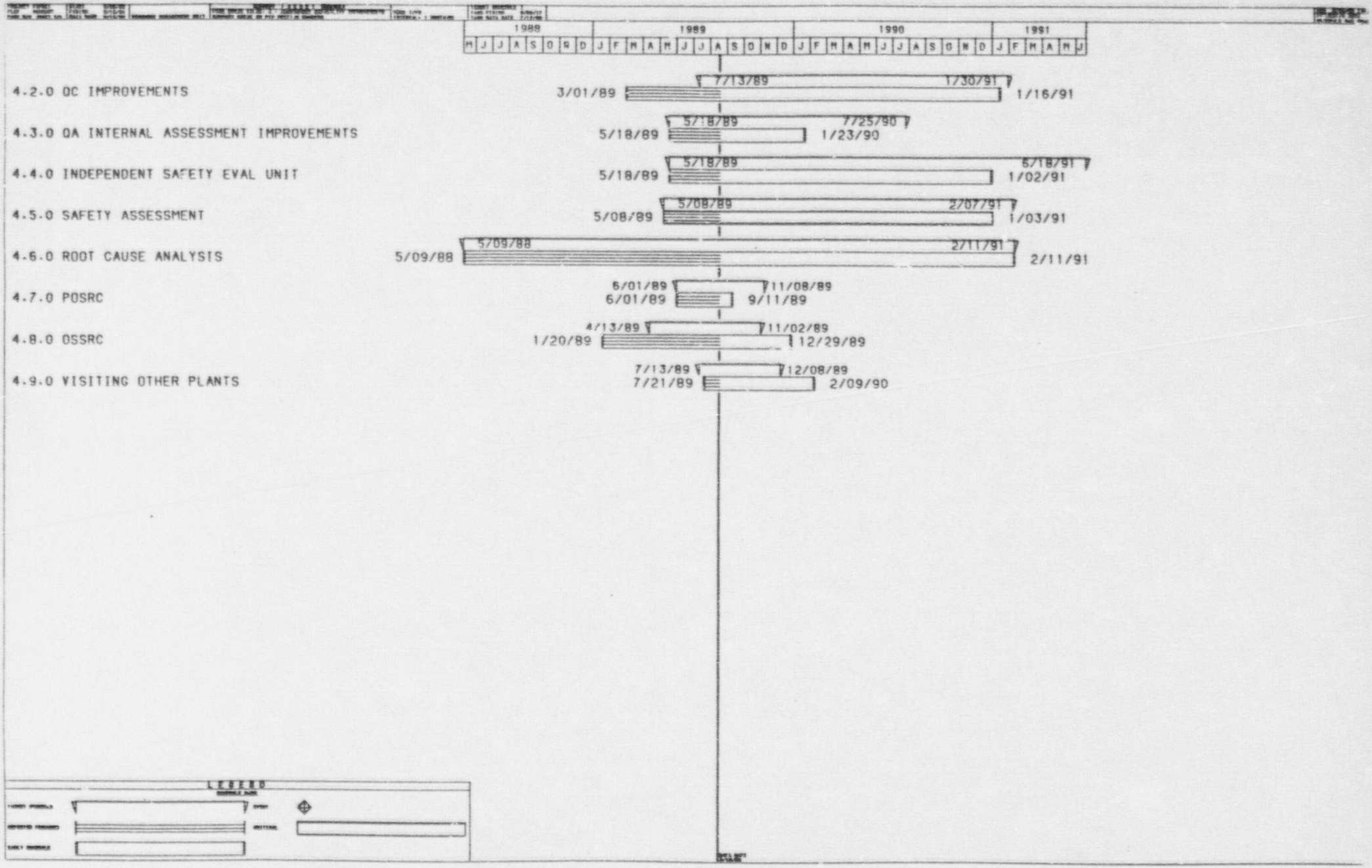
1/02/92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4.2.0 QC IMPROVEMENTS
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4.3.0 QA INTERNAL ASSESSMENT IMPROVEMENTS
5/18/89
7/25/90
5/18/89
1/23/90
4.4.0 INDEPENDENT SAFETY EVAL UNIT
5/18/89
5/18/91
5/18/89
1/02/91
4.5.0 SAFETY ASSESSMENT
5/08/89
2/07/91
5/08/89
1/03/91
4.6.0 ROOT CAUSE ANALYSIS
5/09/88
2/11/91
5/09/88
2/11/91
4.7.0 POSRC
6/01/89
11/08/89
6/01/89
9/11/89
4.8.0 OSSRC
4/13/89
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1/20/89
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4.9.0 VISITING OTHER PLANTS
7/13/89
12/08/89
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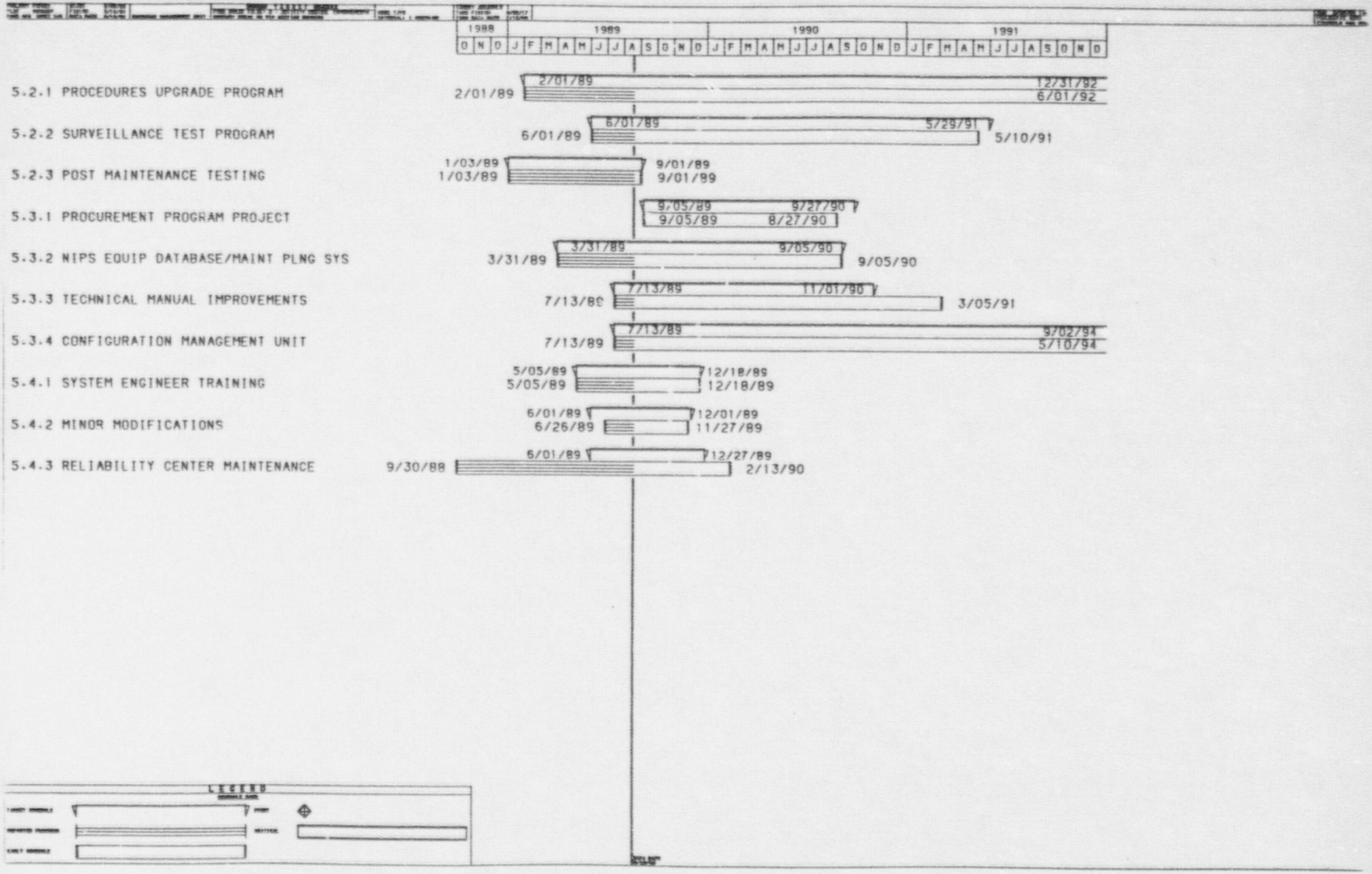
LEGEND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5.2.1 PROCEDURES UPGRADE PROGRAM
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5.2.2 SURVEILLANCE TEST PROGRAM
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5/29/91
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5.2.3 POST MAINTENANCE TESTING
1/03/89
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5.3.1 PROCUREMENT PROGRAM PROJECT
9/05/89
9/05/89
9/27/90
8/27/90
5.3.2 NIPS EQUIP DATABASE/MAINT PLNG SYS
3/31/89
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5.3.3 TECHNICAL MANUAL IMPROVEMENTS
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11/01/90
3/05/91
5.3.4 CONFIGURATION MANAGEMENT UNIT
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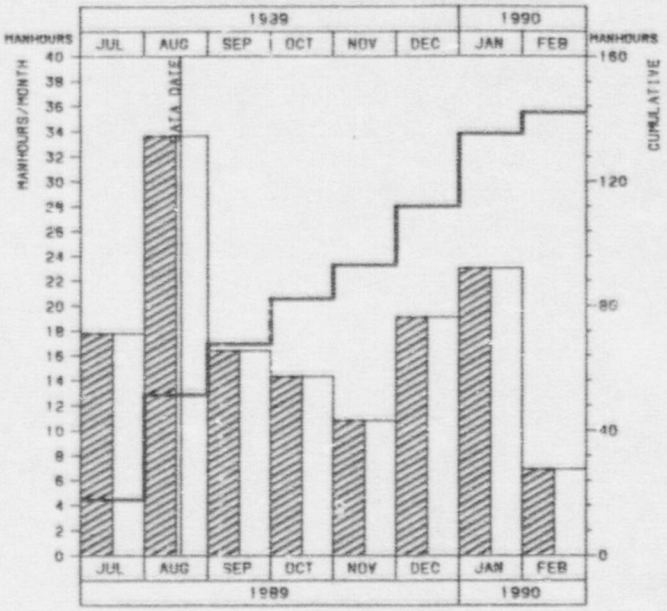
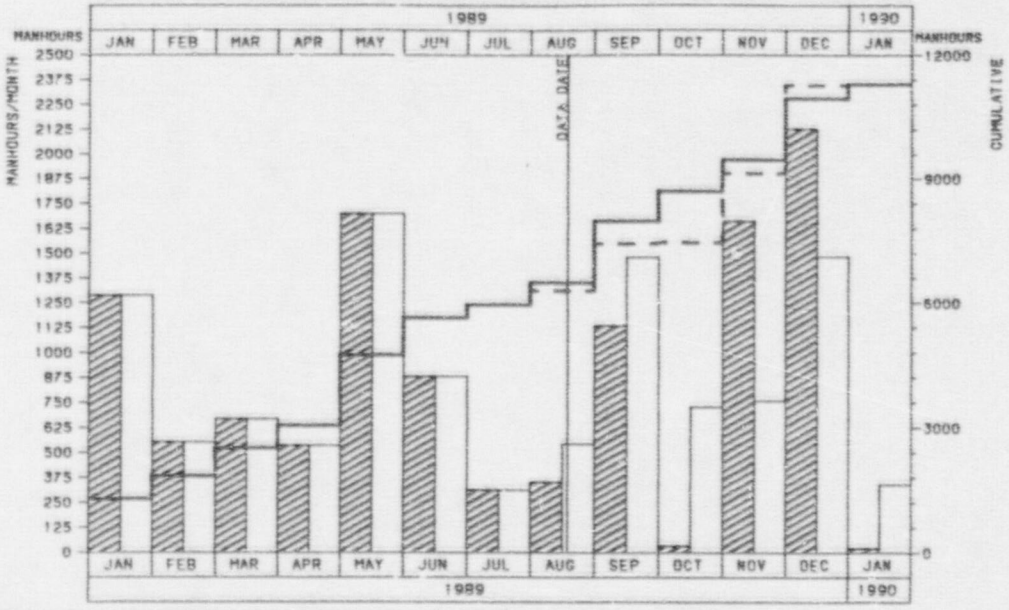
7/13/89
9/02/94
5/10/94
5.4.1 SYSTEM ENGINEER TRAINING
5/05/89
5/05/89
12/18/89
12/18/89
5.4.2 MINOR MODIFICATIONS
6/01/89
6/26/89
12/01/89
11/27/89
5.4.3 RELIABILITY CENTER MAINTENANCE
6/01/89
9/30/88
12/27/89
2/13/90
LEGEND

