

May 15, 2000

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Bryon Norris                          Bob Medlin                        Charlie Boyd  
Tom Coutu                              Linda Smith (EC05P) + 6 copies

SUBJECT: Oconee Nuclear Performance Measures Report

FROM: Tommy Hartis

Attached please find the April, 2000 Oconee Nuclear Performance Measures Report.

Please let me know if you have questions, concerns, need additional information or need additional copies of the report.

/sy

xc: ONS Business Mgt. File

# Oconee Nuclear Station Performance Measures Report

April 2000

Compiled and Published by:  
Oconee Site Business Management Group

## Contacts:

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# ONS Improvement Plan Focus Area Annunciator Panel

April 2000

## Nuclear Safety

<b>HUMAN PERFORMANCE</b>				<b>SELF ASSESSMENT</b>				<b>DESIGN BASIS</b>			
McCOLLUM				FOSTER				NAZAR			
				<b>Timeliness And Effectiveness of Corrective Actions</b>				<b>Design Basis Clarification</b>			
				Bond				Azzarello			
				<b>Self Assessments And Benchmarking</b>							
				Foster							

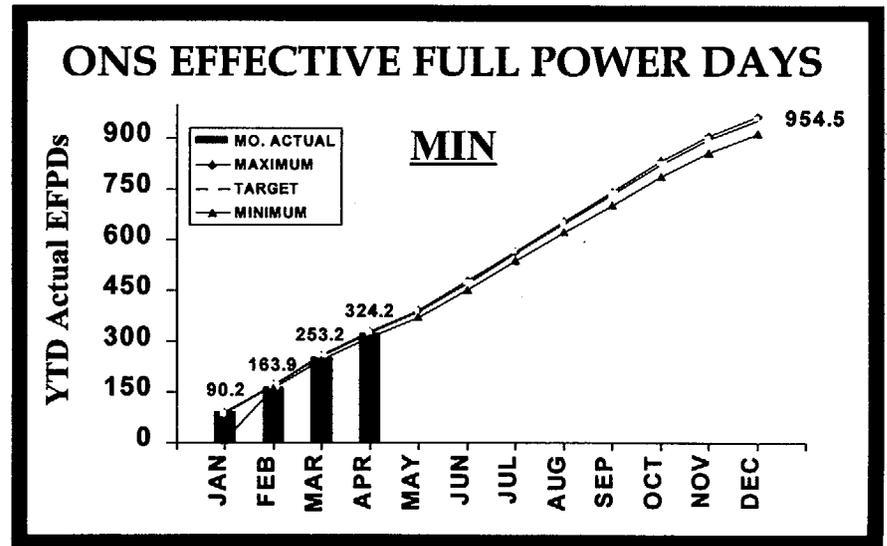
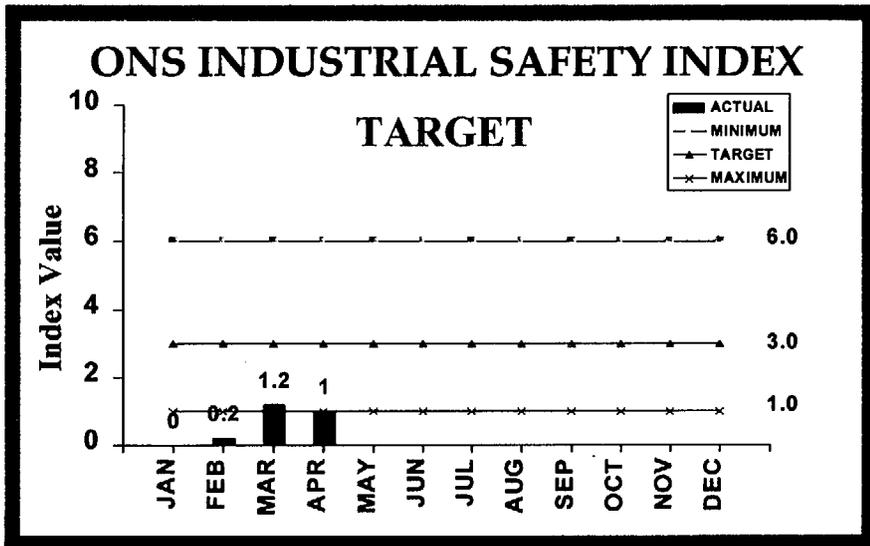
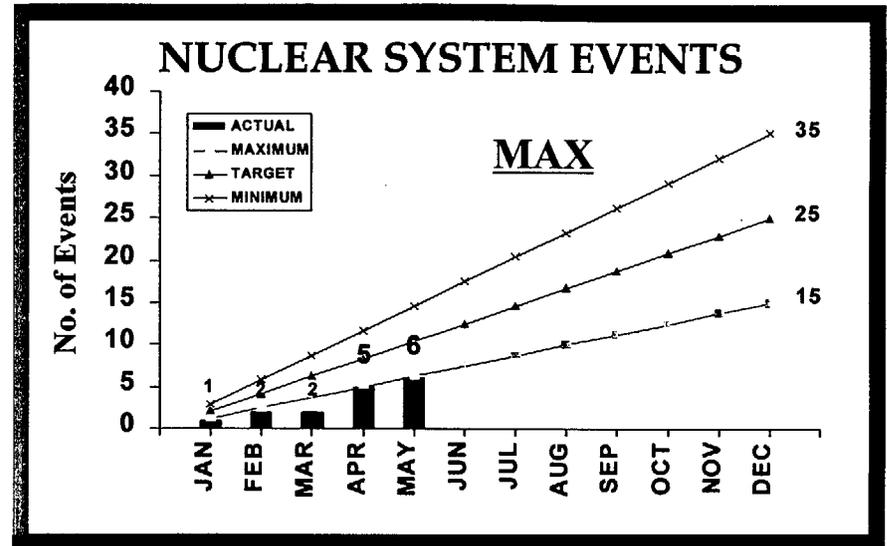
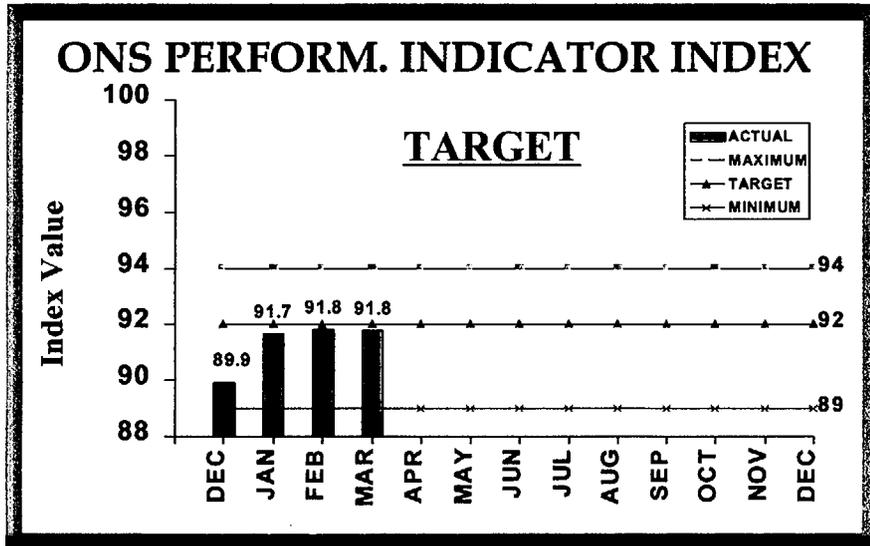
## Production

