

Crystal River Unit 3
Monthly Trend Report
October 1996

9701030064 961031
PDR ADOCK 05000302
R PDR

MONTHLY TREND REPORT
Table of Contents

Title	Page
<u>SUMMARY</u>	
<u>HUMAN PERFORMANCE</u>	
Human Performance Success Index	1
Precursors Awaiting Resolution	2
Component not in Expected Position	3
Comments Awaiting Procedure Revision	4
Problem Report Corrective Action Steps	5
NOE Open REA's	6
NPTS Open REA's	7
<u>REGULATORY PERFORMANCE</u>	
CR-3 Violations vs. Region II	8
Ratio of NCV's to Total Violations	9
Licensee Event Reports (LER's)	10
<u>PLANT PRODUCTION AND RELIABILITY</u>	
Thermal Performance	11
Contaminated External Leakers	12
Core Contaminated Floor Space	13
Total Radioactive Waste Generated	14
Degraded Equipment Work Request Backlog	15
Corrective Maintenance Work Request Backlog	16
Repeat Maintenance	17
Overdue Control Sheets (CS) & Instrument Calibrations (IC)	18
Temporary Modifications	19
MAR Closures	20

SUMMARY

The CR-3 Monthly Trend Report for October is attached. This summary contains comments on various charts, such as sudden changes, adverse trends, positive comments, and additions or deletions. If you have any comments or suggestions, please contact Rodney Thompson at extension 3396.

Page 1 (Human Performance Success Index) - The index rose due to the decrease in the number of "occurrences" (Problem Reports & Precursor Cards) and an increase in the number of opportunities (hours worked) during October. NSAT will be evaluating this indicator and revising it as necessary to reflect the new corrective action process now in place. The past indicators showing causes and condition codes have been dropped. New indicators will be considered as sufficient coding data is collected under the new process.

Page 2 (Precursors Awaiting Resolution) - The backlog showed a significant decrease in October due to a strong focused effort by all departments to close precursor cards, especially Engineering. A list of open Precursor Cards was mailed with a cover memo to all affected Directors, Managers, and Supervisors on 9/6/96 in order to raise the level of awareness towards this trend. This appears to have been effective, but a strong effort must still be made to address the older Precursor Cards.

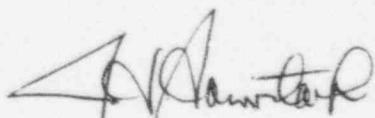
Page 3 (Component Not in Expected Position) - There were ZERO instances of components found in an unexpected position during the month of October. This improvement is directly attributed to the recent implementation of concurrent verification for all manipulations. Other contributing factors are procedure writers watching for conflicts in valve positions between procedures, and the increased accountability for use or non-use of STAR by individuals.

Page 5 (Problem Report Corrective Action Steps) - This indicator has been revised to track the number of steps overdue at the end of the month as well as the number of steps extended during the month. The goal for overdue steps is zero. The numbers have increased significantly. A strong effort must be made to address the open steps on past Problem Reports as we transition to the new corrective action process.

Page 7 (NPTS Open REA's) - This indicator was added by Engineering to reflect the trend of REA's for which NPTS is responsible. This was not captured in the past REA indicator which only reflected those REA's residing with the design engineering group.

Page 17 (Repeat Maintenance) - A new data point trended on this indicator shows the percentage of work requests that planners have identified as "degraded" that are also identified as Repeat Maintenance. This indicator is not the same as repetitive failures under the Maintenance Rule. This indicator is more broad based, looking at component level rework. Repetitive failures under the Maintenance Rule are only those failures that result in a loss of system or train level function. NSAT is working with Engineering to develop performance indicators related to the Maintenance Rule.

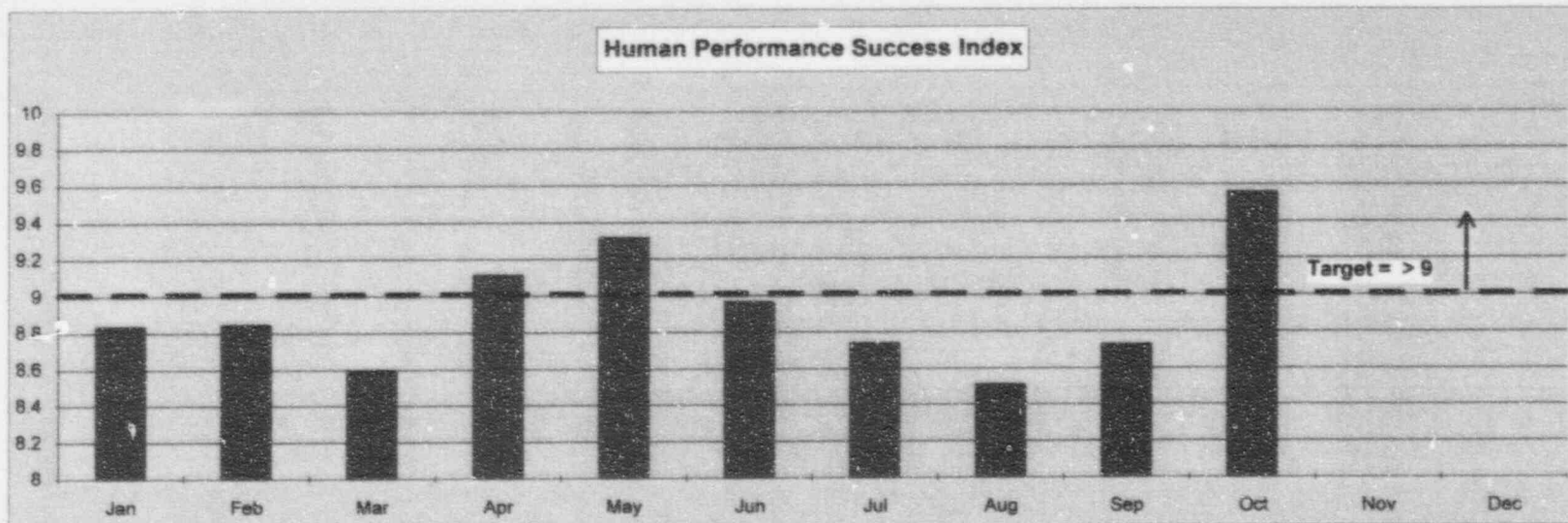
Maintenance Shop Schedule Performance Indicator - This indicator has been discontinued until startup. It is currently being redefined due to changes in the preparation and implementation of the work process at CR-3. New indicators are being developed and are expected to be in the 1997 trend reports.



J. S. Baumstark

Human Performance

CR-3 Monthly Performance Trend - October 1996



Index	
Jan.	- 8.836
Feb.	- 8.846
Mar.	- 8.591
Apr.	- 9.118
May	- 9.318
Jun.	- 8.967
Jul.	- 8.739
Aug.	- 8.277
Sep.	- 8.728
Oct.	- 9.560
Nov.	
Dec.	

Definition of the Performance Indicator

This indicator is a measure of the number of human performance events (Problem Reports and Precursor Cards with cause/condition codes that fall into the human performance category), divided by the number of opportunities for events to occur (number of hours worked), and normalized to fit a 1 - 10 scale on the chart.

Performance Measurement / Goal

The target is to achieve and maintain the success index > 9.

Analysis / Summary

During October, there were 61 occurrences designated as "Human Performance" (down from 107 last month), of which 19 were Problem Reports (down from 29 last month). The index rose due to the decrease in the number of "occurrences" (Problem Reports & Precursor Cards) and an increase in the number of opportunities (hours worked) during October. There were no Problem Reports under Human Performance in October with a Severity Level assigned.

NSAT will be looking closely at this indicator to determine how to best trend "Human Performance" in 1997, now that the new procedure (CP-111) has been issued and the new corrective action process has been implemented. The old chart for "human performance condition codes" has been dropped. As the new system of coding progresses and sufficient data is received, new trending charts will be considered.

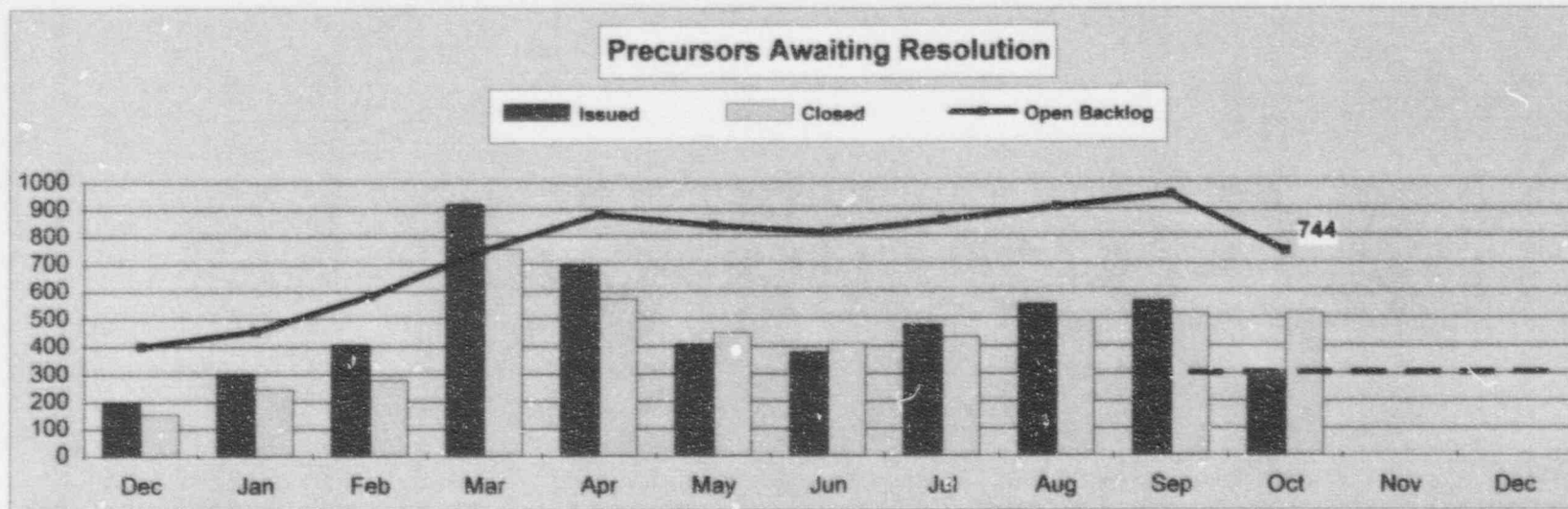
Responsible:

R. L. Thompson, Senior Nuclear QA Engineer

Data Collected By:

Gayle Widell, Safety Assessment Specialist

CR-3 Monthly Performance Trend - October 1996



Backlog	
Jan.	- 457
Feb.	- 584
Mar.	- 751
Apr.	- 880
May	- 839
Jun.	- 814
Jul.	- 857
Aug.	- 908
Sep.	- 952
Oct.	- 744
Nov.	
Dec.	