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
2.2.1 PERFORMANCE STANDARDS



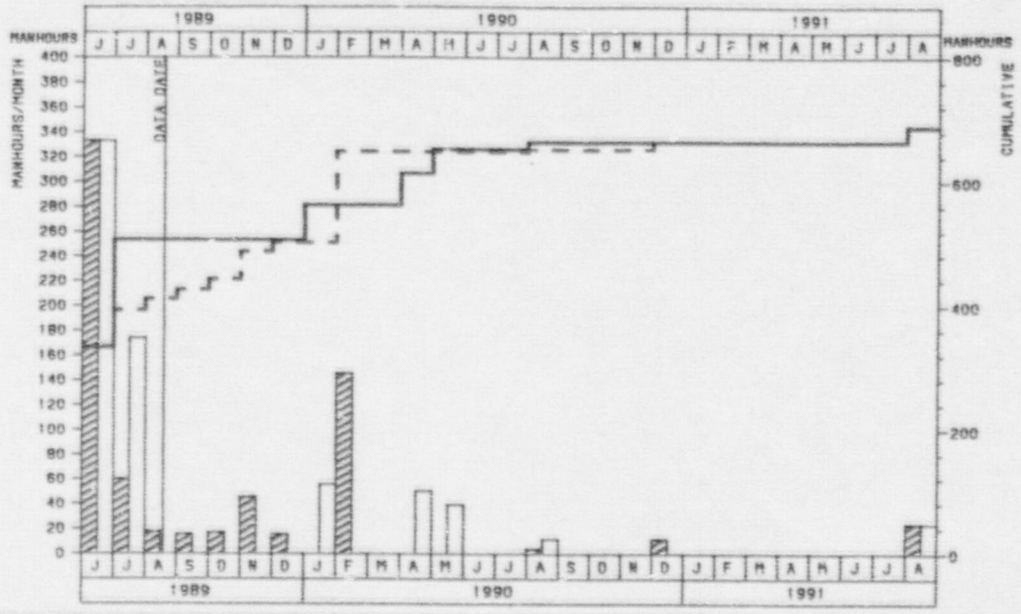
PLANNED	18	34	16	14	11	19	23	7
CURRENT	18	34	16	14	11	19	23	7

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
2.2.2 COMMUNICATIONS PLAN

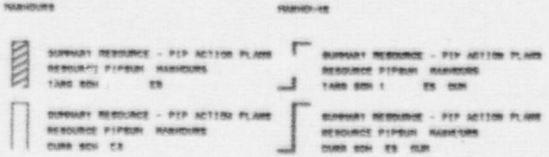


	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
PLANNED	1289	554	671	538	1700	882	313	353	1136	36	1663	2128	22
CURRENT	1289	554	671	538	1700	882	313	544	1482	728	760	1484	340

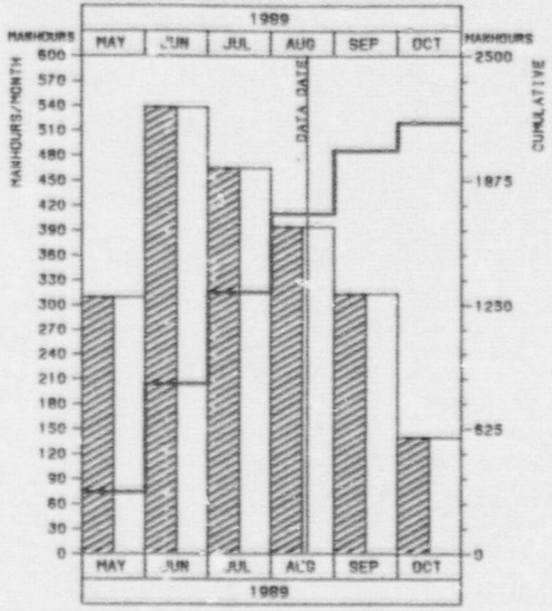
CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
2.3.0 NPP ISSUES BASED PLANNING



PLANNED	333	60	18	15	17	45	15	0	148	0	0	0	0	0	4	0	0	0	12	0	0	0	0	0	0	0	24
CURRENT	333	174	0	0	0	0	0	56	0	0	51	39	0	0	12	0	0	0	0	0	0	0	0	0	0	0	24

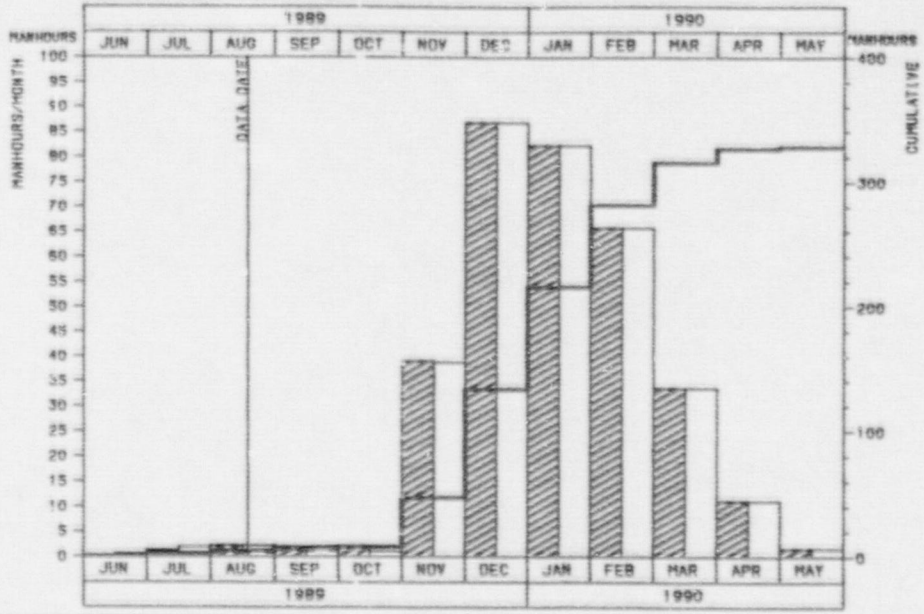


CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
2.5.1 COMMITMENT MANAGEMENT SYSTEM



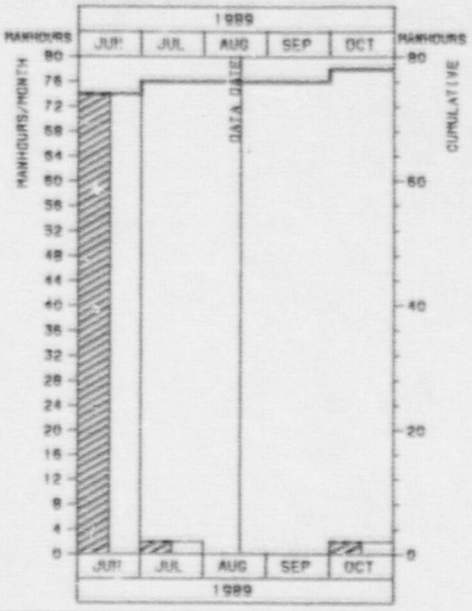
PLANNED	310	538	466	395	314	140
CURRENT	310	538	466	395	314	140