<b>SYSTEM EQUIPMENT RELIABILITY</b>				<b>OPERATIONAL FOCUS</b>							
NAZAR				FORBES							
				<b>Risk Assessment Model</b>				<b>Innage Planning &amp; Execution</b>			
				Little & Medlin				Boyd			
<b>Quality of Maintenance</b>											
Medlin											

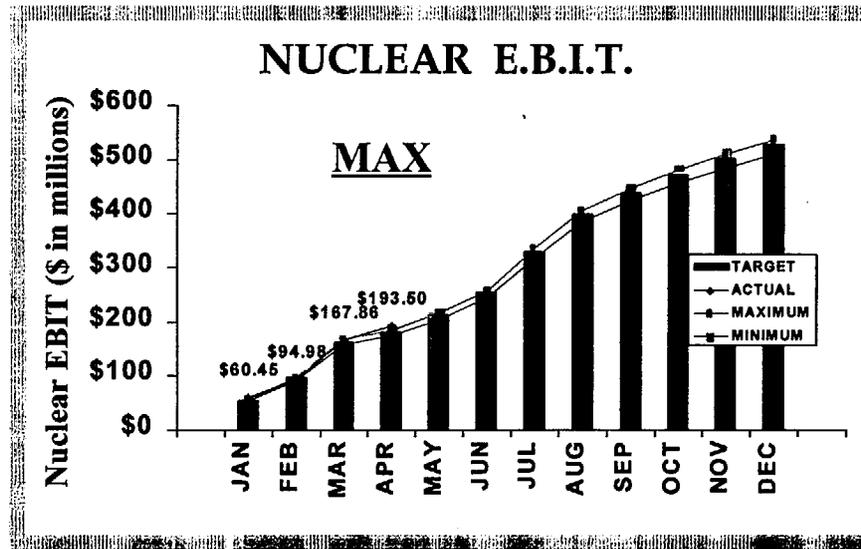
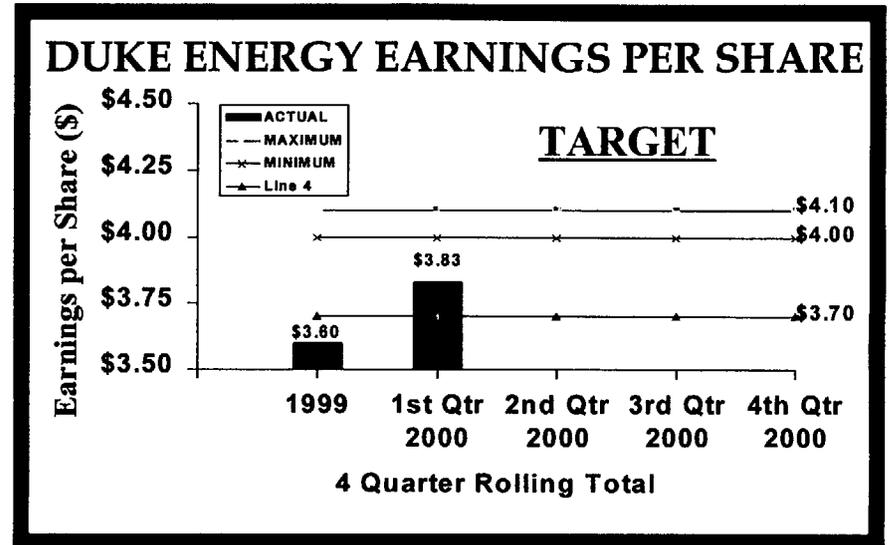
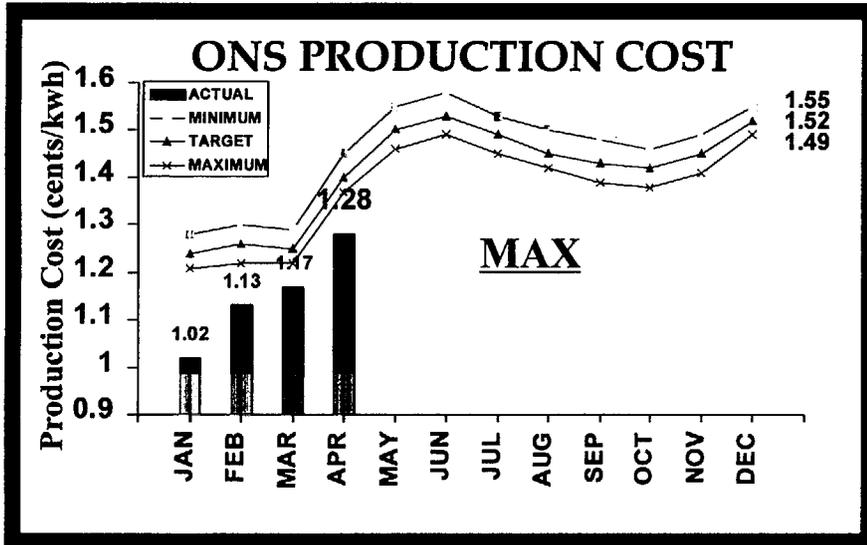
## Competitive Positioning