Definition of the Performance Indicator

This indicator tracks the number of Precursor Cards issued each month, the number of cards closed each month, and the number of open "backlog" cards. It also shows the number of open Precursor Cards greater than 30 days old in the "Analysis/Summary" below.

Performance Measurement / Goal

An open backlog target of < 300 has been established for 1996. The target was chosen based on average number of precursor cards issued per month in 1995.

Analysis / Summary

The backlog showed a significant decrease in October due to a strong focused effort by all departments to close their precursor cards, especially Engineering. The number of PC's greater than 30 days old rose to 75% of the total. 74% of these (394) are in the Engineering area. A list of open Precursor Cards was mailed with a cover memo to all affected Directors, Managers, and Supervisors on 9/6/96 in order to raise the level of awareness towards this trend. This appears to have been effective, but a strong effort must still be made to address the older Precursor Cards.

OPEN BACKLOG THAT IS GREATER THAN 30 DAYS OLD:

January ---- 208 of 457 = 46%	July ----- 531 of 857 = 62%
February --- 256 of 584 = 44%	August ----- 592 of 908 = 65%
March ----- 314 of 751 = 42%	September - 582 of 952 = 61%
April ----- 525 of 880 = 60%	October ---- 538 of 714 = 75%
May ----- 532 of 839 = 64%	
June ----- 644 of 814 = 79%	

Responsible:

R. L. Thompson, Senior Nuclear QA Engineer

Page: 2

Data Collected By:

Gayle Widell, Safety Assessment Specialist

CR-3 Monthly Performance Trend - October 1996



Instances	
Jan.	- 0
Feb.	- 1
Mar.	- 1
Apr.	- 2
May	- 2
Jun.	- 1
Jul.	- 2
Aug.	- 3
Sep.	- 3
Oct.	- 0
Nov.	
Dec.	

Definition of the Performance Indicator

This indicator is derived by reviewing all Problem Reports and Precursor Cards for those addressing components found in an unexpected position.

Performance Measurement / Target

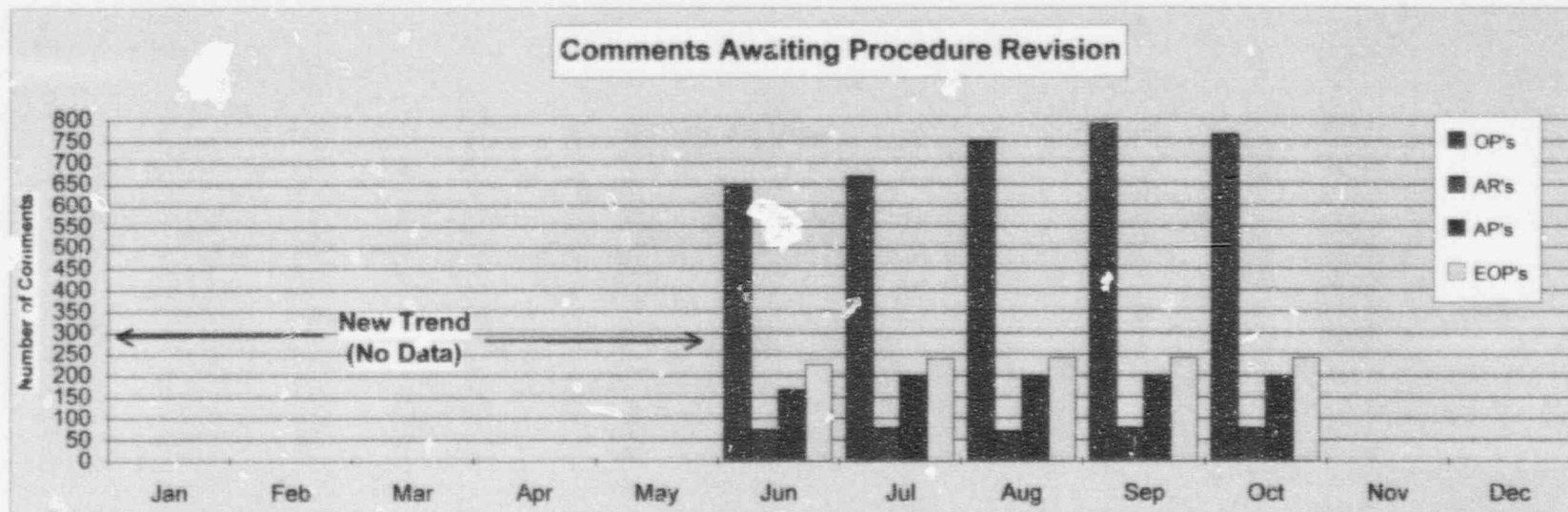
The target is to have zero events, but there is no specific goal set, as this is a type of "precursor" trend to avoid an event that would affect plant operation. For example, an increasing slope would be an indication that the probability of a more significant problem has increased.

Analysis / Summary

There were ZERO instances of components found in an unexpected position during the month of October.

This improvement is directly attributed to the recent implementation of concurrent verification for all manipulations. Other contributing factors are procedure writers watching for conflicts in valve positions between procedures, and increased accountability for use or non-use of STAR by individuals.

CR-3 Monthly Performance Trend - October 1996



Total
Jun. - 1110
Jul. - 1183
Aug. - 1260
Sep. - 1309
Oct. - 1286
Nov.
Dec.

Definition of the Performance Indicator

This indicator tracks the number of open items that require a revision to Operating Procedures (OP's), Annunciator Response Procedures, (AR's), Abnormal Procedures (AP's), and Emergency Operating Procedures (EOP's).

Performance Measurement / Goal

The goal is a continuing downward trend. The desired "maintenance" level of open items is to be determined as the 2 year action plan begins to reach conclusion.

Analysis / Summary

The number of open comments requesting a procedure revision is high at this time. Many have been addressed and are awaiting review and approval from the Plant Review Committee (PRC). EOP's will drop in November, as PRC is scheduled at the end of the month to review many completed changes. A plan is being developed to eliminate AP comments in 1997.

Efforts are currently underway to reduce the backlog of comments for OP's and AR's. The numbers had been rising due to focused efforts to extract comments from other areas (such as desk folders, etc.), and to place all comments into NUPOST for ease of tracking and trending. The drop in numbers this month can be attributed to the completion of that effort and the approval of procedure revisions.

Open Items

	OP's	AR's	AP's	EOP's
June	644	74	167	225
July	669	78	198	238
Aug.	748	71	200	241
Sep.	791	77	200	241
Oct.	767	78	200	241
Nov.				
Dec.				

Responsible:

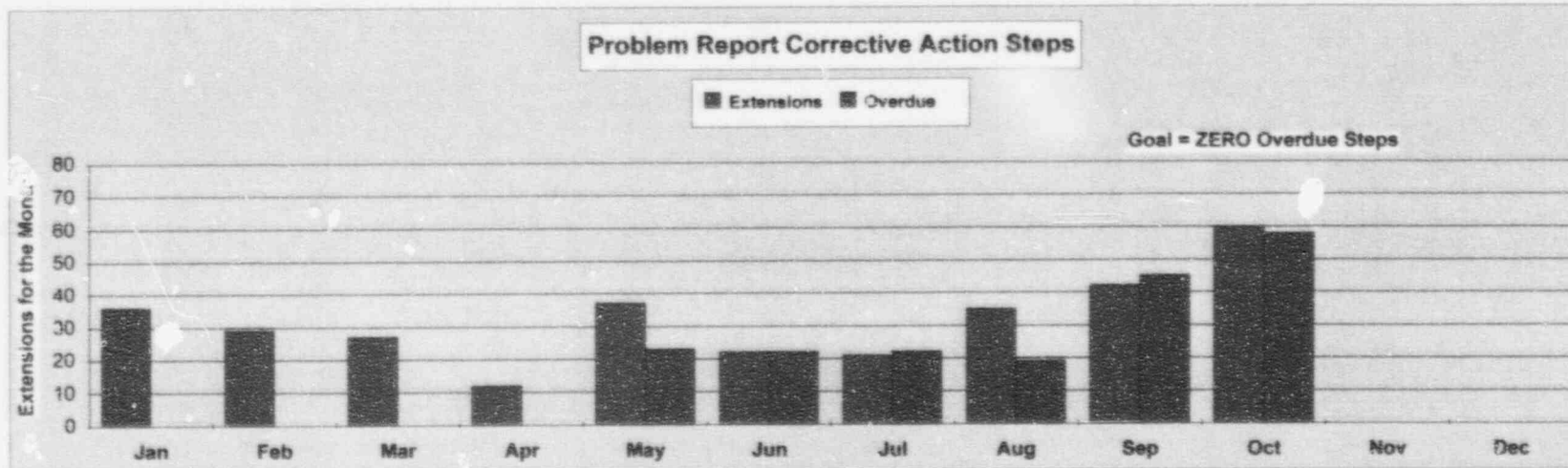
R. W. Davis, Assistant Plant Director Operations & Chemistry

Page: 4

Data Collected By:

R. L. Thompson, Senior Nuclear Quality Assurance Engineer

CR-3 Monthly Performance Trend - October 1996



Overdue

Jan - N/A
 Feb - N/A
 Mar - N/A
 Apr - N/A
 May - 23
 Jun - 22
 Jul - 22
 Aug - 19
 Sep - 45
 Oct - 58
 Nov -
 Dec -

Definition of the Performance Indicator

This indicator shows the number of corrective action steps in Problem Reports that are extended during the month and the number of steps that were overdue at the end of the month.

Performance Measurement / Goal

The first goal is to maintain the percent of steps extended to < 5% of the total number of open corrective action steps.
 The second goal is to have zero steps overdue at the end of the month. The table below shows the percentages of the number of extensions and overdue steps.

Analysis / Summary

This indicator has been revised to show extensions during the month and the number of steps overdue at the end of the month, broken down by department. The number of steps overdue is a dynamic number that changes from day to day. The data will be collected about one week into the following month for consistency.

- There were 60 out of 887 steps (6.8%) extended in October.
- There were 58 out of 887 steps (6.5%) overdue at the end of the month.

- Of 887 open steps, Engineering/Projects/NPTS are responsible for 500 steps (56%) and Operations/Maintenance/Work Controls are responsible for 262 steps (30%).

PR-96-0337, Untimely Resolution of Problem Reports, was issued to address the concern of numerous overdue steps.