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.2.0 MANAGING ORGANIZATION & PCM CHANGE



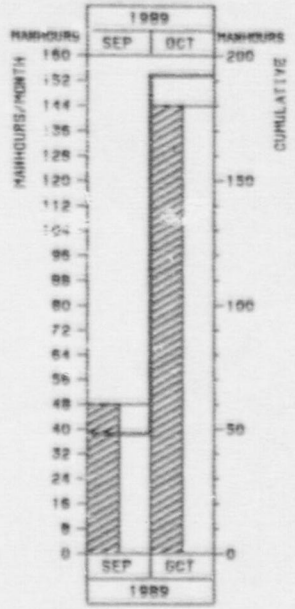
		JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
		1989							1990				
PLANNED		1	2	2	2	2	39	87	82	66	34	11	2
CURRENT	0	2	2	2	1	39	87	82	66	34	11	2	

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.3.0 LEADERSHIP CONFERENCES



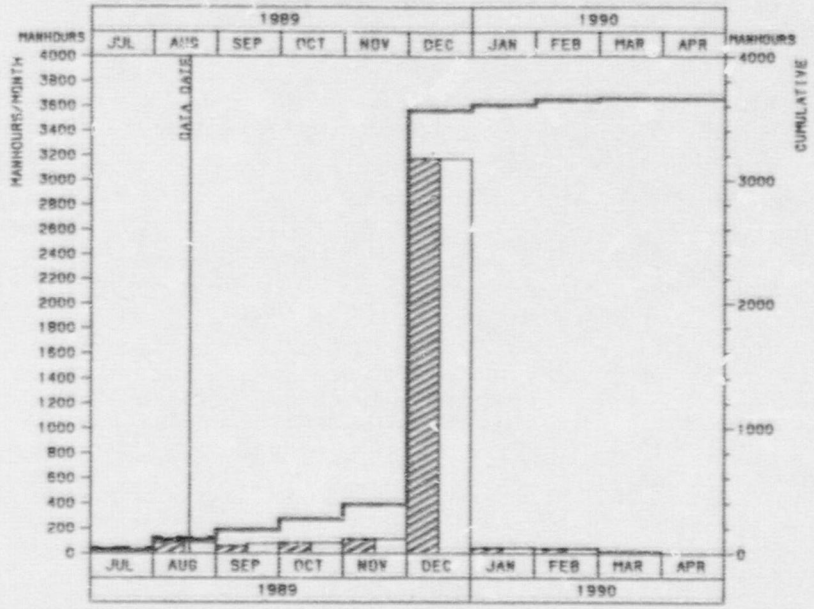
PLANNED	74	2	0	0	2
CURRENT	74	2	0	0	2

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.C.6 TEAM BUILDING WORKSHOPS



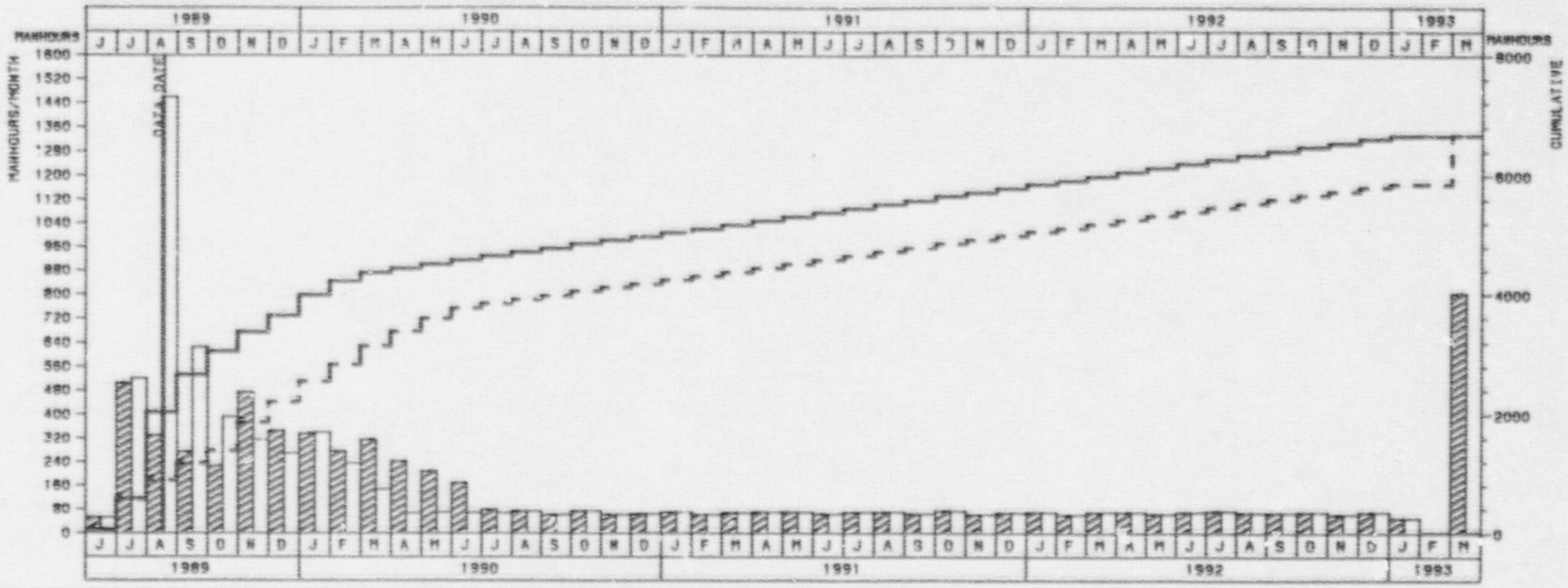
PLANNED	48	144
CURRENT	48	144

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.5.0 PROJECT MANAGEMENT



PLANNED	35	87	61	87	115	3173	45	39	17	1
CURRENT	24	84	79	87	115	3173	45	38	12	1

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.6.0 DAILY/OUTAGE WORK CONTROL



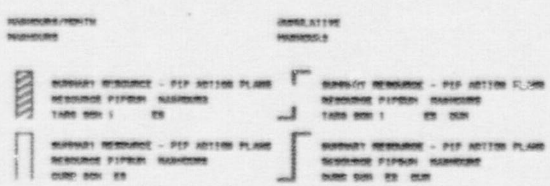
	1989						
	J	J	A	S	O	N	D
PLANNED	52	504	330	275	225	474	346
CURRENT	52	520	[illegible]	624	391	315	270

	1990											
	J	F	M	A	M	J	J	A	S	O	N	D
PLANNED	337	275	315	243	205	169	77	74	61	74	61	64
CURRENT	339	235	149	68	71	68	66	74	61	74	61	64

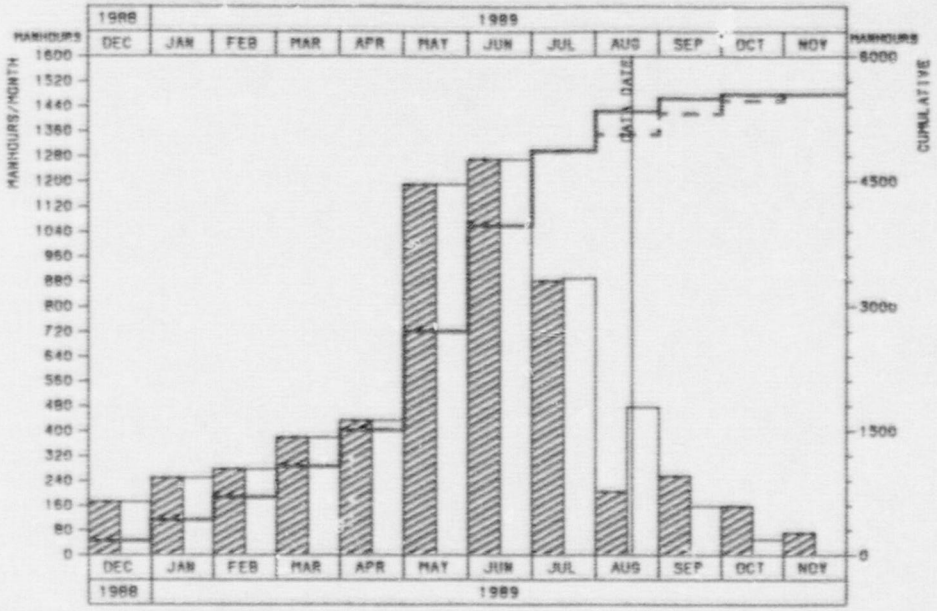
	1991											
	J	F	M	A	M	J	J	A	S	O	N	D
PLANNED	71	61	66	71	71	64	71	71	64	74	61	68
CURRENT	71	61	68	71	71	64	71	71	64	74	61	68

	1992											
	J	F	M	A	M	J	J	A	S	O	N	D
PLANNED	71	61	71	71	64	71	74	68	68	71	61	71
CURRENT	71	61	71	71	64	71	74	68	68	71	61	71