<b>FINANCIAL MANAGEMENT</b>			
MARTIN			

# Oconee Nuclear Station 2000 Site Incentive Goals



# Oconee Nuclear Station 2000 Site Incentive Goals



**Oconee Nuclear Site  
NRC Performance Indicators Annunciator Panel  
1 Quarter 2000**

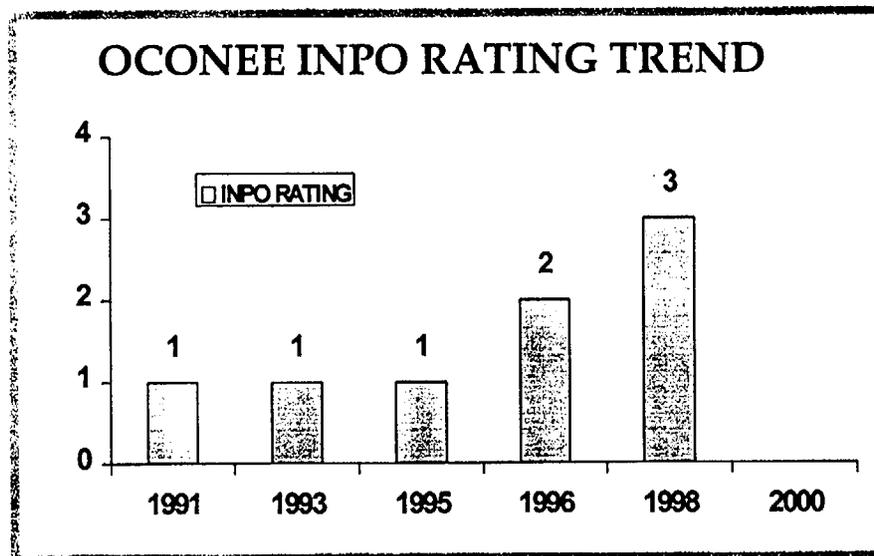
#	NRC Performance Indicator	Unit 1	Unit 2	Unit 3
<b>Initiating Events:</b>				
IE-1	Unplanned Scrams Per 7000 Critical Hours (automatic & manual during previous 4 quarters)	2.7	2.7	0.8
IE-2	Scrams with a Loss of Normal Heat Removal (over the previous 12 quarters)	0	0	0
IE-3	Unplanned Power Reductions (Transients) per 7000 Critical Hours (over previous 4 quarters)	0.9	0.9	3.2
<b>Mitigating Systems:</b>				
MS-1	Safety System Unavailability (SSU) - Emergency Power (average of previous 12 Quarters)	2.8%	2.1%	2.2%
MS-2	Safety System Unavailability (SSU) - High Pressure Safety Injection (average of previous 12 Quarters)	0.5%	0.5%	0.5%
MS-3	Safety System Unavailability (SSU) - Auxiliary Feedwater (average of previous 12 Quarters)	0.3%	0.3%	0.4%
MS-4	Safety System Unavailability (SSU) - Residual Heat Removal (average of previous 12 Quarters)	1.3%	1.0%	0.9%
MS-5	Safety System Functional Failures (over previous 4 Quarters)	0	0	0
<b>Barrier Integrity:</b>				
BI-1	Reactor Coolant System (RCS) Specific Activity (maximum monthly values, % of Tech. Spec. Limit, during previous 4 Qtrs.)	0.4%	0.7%	3.2%
BI-2	RCS Identified Leak Rate (maximum monthly values, % of Tech. Spec. Limit, during previous 4 Qtrs.)	4.2%	2.4%	2.4%
<b>Emergency Preparedness:</b>				
EP-1	Drill/Exercise Performance (over previous 8 Qtrs.)	95%	95%	95%
EP-2	ERO Drill Participation (% of Key ERO personnel that participated in a drill or exercise in the previous 8 quarters)	97%	97%	97%
EP-3	Alert & Notification System Reliability (% reliability during previous 4 quarters)	97.8%	97.8%	97.8%
<b>Occupational Radiation Safety:</b>				
OR-1	Occupational Exposure Control Effectiveness (occurrences during previous 12 Qtrs.)	0	0	0
<b>Public Radiation Safety:</b>				
PR-1	RETS/ODCM Radiological Effluent Occurrence (occurrences during previous 4 Qtrs.)	0	0	0
<b>Physical Protection:</b>				
PP-1	Protected Area Security Equipment Performance Index (over a 4 quarter period)	0.02	0.02	0.02
PP-2	Personnel Screening Program Performance (reportable events during previous 4 Qtrs.)	0	0	0
PP-3	Fitness-For-Duty (FFD)/Personnel Reliability Program Performance (reportable events during previous 4 Qtrs.)	0	0	0