PROBLEM REPORT CORRECTIVE ACTION STEP STATUS - NOVEMBER 12th

DEPARTMENT	Steps	Extensions	% Extensions	Overdue	% Overdue
Materials & Controls	7	0	0.0%	0	0.0%
Nuclear Operations	121	9	7.4%	2	1.7%
Nuclear Operations Training	21	0	0.0%	0	0.0%
Quality Programs	27	2	0.0%	2	7.4%
Nuclear Plant Tech Support	214	12	5.6%	18	8.4%
Nuclear Engineering Programs	37	4	10.8%	0	0.0%
Nuclear Operations Engineering	249	16	6.4%	29	11.6%
Site Support	70	5	7.1%	5	7.1%
Maintenance	84	5	6.0%	1	1.2%
Work Controls/Outages	57	7	12.3%	1	1.8%
TOTAL	887	60	6.8%	58	6.5%

Responsible:

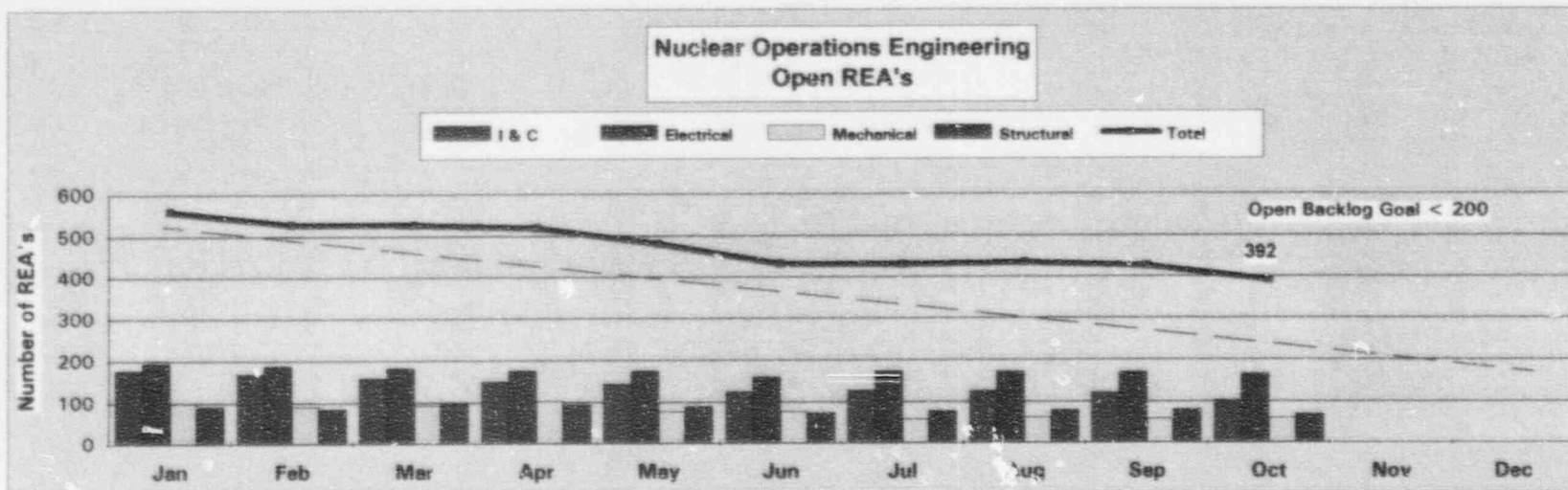
D. T. Wilder, Manager Nuclear Safety Assessment Team

Page 5

Data Collected By:

R. L. Thompson, Senior Nuclear QA Engineer

CR-3 Monthly Performance Trend - October 1996



Total	
Jan.	559
Feb.	528
Mar.	526
Apr.	518
May.	481
Jun.	432
Jul.	431
Aug.	435
Sep.	426
Oct.	392
Nov.	
Dec.	

Definition of the Performance Indicator

This indicator provides data that is intended to reflect the backlog of Requests for Engineering Assistance (REA's) in Nuclear Engineering Design in a particular month. This indicator provides a measurement of the effectiveness of Nuclear Engineering Design to respond to technical questions, requests for information/assistance, and suggestions/requests for plant modifications.

Performance Measurement / Goal

The 1996 target is an open backlog of < 200 REA's.

Analysis / Summary

The backlog is large at this time due to ongoing engineering activities that require significant resources. The trend continues to move toward the goal. Additional management oversight will be required to continue this downward trend.

	I&C	ELEC	MECH	STRUCT	TOTAL
Jan	177	193	95	90	559
Feb	168	187	89	84	528
Mar	157	181	92	96	526
Apr	148	175	102	93	518
May	143	174	76	88	481
Jun	124	159	77	72	432
Jul	126	172	57	76	431
Aug	125	171	61	78	435
Sep	121	169	57	79	426
Oct	101	165	58	68	392
Nov					
Dec					

Responsible:

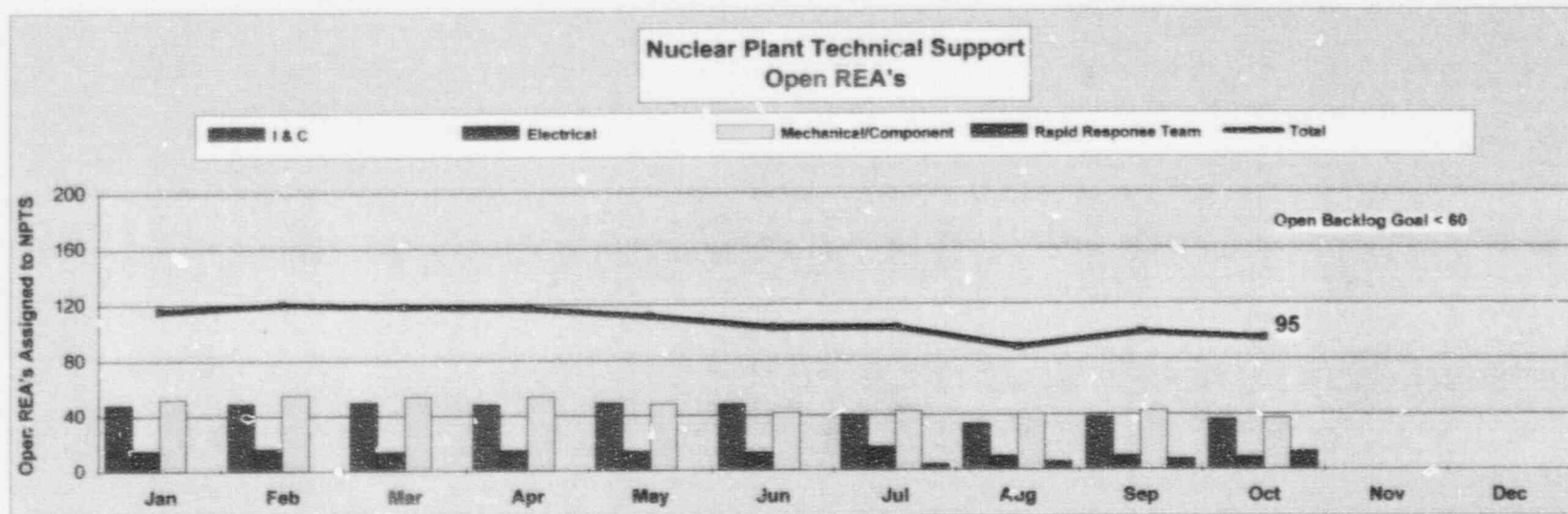
F. X. Sullivan, Manager Nuclear Engineering Design

Page: 5

Data Collected By:

A. Blanchard, Admin. Clerk

CR-3 Monthly Performance Trend - October 1996



Total	
Jan.	115
Feb.	120
Mar.	118
Apr.	117
May	111
Jun.	103
Jul.	103
Aug.	89
Sep.	99
Oct.	95
Nov.	
Dec.	

Definition of the Performance Indicator

This indicator provides data that is intended to reflect the backlog of Requests for Engineering Assistance (REA's) in Nuclear Plant Technical Support (NPTS) in a particular month. This indicator provides a measurement of the effectiveness of NPTS to respond to technical questions, requests for information/assistance, and suggestions/requests for plant modifications.

Performance Measurement / Goal

The 1996 target is an open backlog of < 60 REA's.

Analysis / Summary

The NPTS backlog reduction effort continues, with a goal of reducing the total number of REA's assigned to NPTS to < 60 by the end of 1996. This also includes ZERO open REA's initiated prior to 1995.

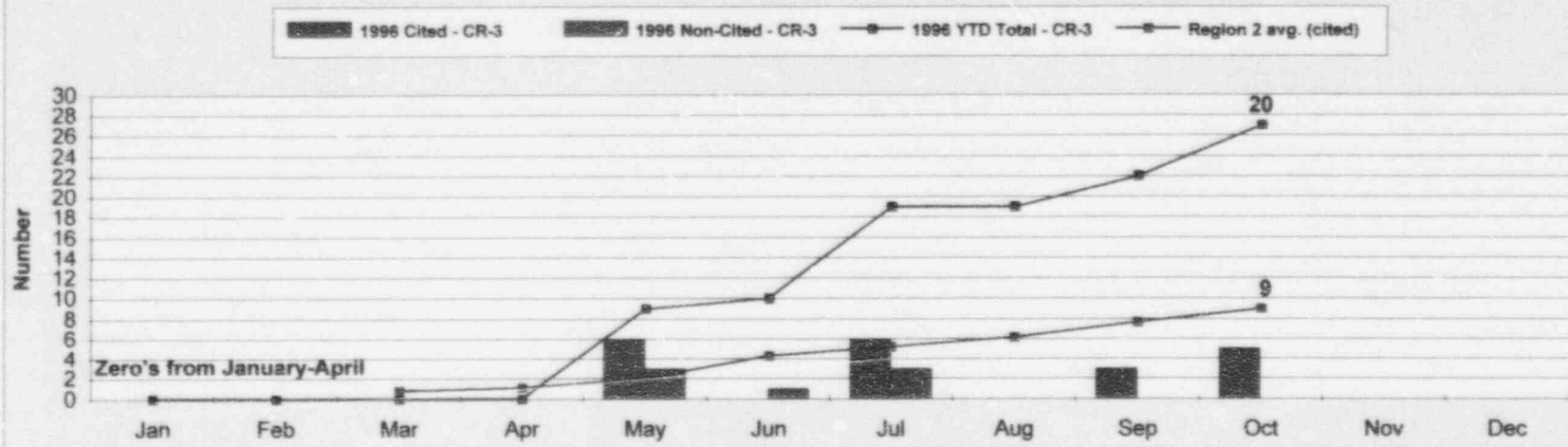
	I & C	Elect	Mech	RR	Total
Jan	48	15	52	0	115
Feb	49	16	55	0	120
Mar	50	14	54	0	118
Apr	48	15	54	0	117
May	49	14	48	0	111
Jun	48	13	42	0	103
Jul	39	17	43	4	103
Aug	33	10	40	6	89
Sep	38	10	43	8	99
Oct	36	9	37	13	95
Nov					
Dec					

Responsible:
Data Collected By:

J. H. Terry, Manager Nuclear Plant Technical Support
W. L. Peruche, Department Support Specialist

Regulatory Performance

CR-3 Violations vs. Region II



Total Violations

Jan.	- 0
Feb.	- 0
Mar.	- 0
Apr.	- 0
May	- 9
Jun.	- 1
Jul.	- 9
Aug.	- 0
Sep.	- 3
Oct.	- 5
Nov.	-
Dec.	-

Definition of the Performance Indicator

This indicator trends cited and non-cited NRC violations as they are identified in formal NRC inspection reports. This trend will be for violations resulting from 1996 activities only.