	1993		
	J	F	M
PLANNED	49	4	[illegible]
CURRENT	49	4	4

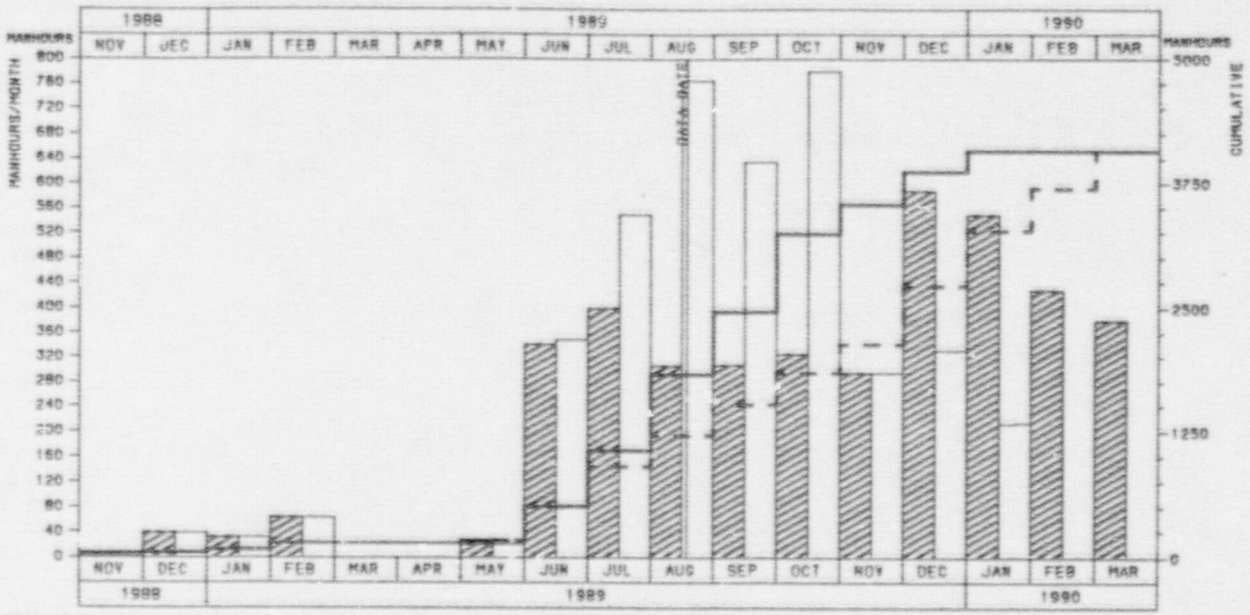


CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.7.0 ENGINEERING PLANNING



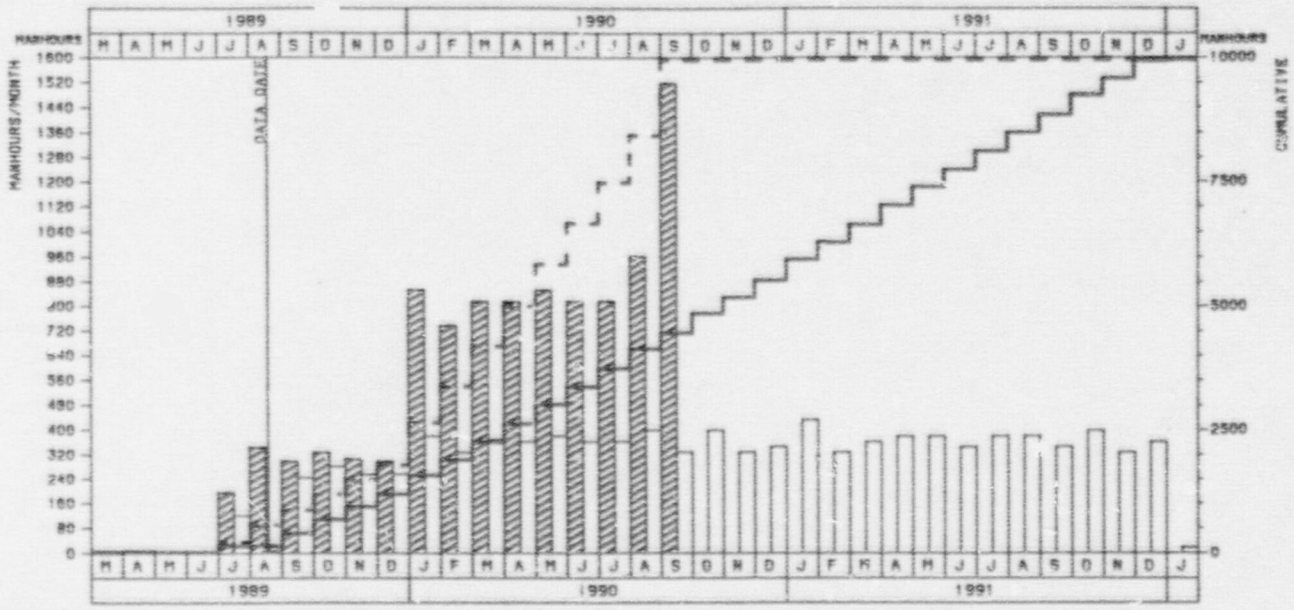
PLANNED	172	249	279	379	433	1190	1289	882	206	253	139	72
CURRENT	172	249	279	379	433	1190	1289	889	476	158	51	

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.8.0 SYSTEM CIRCLES



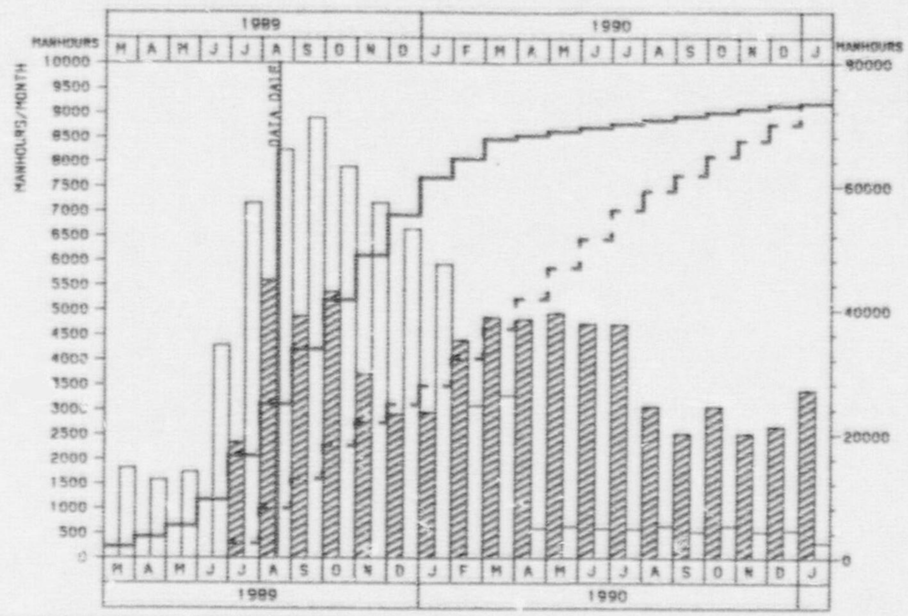
	NOV 1988	DEC 1988	JAN 1989	FEB 1989	MAR 1989	APR 1989	MAY 1989	JUN 1989	JUL 1989	AUG 1989	SEP 1989	OCT 1989	NOV 1989	DEC 1989	JAN 1990	FEB 1990	MAR 1990
PLANNED	7	38	32	64	0	0	20	341	398	306	307	324	295	587	549	428	380
CURRENT	7	38	32	64	0	0	20	348	548	765	635	780	295	331	213		

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
3.9.0 QUALITY CIRCLES PROGRAM



PLANNED	5	8	2	2	183	342	298	339	305	258	551	735	812	812	551	812	712	959	1014																		
CURRENT	5	8	2	2	119	7	243	282	258	258	378	327	387	382	378	382	382	384	327	396	327	345	431	327	382	378	378	345	378	378	345	386	327	382	17		

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.2.0 QC IMPROVEMENTS



	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J
PLANNED					2343	5611	4879	5307	3796	2861	2841	4361	4853	4816	4949	4723	4730	3064	2531	3084	2531	2664	3386
CURRENT	1830	1583	1740	4288	7169	8245	8889	7868	7166	6643	5833	3078	3283	810	839	810	598	653	543	853	540	588	312