NRC Color Codes:	
	Acceptable Performance
	Increased Regulatory Response
	Required Regulatory Response

# Nuclear Safety INPO RATING



(RED)



## DEFINITION:

The INPO rating is determined through INPO's Evaluation and Assistance (E&A) program. These evaluations, performed every 12 - 24 months assess performance in eight areas: Organization and Administration, Operations, Maintenance, Engineering Support Training and Qualification, Radiation Protection, Chemistry and Operating Experience. These evaluations assess performance of personnel, systems, components, programs/procedures and management effectiveness.

## 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** INPO rating = 2.0

**RED:** INPO rating  $\geq$  3.0

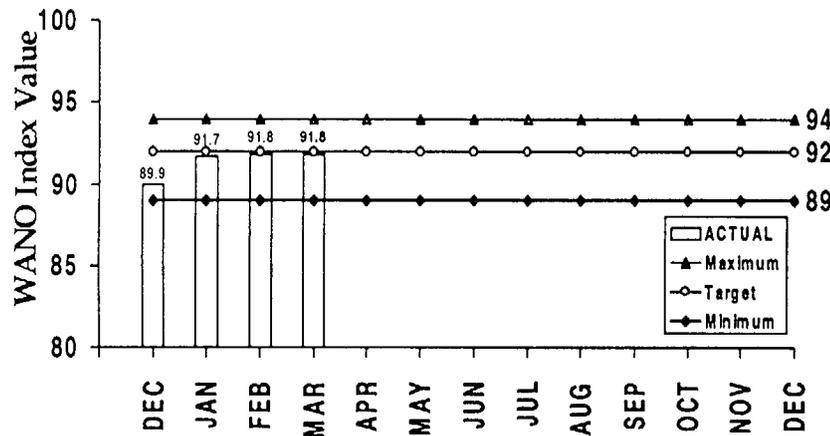
## CURRENT MONTH STATUS:

**RED:** Oconee did not receive an INPO evaluation in 1999. The measure is RED based on our last review completed in October, 1998. This review resulted in a 3.0 (poor) rating. This followed a 2.0 (adequate) rating in 1996. Our 2000 INPO evaluation is scheduled to take place August 21 - September 1, with the exit scheduled for October 4th.

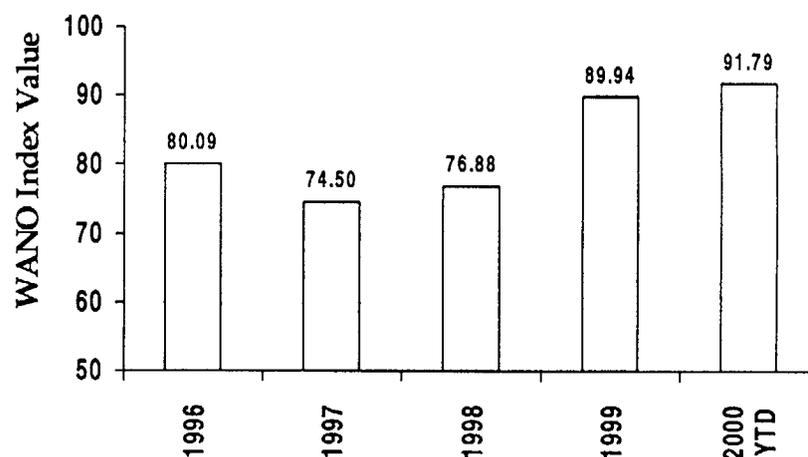
# Nuclear Safety PERFORMANCE INDICATOR INDEX

PERFORMANCE INDICATOR INDEX (Forbes)		
(YELLOW)		