The Region 2 average comes from data supplied by International Energy Services. The data is obtained from formal Inspection Reports that have been electronically recorded in the NRC public document room. It is the average per "site" (there are 33 plants at 18 plant sites in Region 2).

Performance Measurement / Goal

Maintain the number of cited violations, "resulting from 1996 work activities", below the Region 2 average.

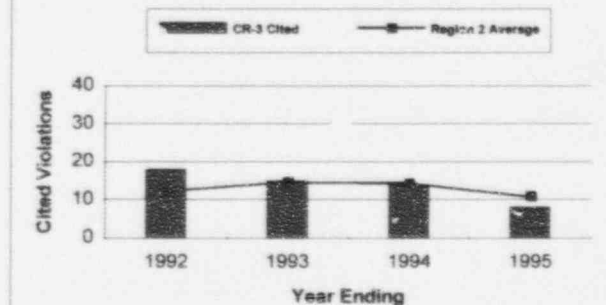
Analysis / Summary

There were two NRC Inspection Reports received in October. They were:

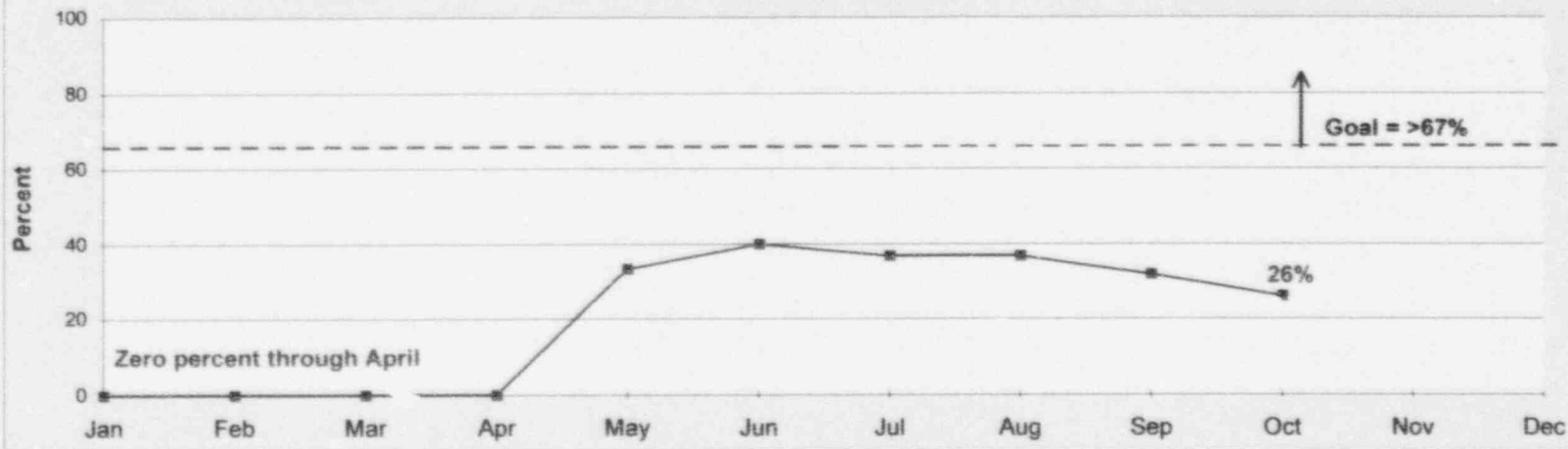
- Inspection Report 96-09 - This NRC integrated inspection covered a four week period from 8/11/96 - 9/07/96 and identified seven Severity Level IV violations. Five (5) of these violations resulted from 1996 work activities.

- Inspection Report 96-13 - This was a Special NRC Inspection to review the adequacy of the licensee investigation of the potential tampering event from 09/19/96. Within the scope of the inspection, there were no violations identified.

Annual Performance Summary



Ratio of Non-Cited Violations/Total Violations



Percent

Jan.	- 0%
Feb.	- 0%
Mar.	- 0%
Apr.	- 0%
May	- 33.3%
Jun.	- 40%
Jul.	- 37%
Aug.	- 37%
Sep.	- 32%
Oct.	- 26%
Nov.	
Dec.	

Definition of the Performance Indicator

This indicator is the ratio of non-cited violations (NCV's) to the total number of violations. This trend will be for violations resulting from 1996 activities only.

Performance Measurement / Goal

Improve the ratio of non-cited (i.e., self-identified) violations to total violations to > 67%.

Analysis / Summary

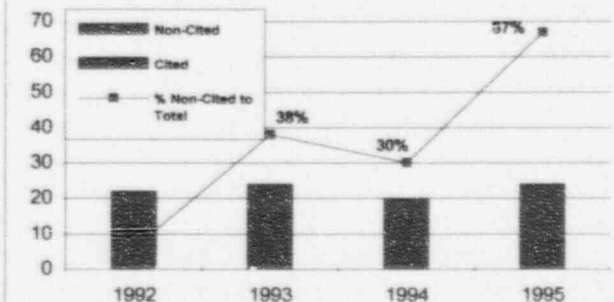
There were two NRC Inspection Reports received in October. They were:

- Inspection Report 96-09 - This NRC integrated inspection, covering a four week period from 8/11/96 - 9/07/96, identified seven Severity Level IV violations. Five (5) of these violations resulted from 1996 work activities.

- Inspection Report 96-13 - This was a Special NRC Inspection to review the adequacy of the licensee investigation of the potential tampering event from 09/19/96. Within the scope of the inspection, there were no violations identified.

Therefore, the ratio declined to seven non-cited violations to twenty-seven total for the year-to-date, or 26 percent.

Annual Performance Summary



Responsible:

G. H. Halnon, Manager Nuclear Plant Operations

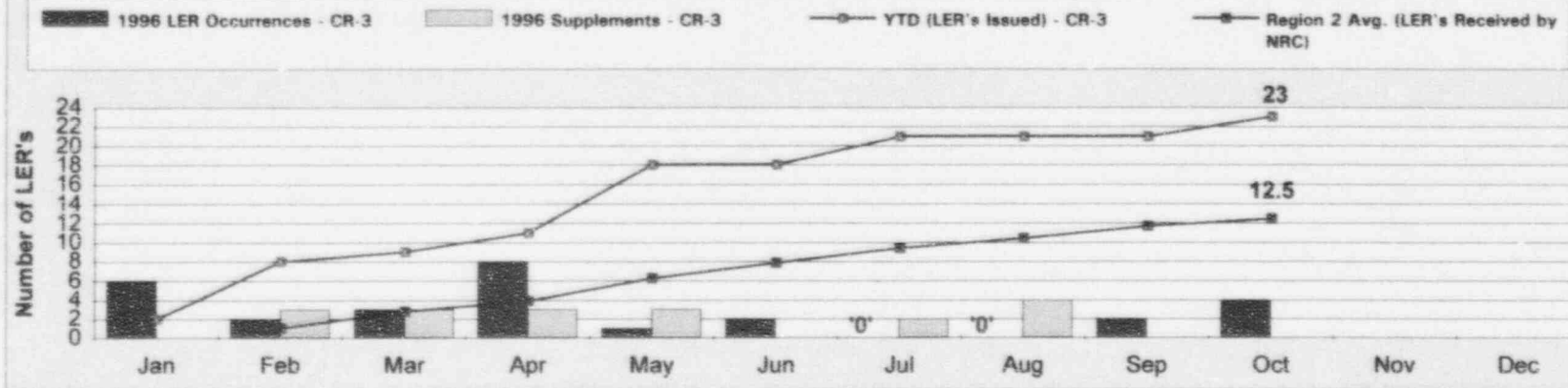
Page: 9

Data Collected By:

R. L. McLaughlin, Nuclear Regulatory Specialist

CR-3 Monthly Performance Trend - October 1996

Licensee Event Reports (LER's) - CR-3



LER's Issued

Jan.	- 2
Feb.	- 6
Mar.	- 1
Apr.	- 2
May	- 7
Jun.	- 0
Jul.	- 3
Aug.	- 0
Sep.	- 0
Oct.	- 2
Nov.	
Dec.	

Definition of the Performance Indicator

LER's are reported based on the "date of occurrence" so that the most recent information is available for trending. Some events may have occurred during the month but their LER's are not "issued" until the beginning of the subsequent month. The Year-to-Date reflects the total number actually issued. Supplements are reported based on the date of "data submittal".

The Region 2 average comes from data supplied by International Energy Services. It comes from the number received by the NRC and electronically recorded in the NRC public document room. The number will show the trend for LER's received from the 18 Region II sites, but is behind at least one month for "occurrences" since there are 30 days from the occurrence until an LER must be issued.

Performance Measurement / Goal

The # of LER's is one of 11 indicators that makes up the Regulatory Index which has an overall goal of > 7.5.

Analysis / Summary

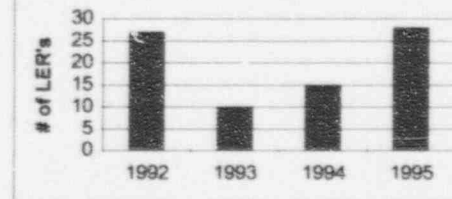
There were FOUR occurrences in October, which brings the year-to-date total to twenty-eight.

There were TWO LER's issued in October, which brings the year-to-date total to twenty-three.

There were ZERO supplements submitted in October, leaving the year-to-date total at eighteen.

The Region II average is 12.5 LER's received through October.