MANHOURS/MONTH
MANHOURS

CUMULATIVE
MANHOURS

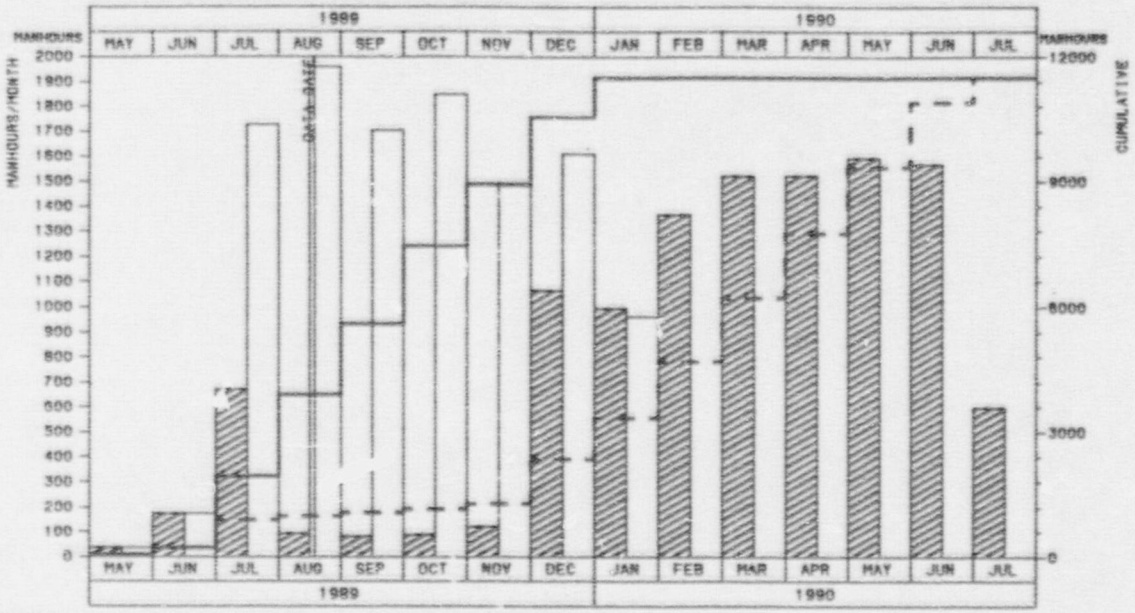
SUMMARY RESOURCE - PIP ACTION PLANS
RESOURCE PIPSUM MANHOURS
TARG SCH 1 ES

SUMMARY RESOURCE - PIP ACTION PLANS
RESOURCE PIPSUM MANHOURS
TARG SCH 1 ES CUM

SUMMARY RESOURCE - PIP ACTION PLANS
RESOURCE PIPSUM MANHOURS
CURR SCH ES

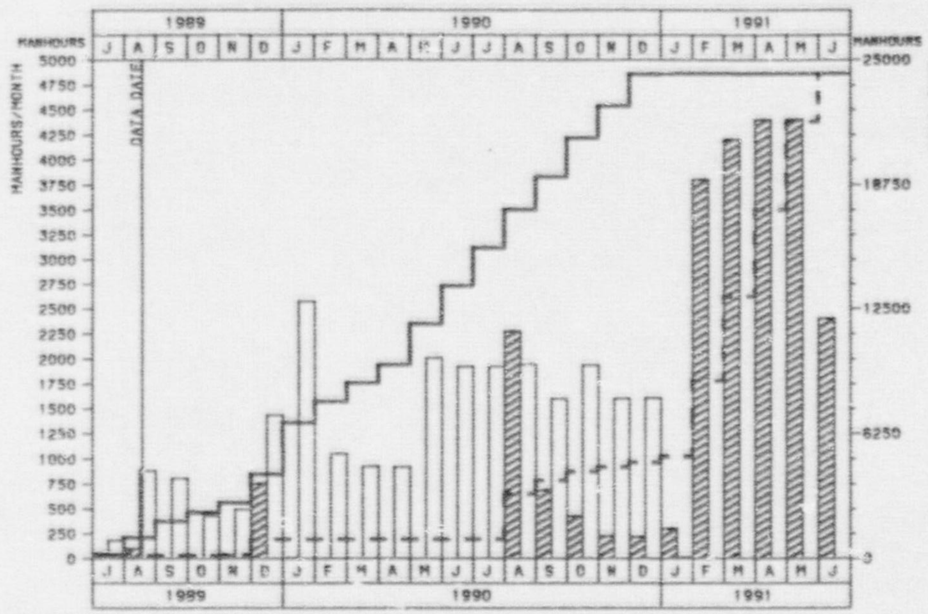
SUMMARY RESOURCE - PIP ACTION PLANS
RESOURCE PIPSUM MANHOURS
CURR SCH ES CUM

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.3.0 QA INTERNAL ASSESSMENT IMPROVEMENTS



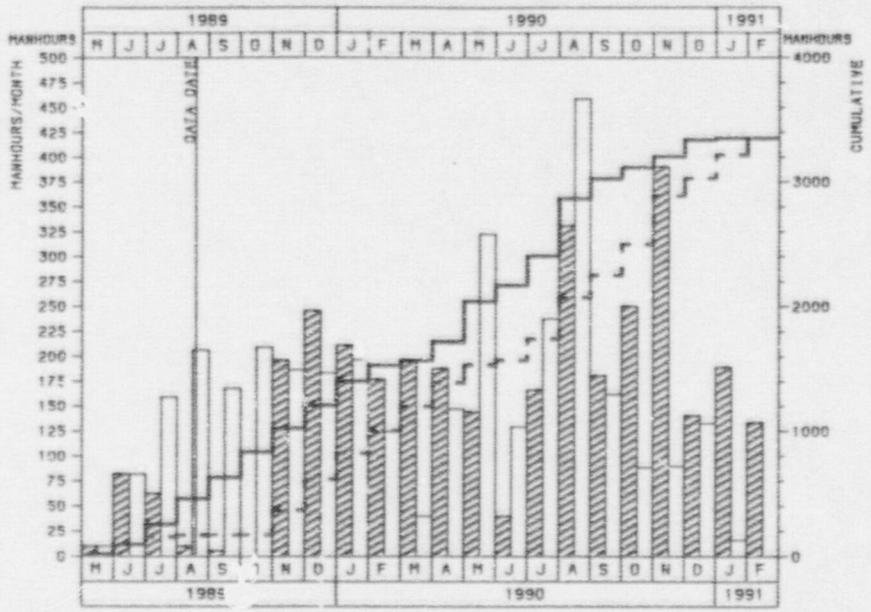
PLANNED	36	174	671	94	82	[illegible]	122	1064	993	1367	1522	1522	1594	1586	598
CURRENT	36	174	1726	1959	1704	1847	1482	1609	960						

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.4.0 INDEPENDENT SAFETY EVAL. UNIT



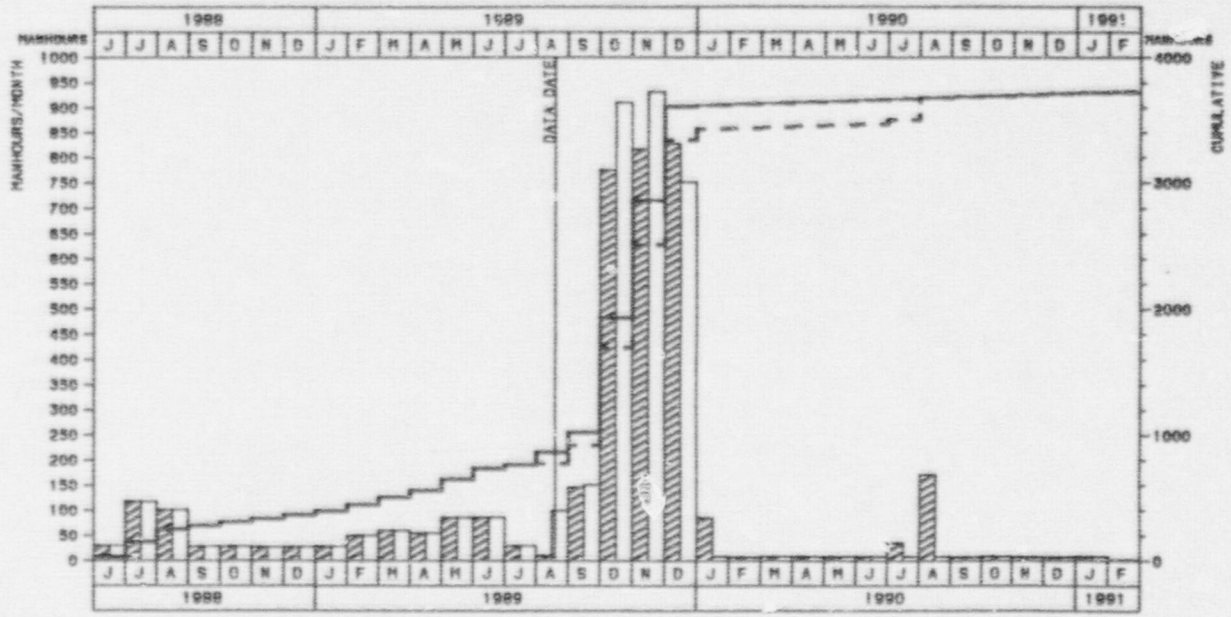
	1989						1990												1991					
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
PLANNED	25	105	0	0	33	757	9	0	0	0	0	0	0	[illegible]	693	[illegible]	226	221	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CURRENT	194	881	808	428	497	1441	[illegible]	[illegible]	728	520	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12					

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.5.0 SAFETY ASSESSMENT



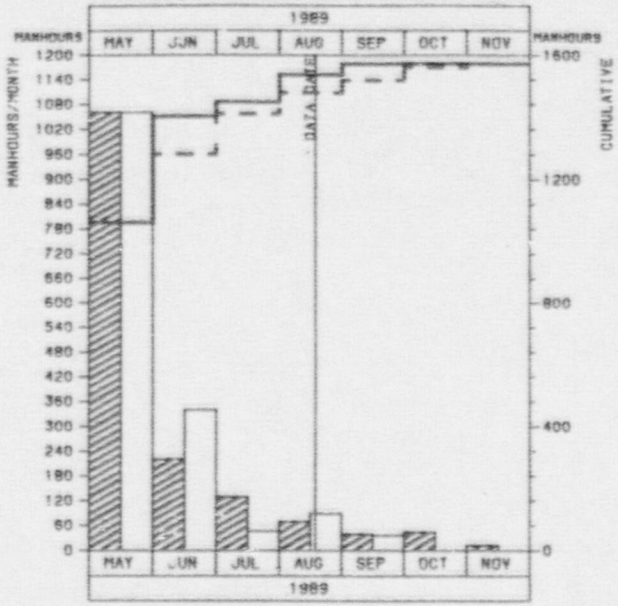
PLANNED	10	82	63	10	6	0	186	246	211	178	196	188	144	40	167	331	181	250	390	141	189	134
CURRENT	10	82	150	205	168	209	187	162	167	125	40	147	323	129	237	459	162	88	90	153	16	