### 2000 YTD RESULTS



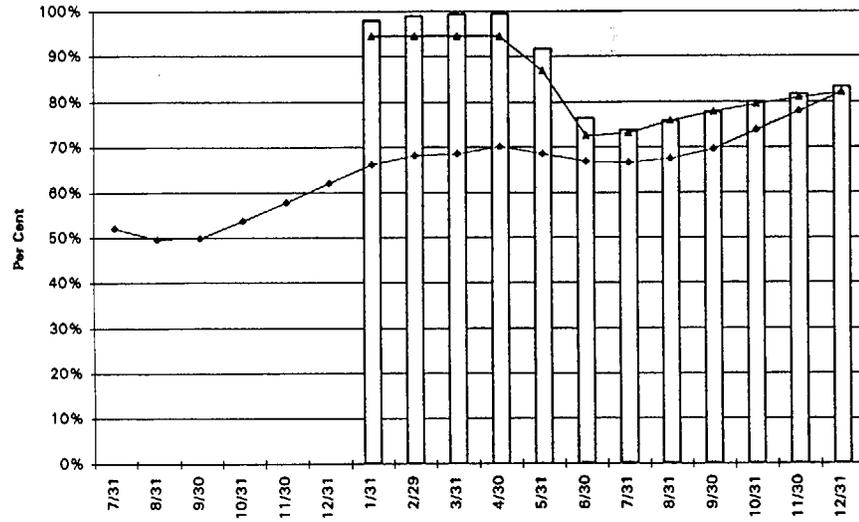
### HISTORICAL TREND



YTD Actual = 99.25%

Oconee Nuclear Station  
Unit 1 Unit Capability Factor  
YTD Through March, 2000

Good  
↑



YTD Actual 2 Year Avg Tar Level (Year-end 82.07)

Definition:

Ratio of the available energy over a given time period to the reference energy generation over the same time period, expressed as a percentage. Available energy generation is the energy that could have been produced under reference ambient conditions considering only limitations within control of plant management. Reference energy generation is the energy that could be produced if the unit were operated continuously at full power under reference ambient conditions.

History	Unit 1	Unit 2	Unit 3
1996	74.7%	69.1%	72.4%
1997	43.2%	79.0%	62.6%
1998	80.9%	75.8%	79.9%

Data Source

R A Williams, 382-6346

Contact

RH Anderson, 382-3817

Unit 1 Notes:

May - EOC11 refueling began on 5/20.

June - EOC11 refueling entire month.

Jul - returned to service on 7/9 losing about 2 EFPD's. Also lost 4 more EFPD's due to auto trip associated with blown fuse on RCG Rod 3 and high vibrations on T/G requiring balancing.

Unit 2 Notes:

Feb - offline on 2/23 for 3.9 days to repair feedwater riser leaks.

Mar - returned to service on 3/2, losing 1.7 days.

Jun - auto trip on 6/19 at 1015 due to electrical ground that gave a high water level in the MSR's. Returned 6/24.

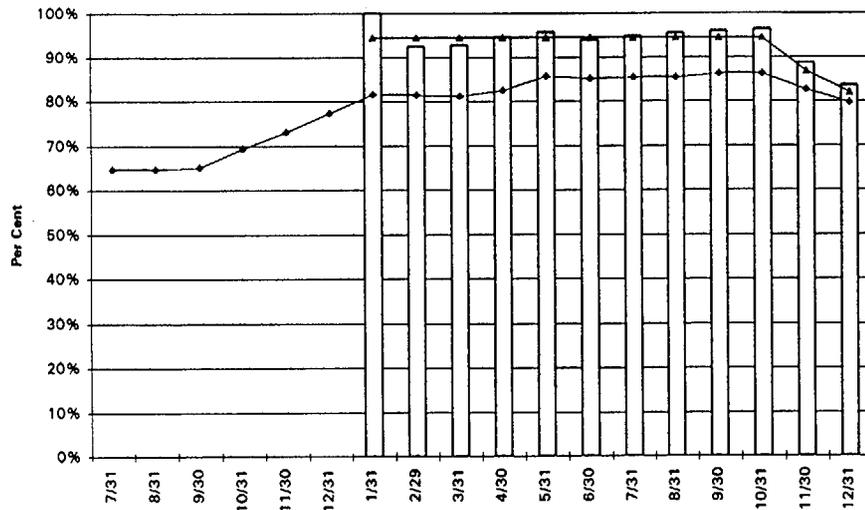
Unit 3 Notes:

Jan - offline on 1/1/99 for 1.46 days due to broken wire associated with CRD fuse F4.