Annual Performance Summary



Responsible:

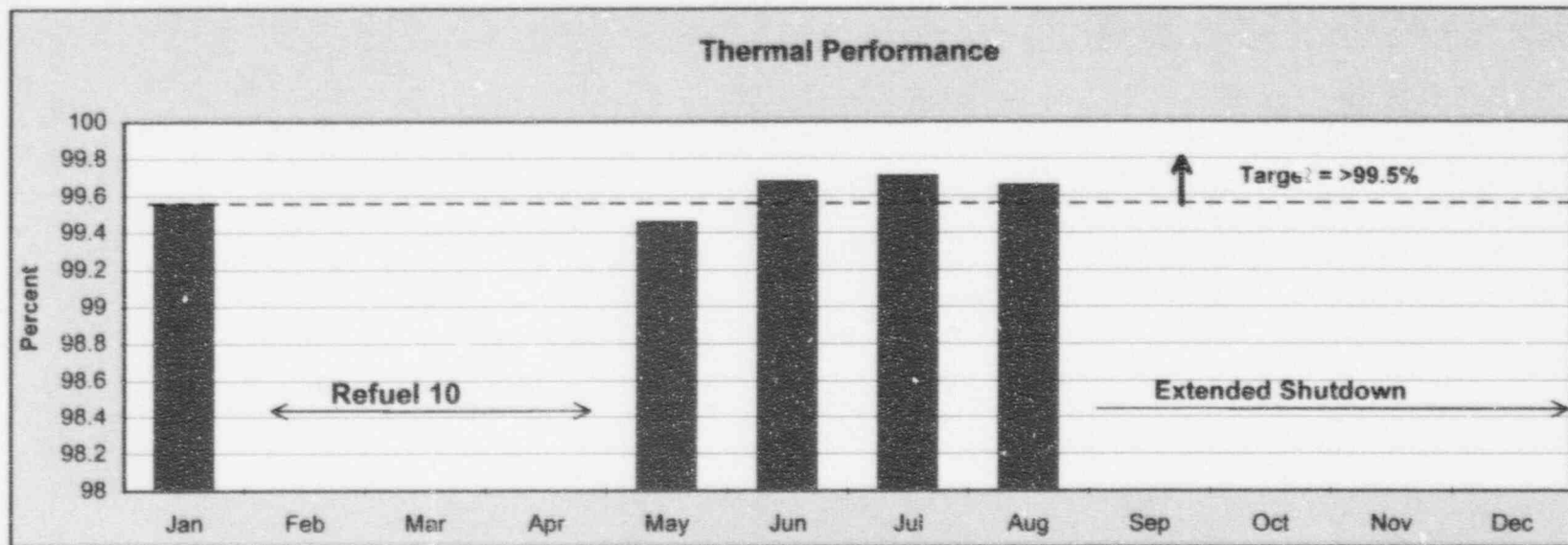
B. Gutherman, Manager Nuclear Licensing

Data Collected By:

T. W. Catchpole, Senior Nuclear Licensing Engineer

Page: 10

Plant Production & Reliability



Percent	
Jan.	- 99.56
Feb.	- 10R
Mar.	- 10R
Apr.	- 10R
May	- 99.46
Jun.	- 99.68
Jul.	- 99.71
Aug.	- 99.66
Sep.	- N/A
Oct.	- N/A
Nov.	
Dec.	

Definition of the Performance Indicator

The ratio of the design gross heat rate (corrected) to the adjusted actual gross heat rate, expressed as a percentage. The design gross heat rate is the initial plant design gross heat rate corrected for modifications. The actual gross heat rate is the gross heat rate at which the plant actually operates, adjusted for circulating water inlet temperatures, differences from design values, and the use of steam driven feedwater pumps. Actual gross heat rate data is collected during one 24-hour period each month with equipment in normal lineup and power level greater than 80 percent. Indicator values are not expected to be significantly below 100 percent.

Performance Measurement / Target

Achieve a Thermal Performance target of greater than 99.5 percent.

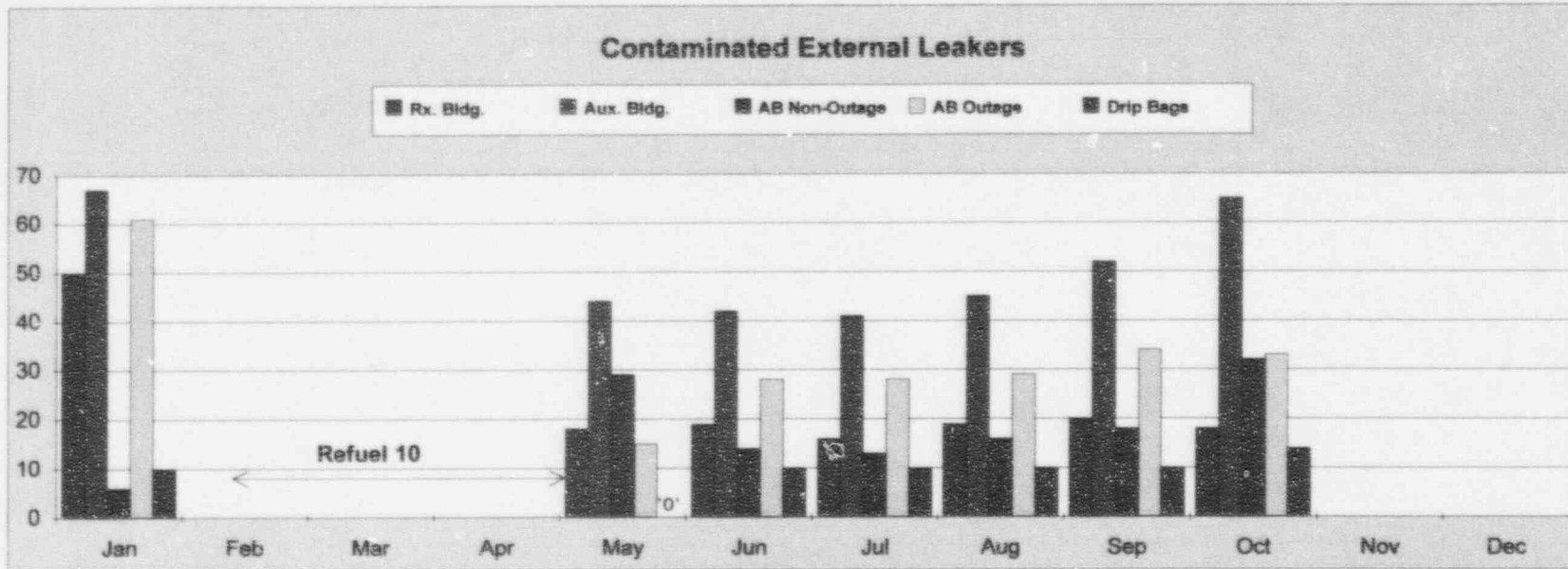
Analysis / Summary

This indicator will have no data until CR-3 returns to service in the spring of 1997.

CR-3 replaced the low pressure turbine during the 10R refuel outage. The expected generation gain is approximately 13 MWe. Therefore, the estimated new design heat rate is approximately 9680 BTU/KWH. This chart will show a TPI based on the estimated new Gross Maximum Capacity and estimated Design Gross Heat Rate.

Testing to determine new unit rating and design heat rate was in progress during the 3rd quarter. Necessary corrections will be made when the data analysis is completed in the 4th quarter.

CR-3 Monthly Performance Trend - October 1996



Total
Aux. Bldg.
Jan. - 67
Feb. - 10R
Mar. - 10R
Apr. - 10R
May - 44
Jun. - 42
Jul. - 41
Aug. - 45
Sep. - 52
Oct. - 65
Nov.
Dec.

Definition of the Performance Indicator

This performance indicator concentrates on "contaminated" leakers. It tracks the number of work requests with identified external contaminated fluid leaks. They are broken down into those located in the Reactor Building (RB) and Aux. Building (AB). They are further subdivided into whether they can be worked on-line or in an outage mode. This is an aggressive attempt to focus our efforts on elimination of contaminated area, reduction of Dry Active Waste generated, and the reduction of liquid waste.

Performance Measurement / Target

The target is to eliminate leakers that can be repaired on-line.

Analysis / Summary

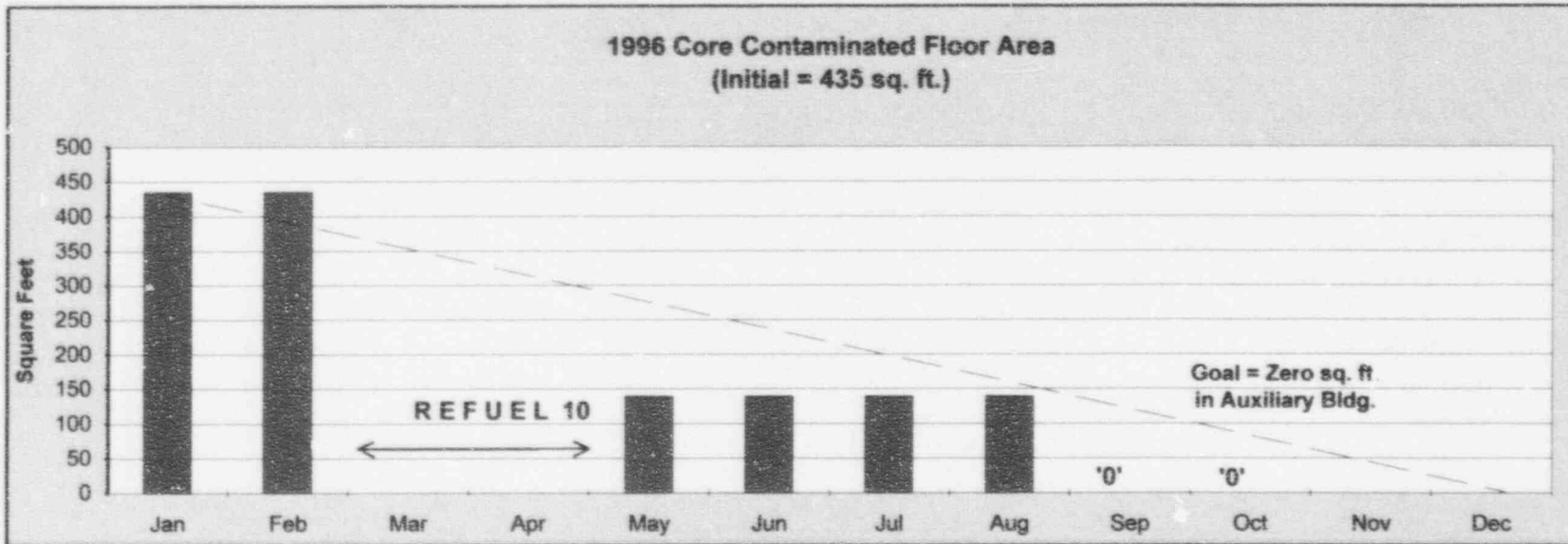
The overall number of identified contaminated leakers throughout the plant currently stands at 83. Of these, there are 65 located in the Aux. Building. Work Controls is preparing to repair as many as possible during the current plant shutdown. As of mid-November, the status of the 65 leakers in the Aux. Building is:

- 12 complete and awaiting Post Maintenance Testing (PMT) after startup.
- 8 on the current schedule for repair.
- 19 on the list of valves to be assigned to NNI for repairs.
- 6 on the list to be assigned to the machine shop for repairs
- 22 remaining to be scheduled at a later date.