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.5.0 ROOT CAUSE ANALYSIS

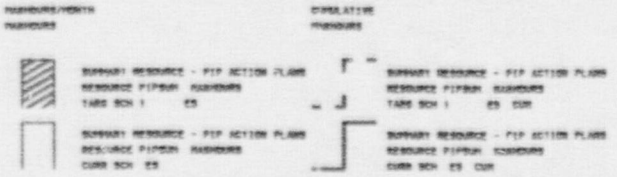


PLANNED	31	118	103	29	29	28	28	29	50	61	56	86	96	30	11	147	775	817	829	87	8	9	8	9	8	36	173	8	9	9	8	9	3
CURRENT	31	118	103	29	29	28	28	29	50	61	56	86	96	30	161	152	910	733	752	9	8	8	8	9	8	8	9	8	9	8	8	9	3

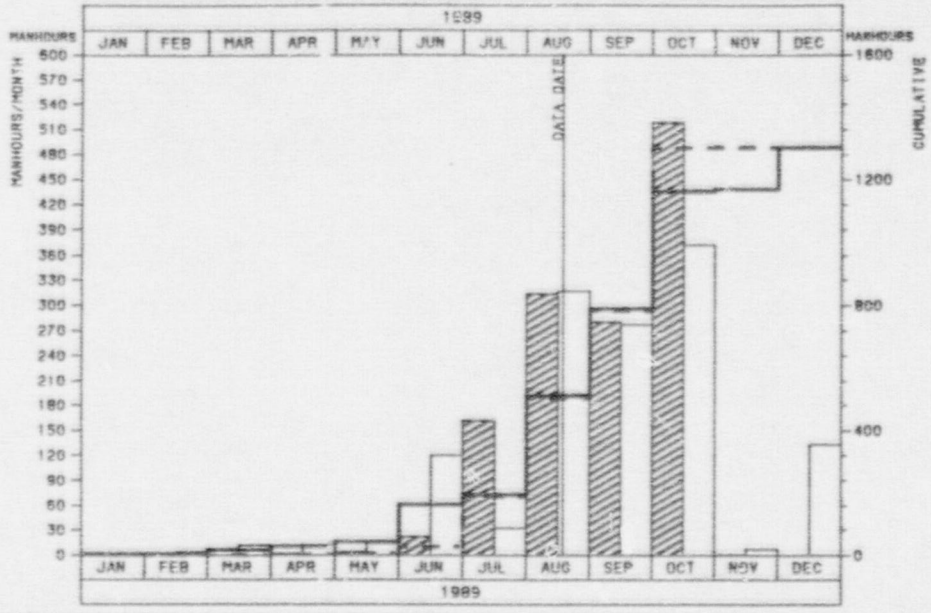
CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.7.0 POSRC



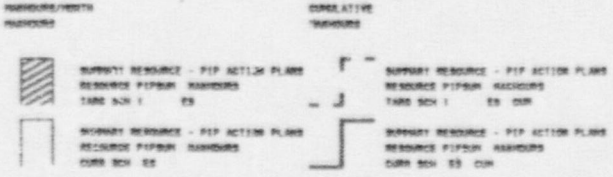
PLANNED	1060	220	129	68	39	43	12
CURRENT	1060	340	46	88	36		



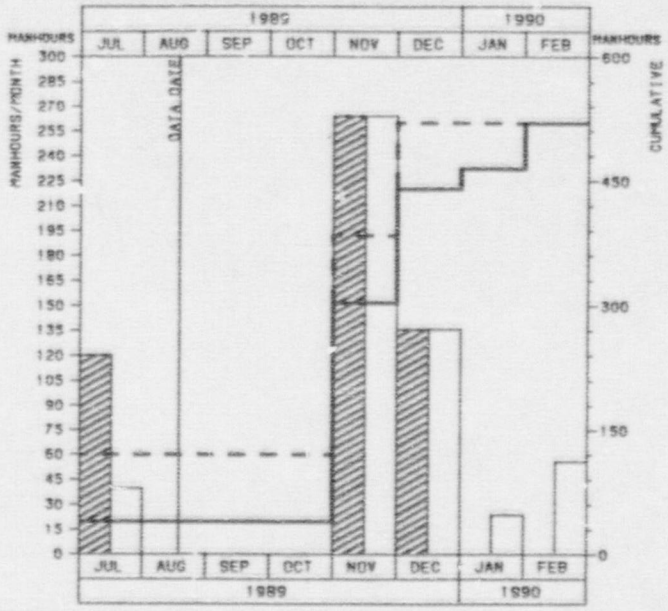
CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.8.0 OSSRC



PLANNED				2	3	22	162	314	280	518	0	
CURRENT	1	3	12	12	14	121	32	317	277	373	7	133

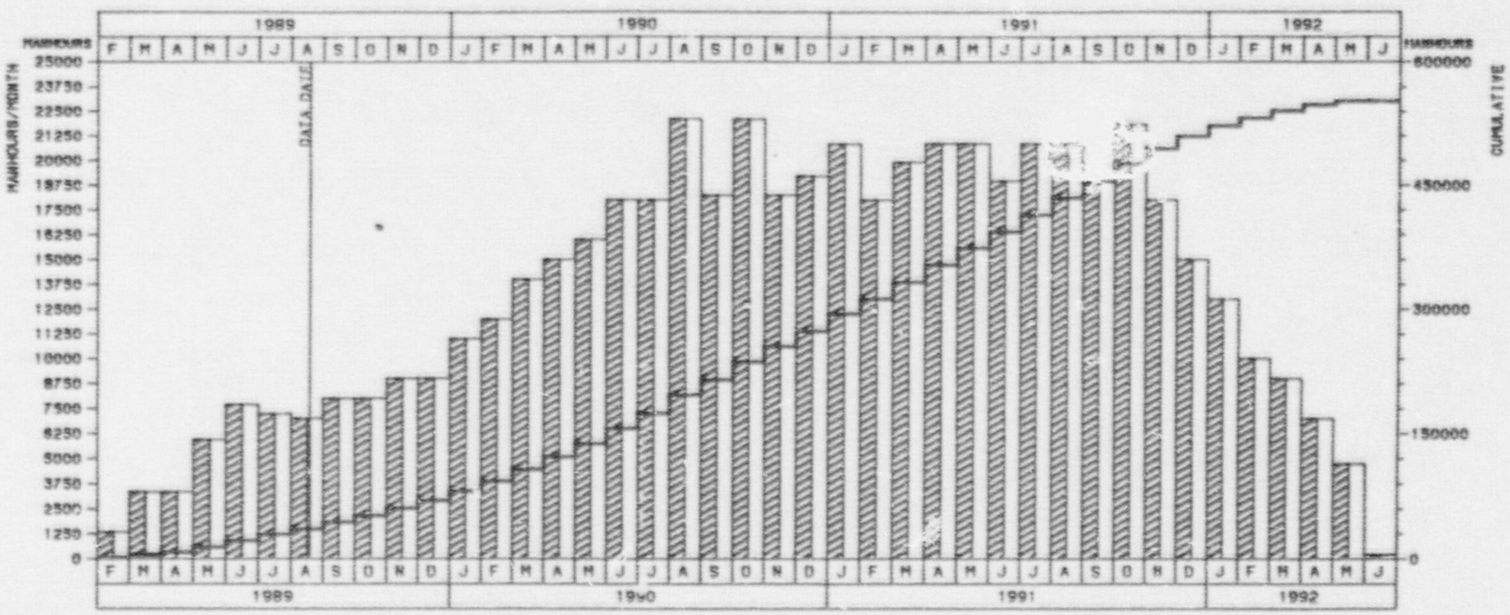


CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
4.9.0 VISITING OTHER PLANTS



PLANNED	120	0	0	0	264	136		
CURRENT	40	0	0	0	264	136	24	56

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.2.1 PROCEDURE UPGRADE PROGRAM

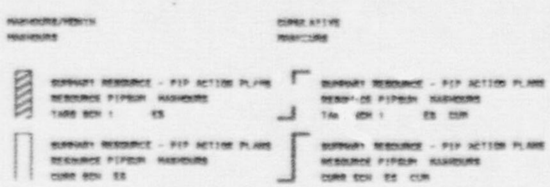


	1989 F	M	A	M	J	J	A	S	O	N	D
PLANNED	1364	[illegible]	[illegible]	[illegible]	[illegible]	7219	7000	[illegible]	[illegible]	[illegible]	[illegible]
CURRENT	1364	[illegible]	[illegible]	[illegible]	[illegible]	7219	7000	[illegible]	[illegible]	[illegible]	[illegible]

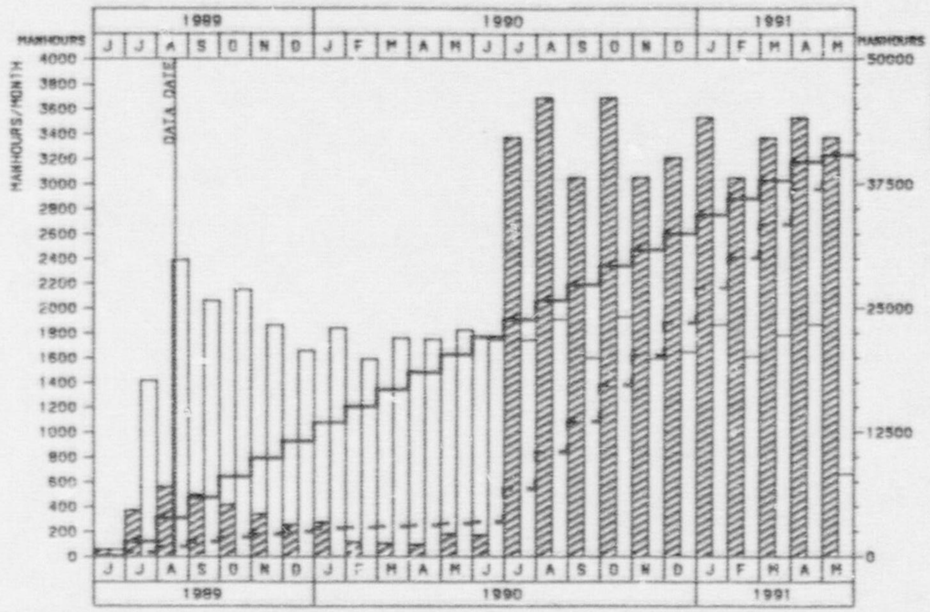
	1990 J	F	M	A	M	J	J	A	S	O	N	D
PLANNED	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CURRENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	1991 J	F	M	A	M	J	J	A	S	O	N	D
PLANNED	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CURRENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	1992 J	F	M	A	M	J
PLANNED	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	238
CURRENT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	238