YTD Actual = 92.76%

Oconee Nuclear Station  
Unit 2 Unit Capability Factor  
YTD Through March, 2000

Good  
↑

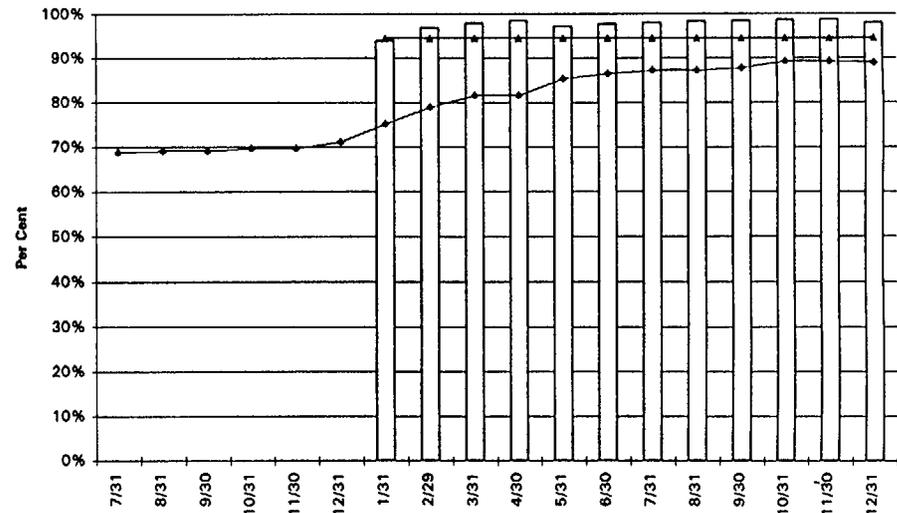


YTD Actual 2 Year Avg Tar Level (Year-end 82.07)

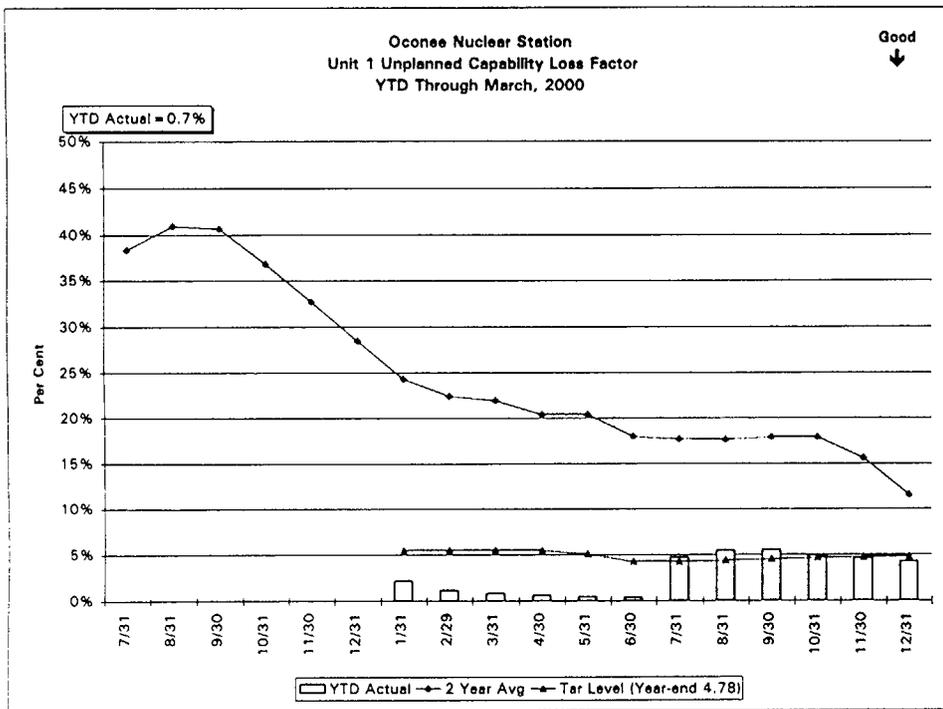
YTD Actual = 97.90%

Oconee Nuclear Station  
Unit 3 Unit Capability Factor  
YTD Through March, 2000

Good  
↑



YTD Actual 2 Year Avg Tar Level (Year-end 94.50)



**Definition:**  
Ratio of the unplanned energy losses during a given period of time, to the reference energy generation, expressed as a percentage. Unplanned energy loss is energy that was not produced during the period because of unplanned shutdowns, outage extensions, or unplanned load reductions due to causes under plant management control. Energy losses are considered unplanned if they are not scheduled at least four weeks in advance.

History	Unit 1	Unit 2	Unit 3	Data Source
1996	25.3%	29.9%	15.6%	R A Williams, 382-5346
1997	38.1%	21.0%	36.8%	
1998	18.9%	4.1%	6.2%	Contact RH Anderson, 382-3817

**Unit 1 Notes:**

Jul - returned to service on 7/9 losing about 2 EFPD's. Also lost 4 more EFPD's due to auto trip associated with blown fuse on RCG Rod 3 and high vibrations on T/G requiring balancing.