Responsible:
Data Collected By:

J. W. Campbell, Assistant Director Maint. & Radiation Protection
S. G. Rushton, Nuclear Planning Coordinator

CR-3 Monthly Performance Trend - October 1996



Square Feet

Jan.	- 435
Feb.	- 435
Mar.	- 10-R
Apr.	- 10-R
May	- 140
Jun.	- 140
Jul.	- 140
Aug.	- 140
Sep.	- 0
Oct.	- 0
Nov.	-
Dec.	-

Definition of the Performance Indicator

This goal tracks the core area of contaminated floor surface that is targeted for permanent decontamination in 1996. This does not include the reactor building.

Performance Measurement / Target

The goal for this indicator is to reduce the remaining "core" area of 435 sq. ft. in the Aux. Building to zero by the end of the year.

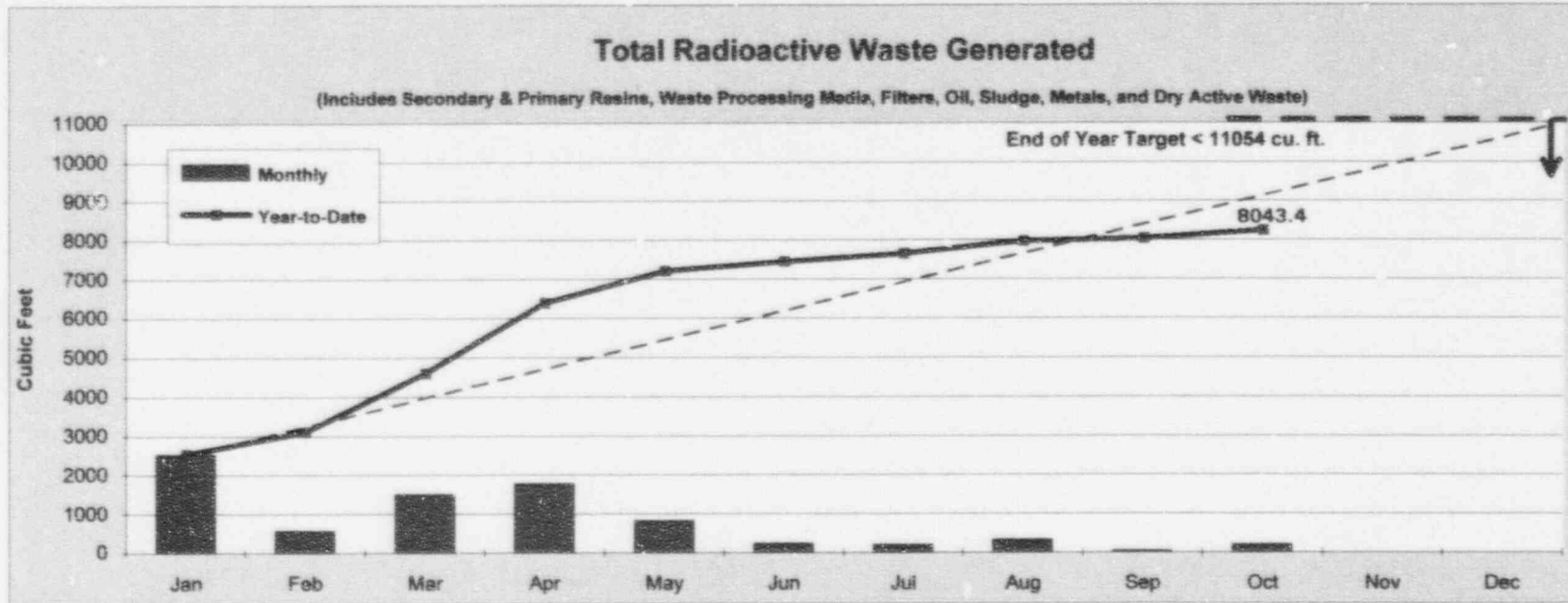
Analysis / Summary

The decontamination and recoating of the Post Filter Room and Valve Alley was completed on September 20th, bringing to conclusion the two and one-half year Auxiliary Building Zero Core Contaminated Floor Space Decontamination Project at CR-3. This project began in May of 1994, after Refuel 9.

The next step in the process is "real time" decontamination of contaminated areas generated from Maintenance activities, leaks, and spills. This means that these areas will be decontaminated as a step in the overall work controls process to prevent a backlog of contaminated areas as existed prior to May, 1994.

This indicator will be carried as part of the quarterly performance indicator report through the end of the year. The responsible organization will determine what the goals are for 1997 and what parameters to trend.

CR-3 Monthly Performance Trend - October 1996



Cubic Feet

Jan - 2530.5
Feb - 566.8
Mar - 1504.7
Apr - 1780.4
May - 824.0
Jun - 7443.9
Jul - 7645.4
Aug - 7979.4
Sep - 8035.4
Oct - 8043.4
Nov
Dec

Definition of the Performance Indicator

This indicator measures the combined volumes of secondary and primary resins, waste processing media, filters, oil, sludge, metals, and dry active waste generated at CR-3. This is prior to being sent to an off-site processor for volume reduction and disposal.

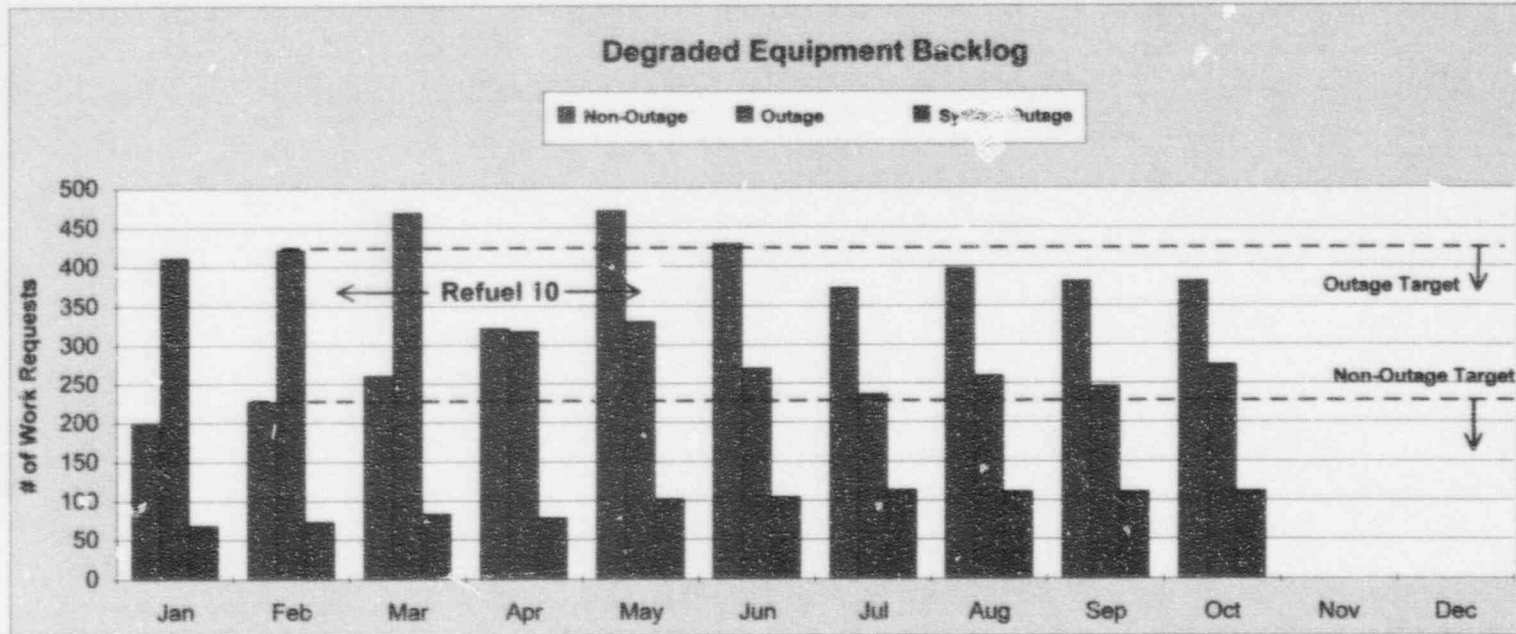
Performance Measurement / Target

The 1996 end of year target is < 11,054 cubic feet. This is the summation of two targets; < 6667 cu. ft. for the 10R outage and < 4387 cu. ft. for the remaining portion of the year.

Analysis / Summary

The following waste was generated during October for a monthly total of 208 ft³:

- DAW - 80 ft³ generated (Normal workload)
- Filters - 32 ft³ generated (Regular filter changeout)
- Metals - 96 ft³ generated (This is outage cleanup from 10R)



Total Degraded		
	Non-Outage	Outage
Jan. -	198	412
Feb. -	227	422
Mar. -	261	469
Apr. -	322	318
May -	471	330
Jun. -	429	270
Jul. -	373	236
Aug. -	397	260
Sep. -	381	246
Oct. -	381	274
Nov.		
Dec.		

Definition of the Performance Indicator

Degraded equipment is "equipment that is in a condition or state which is less than the original specification" (i.e., valves with a seat leak, instrumentation reading incorrectly, frayed electrical wires, etc.). This trend includes all shops.

Performance Measurement / Target

The target for this indicator will be a cycle 11 target equal to the number of open work requests identified as "degraded" at the beginning of 10R. This was 227 for non-outage and 422 for outage. After 10R, the trend will be monitored to ensure goals are not exceeded during operational cycle 11.

Analysis / Summary

As CR-3 continues in its current shutdown, emphasis will focus on scheduling and working outage work, while continuing the attention necessary to address the non-outage work requests. The data reflecting this is in the upper right corner of this indicator. There are also 112 work requests that are "priority 4", requiring a "system outage". Management is focusing their efforts to address this backlog during the current plant shutdown.