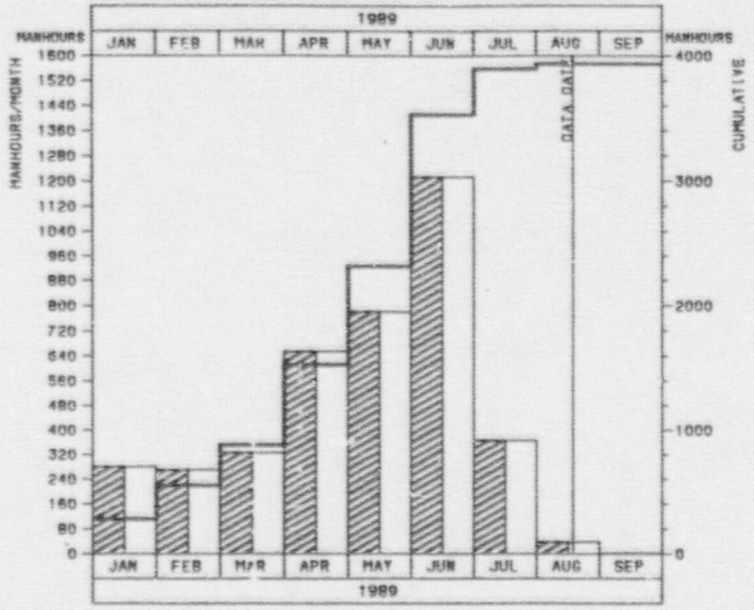


CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.2.2 SURVEILLANCE TEST PROGRAM



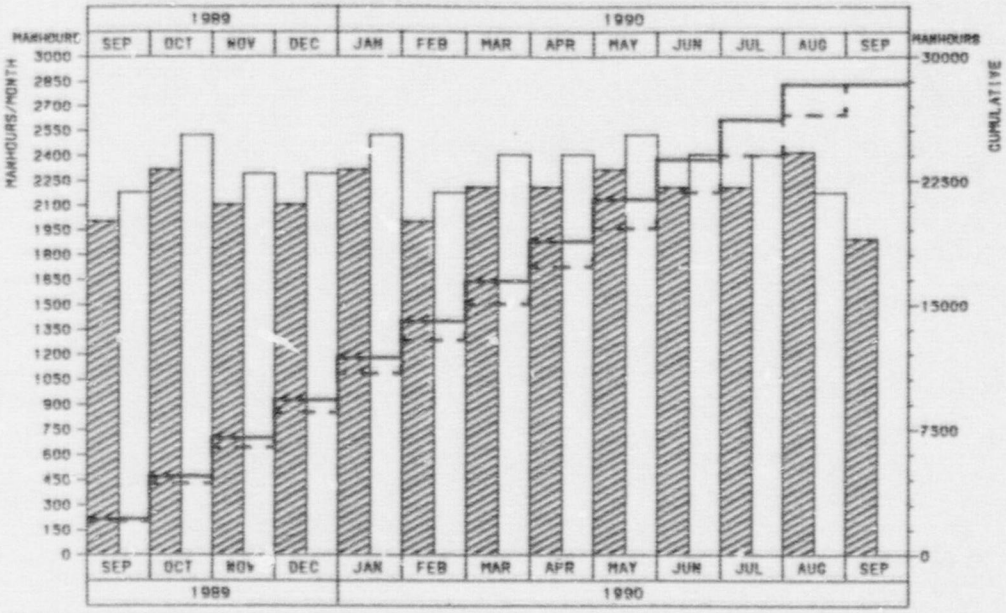
	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
	1989							1990												1991				
PLANNED	58	370	563	497	413	342	258	275	118	104	98	181	174	3373	3684	3053	3684	3053	3215	3532	3065	3373	3533	3373
CURRENT	58	1418	2363	2061	2152	1866	1664	1843	1594	1769	1754	1806	1748	1745	1913	1606	1934	1587	1654	1873	1618	1785	1871	865

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.2.3 POST MAINTENANCE TESTING



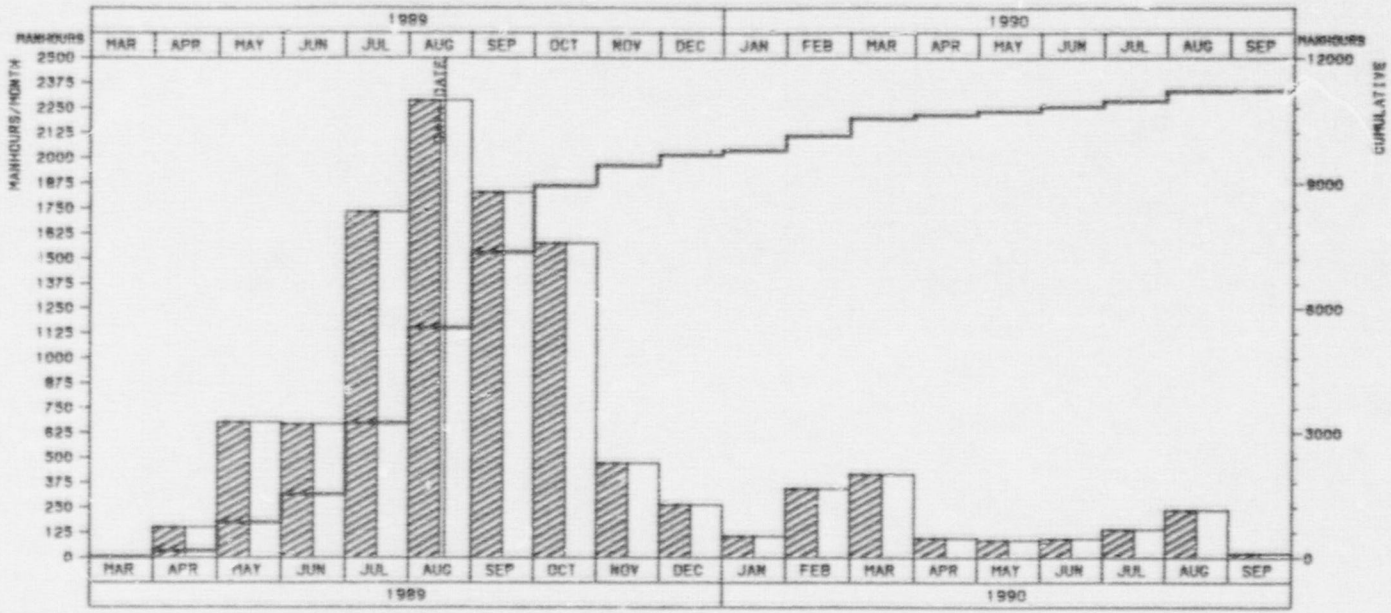
PLANNED	281	270	326	654	781	1215	366	39	2
CURRENT	281	270	326	654	781	1215	366	39	2

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.3.1 PROCUREMENT PROGRAM PROJECT



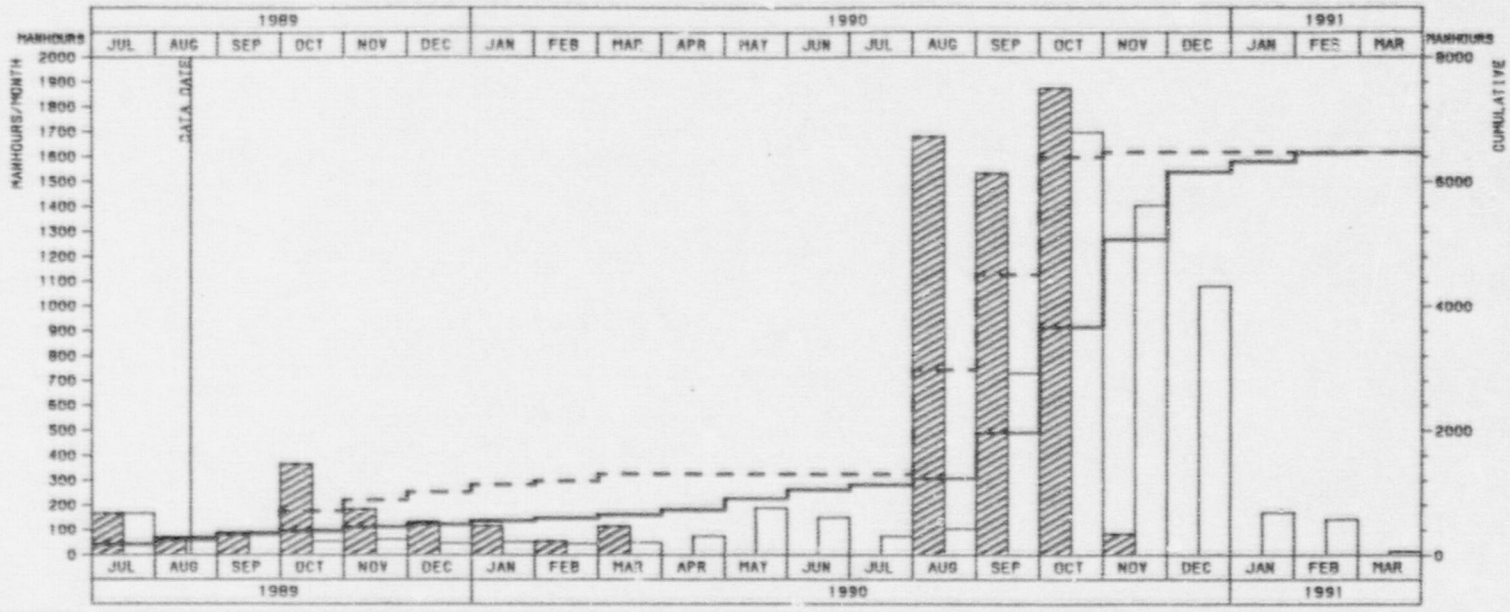
PLANNED	2002	2319	2108	2108	2319	2002	2213	2213	2319	2213	2213	2424	1897
CURRENT	2181	2525	2295	2295	2525	2181	2410	2410	2525	2410	2410	2181	