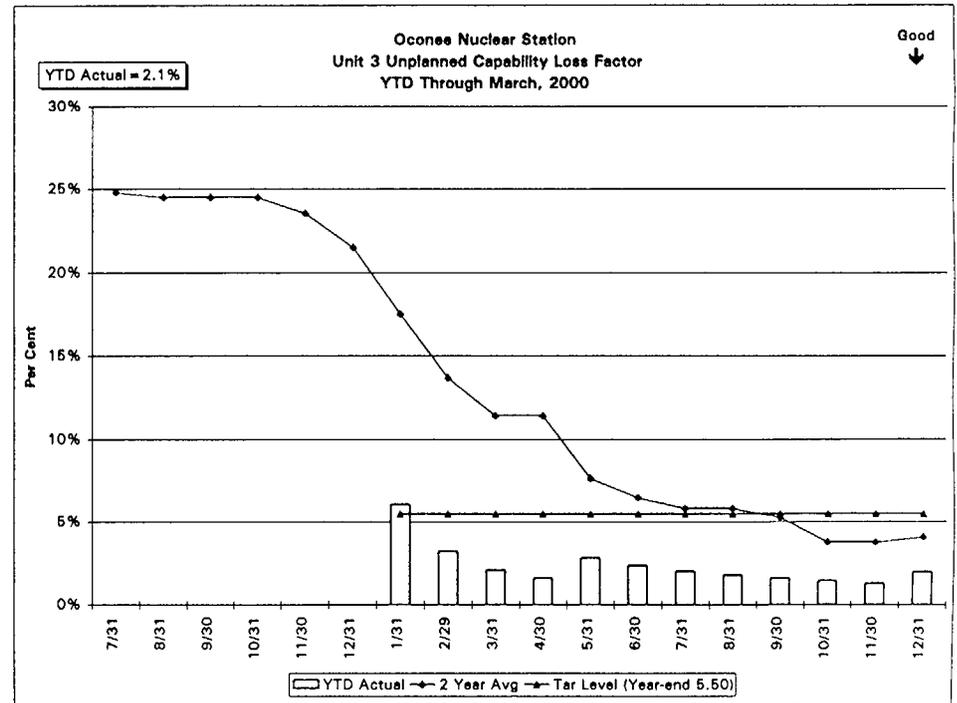
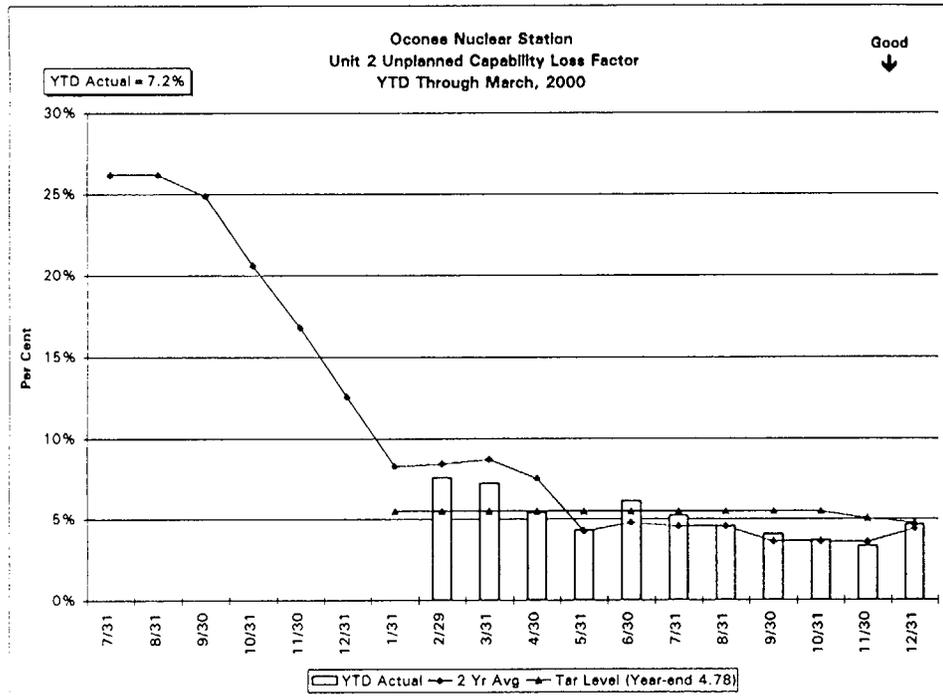
**Unit 2 Notes:**

Feb - offline on 2/23 for 3.9 days to repair feedwater riser leaks.

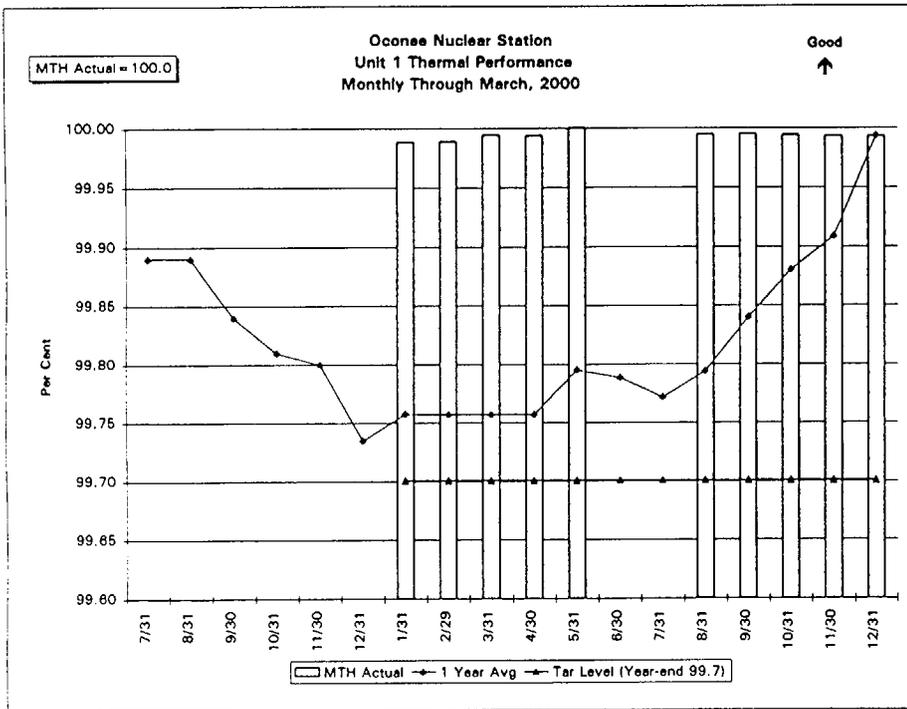
Jun - auto trip on 6/19 at 1015 due to electrical ground that gave a high water level in the MSR's. Returned 6/24.