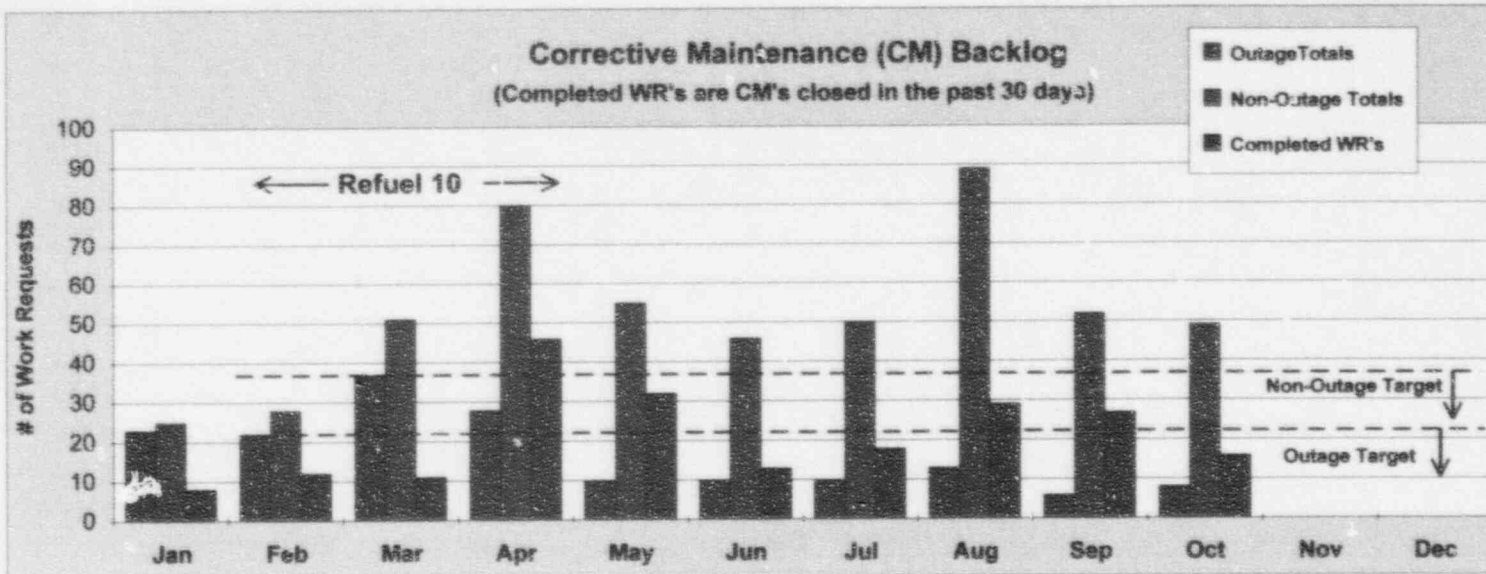
Responsible:

J. W. Campbell, Assistant Plant Director Maint. & Radiation Protection

Page: 15

Data Collected By:

R. L. Thompson, Senior Nuclear QA Engineer



Total CM's		
	Non-Outage	Outage
Jan. -	25	23
Feb. -	28	22
Mar. -	51	37
Apr. -	80	28
May -	55	10
Jun. -	46	10
Jul. -	50	10
Aug. -	89	13
Sep. -	52	6
Oct. -	49	8
Nov.		
Dec.		

Definition of the Performance Indicator

Work requests identified in MACS as "Corrective Maintenance" (CM) items are those equipment that are out-of-service (Broken). This is a count of open work requests, designated as CM, reported on the 12th of the month. This is a "subset" of those work requests identified in MACS as "degraded".

Performance Measurement / Target

The target for this indicator will be a cycle 11 target equal to the number of open work requests identified as "corrective maintenance" at the beginning of 10R. This was 37 for non-outage (includes those system outage WR's that can be done on-line) and 22 for outage (requires the plant to be off-line).

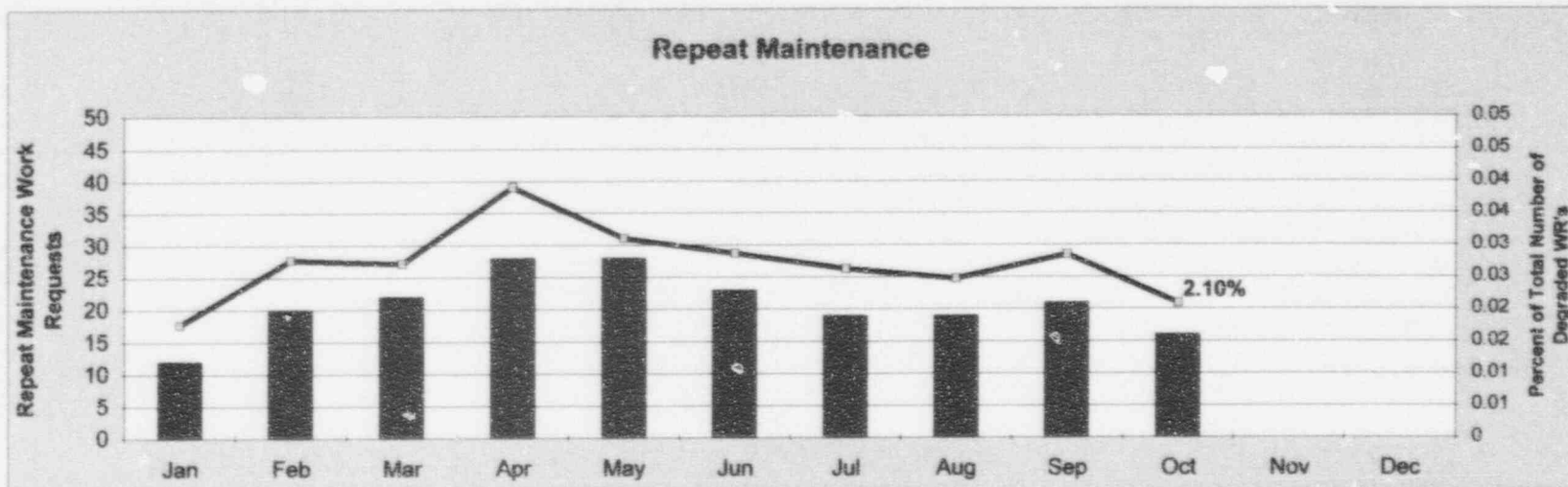
Analysis / Summary

It is in the planning stage of the work controls process that work classes, such as CM, are identified. Reductions in September and October are reflective of the aggressive scheduling of maintenance, especially on control board deficiencies. The data in the upper right corner of this indicator now shows the number of activities each month, both outage and non-outage. There are also two work requests that require a "system outage". Continued emphasis will be placed on the elimination of outage leakers and control board deficiencies.

Responsible:
Data Collected By:

J. W. Campbell, Assistant Plant Director Maint. & Radiation Protection
R. L. Thompson, Senior Nuclear QA Engineer

CR-3 Monthly Performance Trend - October 1996



Total	
Jan	= 12
Feb	= 20
Mar	= 22
Apr	= 28
May	= 28
Jun	= 23
Jul	= 19
Aug	= 19
Sep	= 21
Oct	= 16
Nov	
Dec	

Definition of the Performance Indicator

This data is the number of work requests that fall under the classification "Repeat Maintenance", and is compiled by evaluating the work history downloaded from MACS. The chart also shows the percentage of work requests that planners have identified as "degraded" in MACS that are repeat maintenance (rework on a specific component/part which occurs within a 24 month period of time).

Performance Measurement / Goal

This is a new trend. It is being tracked in order to support shop efficiency goals, and to aide System Engineers in the evaluation of repetitive and/or functional failure concerns relating to the Maintenance Rule.

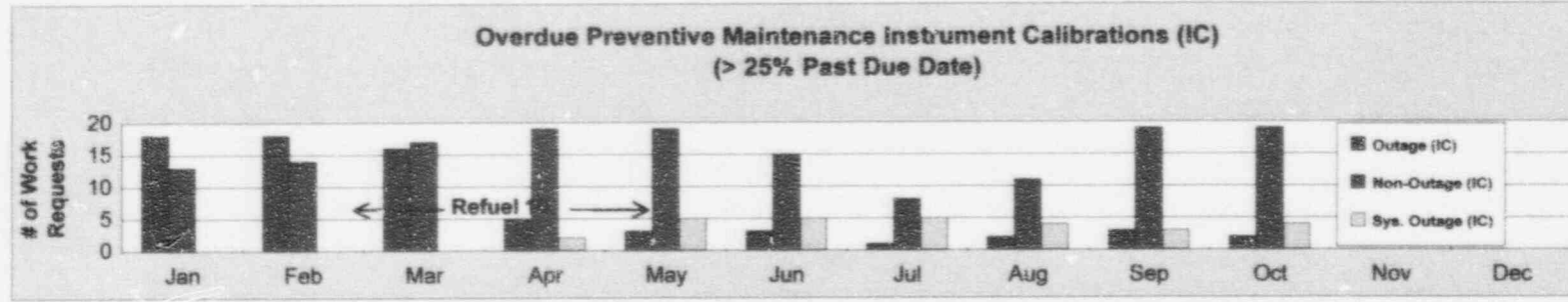
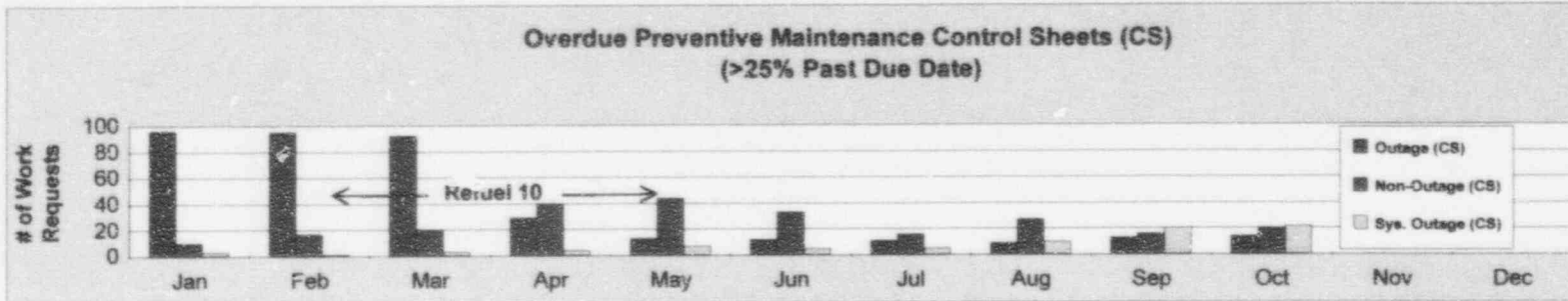
Analysis / Summary

The number of work requests identified as repeat maintenance (16) are those work evolutions which are similar in scope, that needed rework due to a failure to correct the problem initially. The 2.1% is the percentage of work requests identified by the planner as repeat maintenance compared to the total number of work requests that the planner identified as degraded (767). Degraded equipment is "equipment that is in a condition or state which is less than the original specification", including out- of-service (broken) equipment (See page 15 of this report.).