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.3.2 NIPS EQUIP DATABASE/MAINT PLNG SYSTEM



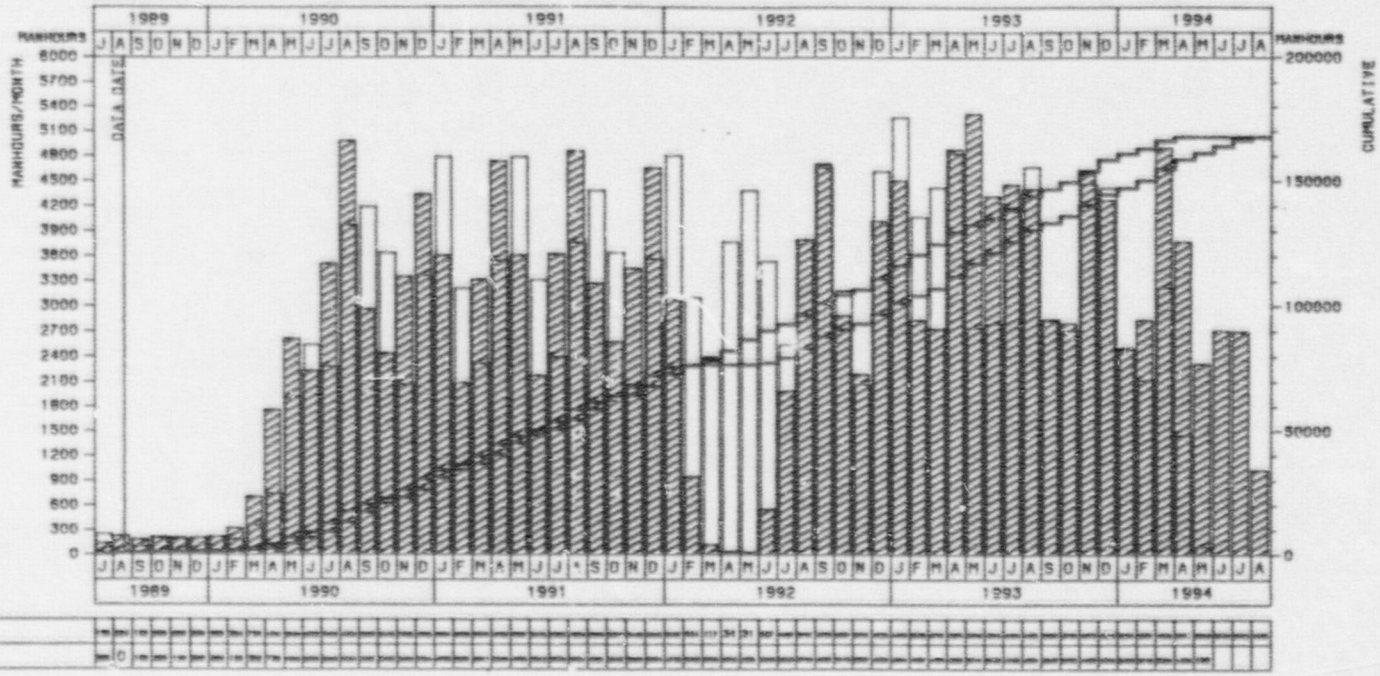
PLANNED	7	150	679	668	1733	2289	1831	1579	471	262	107	343	417	98	89	94	142	236	21
CURRENT	7	150	679	668	1733	2289	1831	1579	471	262	107	343	417	98	89	94	142	236	21

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
8.3.3 TECHNICAL MANUAL IMPROVEMENTS

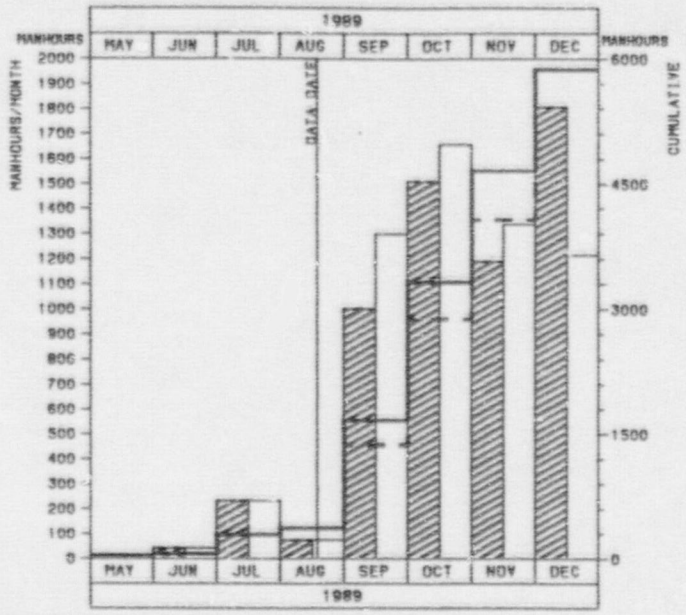


	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
PLANNED	164	70	91	365	183	133	118	55	115	0	0	0	0	1681	1533	1876	86				
CURRENT	164	70	91	55	62	48	52	45	50	75	188	150	75	104	730	1698	1403	1081	171	142	15

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.3.4 CONFIGURATION MANAGEMENT UNIT

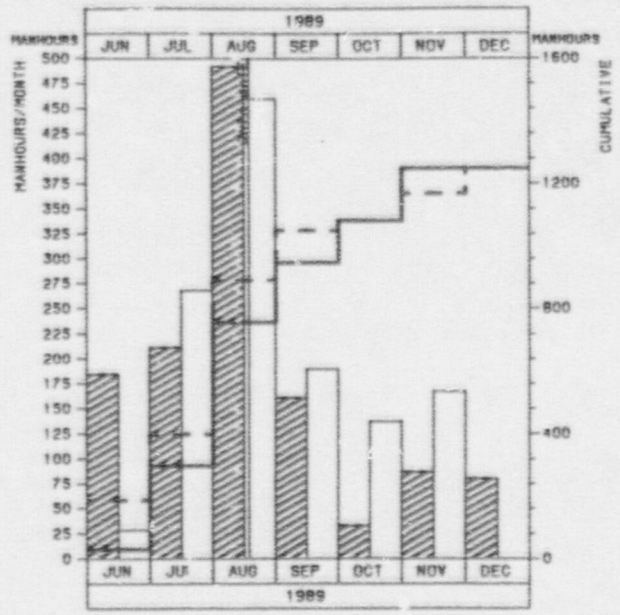


CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.4.1 SYSTEM ENGINEER TRAINING



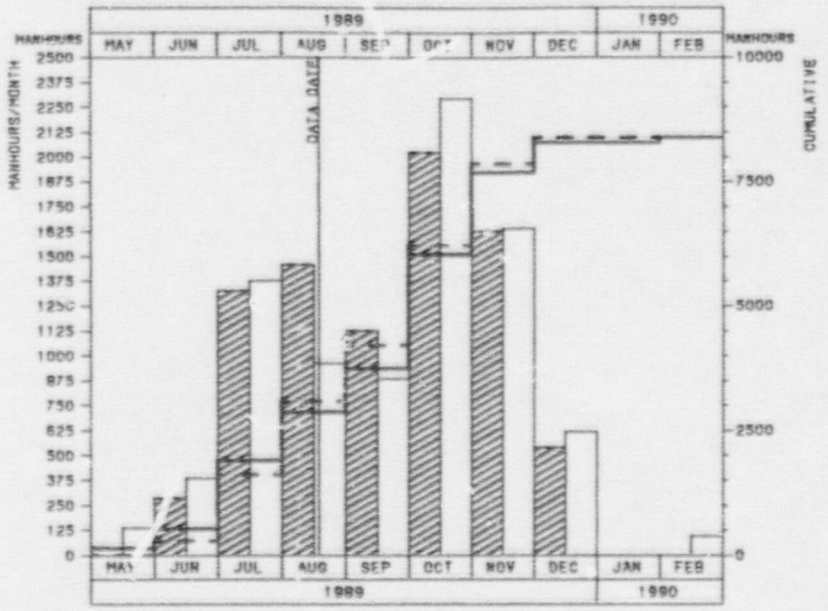
PLANNED	16	41	232	76	1001	1510	1190	1808
CURRENT	18	41	232	76	1297	1658	1338	1218

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.4.2 MINOR MODIFICATIONS



PLANNED	184	211	492	161	32	87	80
CURRENT	28	227	459	189	136	167	

CALVERT CLIFFS NUCLEAR POWER PLANT
PERFORMANCE IMPROVEMENT PLAN
5.4.3 RELIABILITY CENTER MAINTENANCE



PLANNED		286	1327	1459	1124	2023	1627	538		
CURRENT	137	388	1377	959	881	2290	1640	616	0	98