Responsible:
Data Collected By:

J. W. Campbell, Assistant Plant Director Maint. & Radiation Protection
R. L. Thompson, Senior Nuclear QA Engineer

CR-3 Monthly Performance Trend - October 1996



Non-Outage	
Total (CS & IC)	
Jan.	- 23
Feb.	- 31
Mar.	- 37
Apr.	- 59
May	- 63
Jun.	- 58
Jul.	- 34
Aug.	- 38
Sep.	- 35
Oct.	- 39
Nov.	
Dec.	

Definition of the Performance Indicator

This indicator is a count taken at mid-month, of work requests designated as "Preventive Maintenance" which are greater than 25% overdue. These are separated into Control Sheets (CS) and Instrument Calibrations (IC) and further divided into non-outage, system outage, and unit outage.

Performance Measurement / Goal

The goal is to have no non-outage PM control sheets or instrument calibrations past their due date by more than 25%.

Analysis / Summary

Most of the categories below have increased during October. Overall the non-outage items decreased after 10R, though slowly because scheduling priorities place these PM's low on the list. The Manager, Nuclear Outage has a list of all PM's due between now and June 1997 (which includes those > 25% overdue). His intentions are to address this issue and come out of the current plant shutdown with zero overdue PM's.

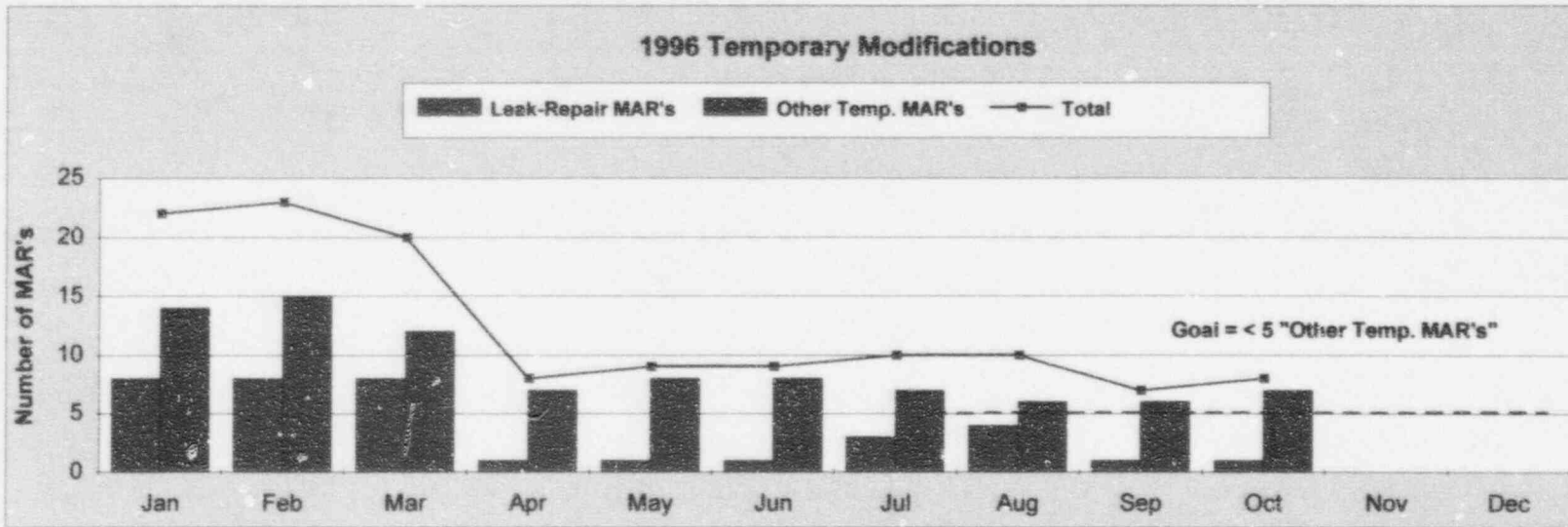
Below is a breakdown of those > 25% overdue at the end of October.

CONTROL SHEETS:

- Outage PM's > 25% overdue = 14
- Non-Outage PM's > 25% overdue = 20
- System outage PM's > 25% overdue = 22

IC CALIBRATIONS:

- Outage PM's >25% overdue = 2
- Non-outage PM's > 25% overdue = 19
- System outage PM's > 25% overdue = 4



Temporary Modifications

- Jan. - 22
- Feb. - 23
- Mar. - 20
- Apr. - 8
- May - 9
- Jun. - 9
- Jul. - 10
- Aug. - 10
- Sep. - 7
- Oct. - 8
- Nov.
- Dec.

Definition of the Performance Indicator

This indicator shows the number of installed temporary modifications, including those resulting from Leak Repairs. The "table" under Analysis/Summary below shows the age of the modifications.

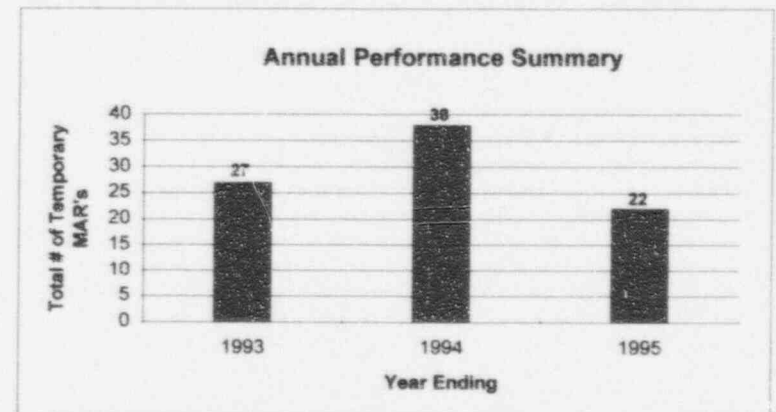
Performance Measurement / Goal

- a) The target is to have < 5 temporary modifications in place (excluding "Leak Repair" modifications)
- b) There should be no T-MAR's older than one fuel cycle.

Analysis / Summary

The total number of installed temporary modifications is eight (8). Seven (7) are not Leak Repair items. The one Leak Repair item still open is the H. P. turbine flange repair. This requires machining to restore its condition and is currently scheduled for Refuel 11.

	July	Aug.	Sept.	Oct.
< 6 months	4	5	1	2
6 - 12 months	2	1	2	2
12 - 18 months	0	1	1	1
18 - 24 months	0	0	0	0
> 24 months	4	3	3	3
Total	10	10	7	8

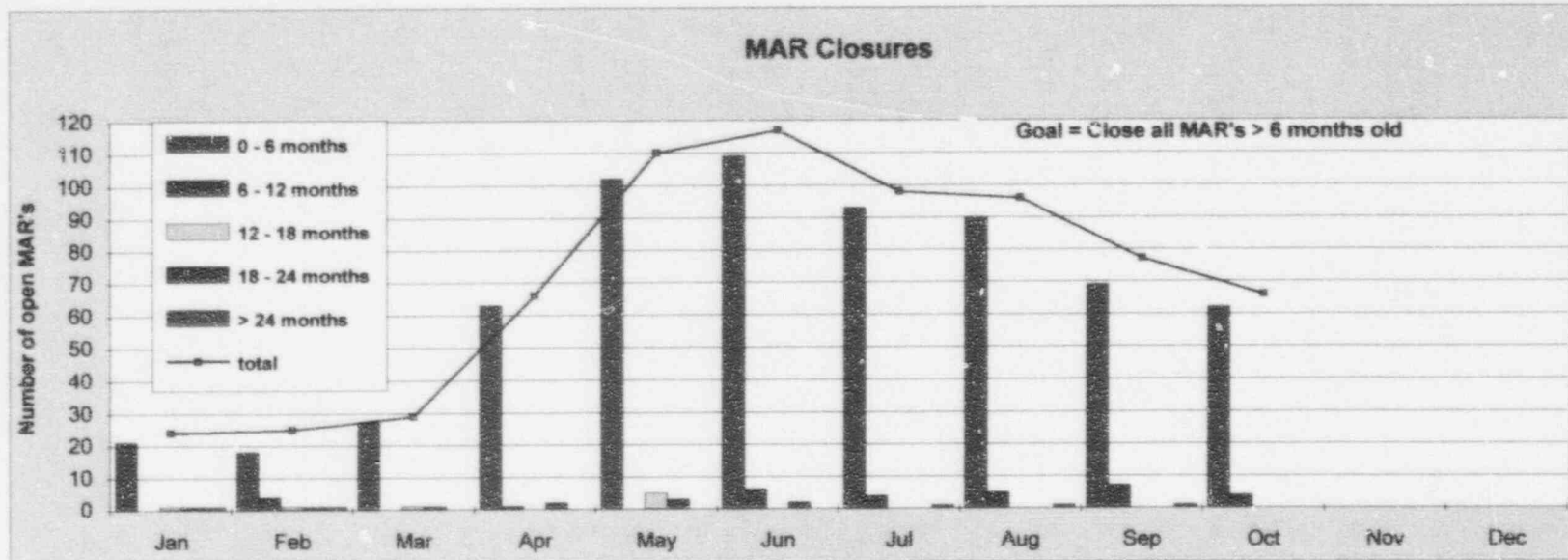


Responsible:

K.F. Lancaster, Manager Nuclear Projects

Data Collected By:

O. M. Layo, Projects Engineering Technician



Total
> 6 Months
Jan. - 3
Feb. - 7
Mar. - 2
Apr. - 3
May - 8
Jun. - 8
Jul. - 5
Aug. - 6
Sep. - 7
Oct. - 4
Nov.
Dec.

Definition of the Performance Indicator

To assure timeliness of modification (MAR) closures, particularly outage MARs, Nuclear Engineering has implemented improved controls over the closure process including specific time frames for completing closures. This performance indicator reflects the number of modifications completed, returned to service, and waiting for final package review and resolution of open items.

Performance Measurement / Target

Complete the modification closure process within 180 days (six months) of the modification turnover or return to service. The goal is to have ZERO open packages greater than six months old.

Analysis / Summary

There are currently 66 modifications complete and in the closure process. Of those, four (4) are beyond the targeted duration of 180 days. They are waiting on procedure revisions.

	July	Aug.	Sept.	Oct.
< 6 months	93	90	69	62
6 - 12 months	4	5	7	4
12 - 18 months	0	0	0	0
18 - 24 months	0	0	0	0
> 24 months	1	1	1	0
Total	98	96	77	66

Responsible:

K. F. Lancaster, Manager Nuclear Projects

Data Collected By:

O. M. Lavo, Projects Engineering Technician