**Unit 3 Notes:**

Jan - offline on 1/1/99 for 1.45 days due to broken wire associated with CRD fuse F4.







**Definition:**  
Ratio of the design gross heat rate (corrected for mods, etc.) to the adjusted gross heat rate. Gross heat rate is the ratio of total thermal energy produced by the reactor to the total gross electrical energy produced by the generator.

History	Unit 1	Unit 2	Unit 3
1996	99.82	99.98	99.99
1997	99.33	99.87	99.92
1998	99.73	99.99	99.95

**Data Source**  
L P Jarnagin 382-7786

**Contact**  
ME Smith, 382-6386

**Unit 1 Notes:**

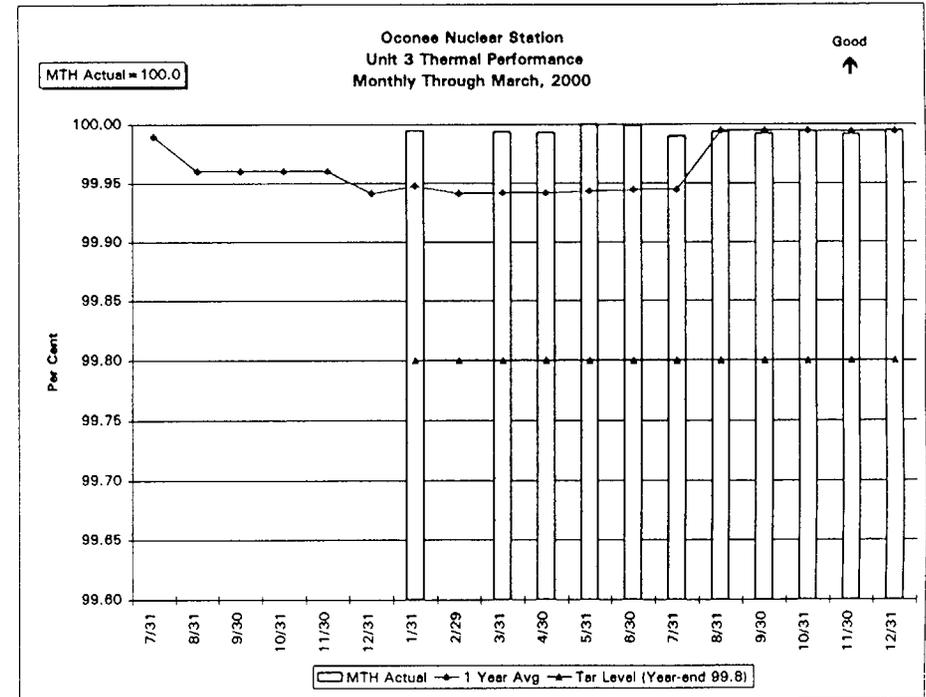
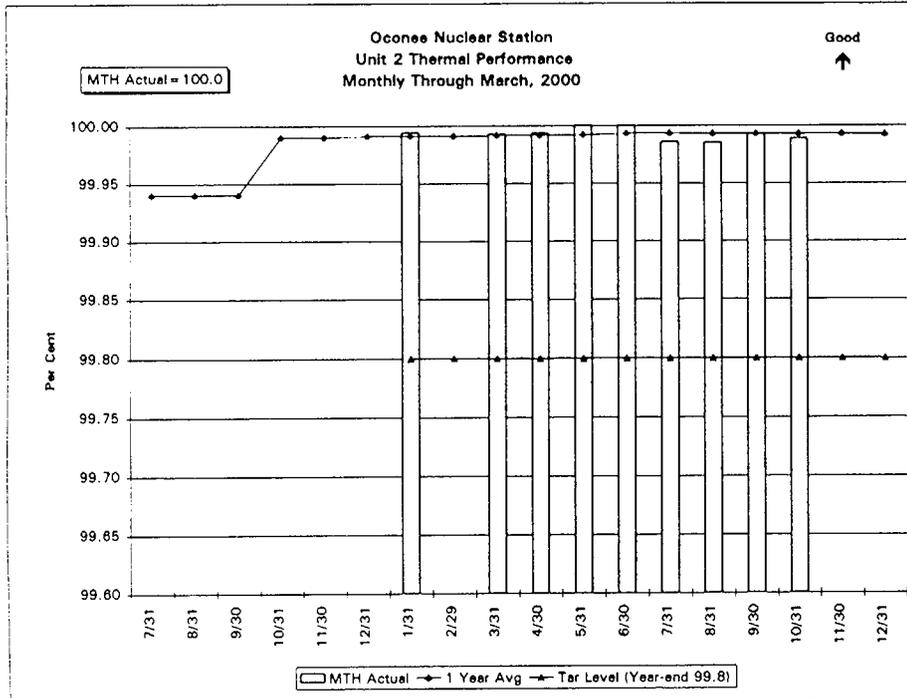
Jun - insufficient data. Unit in refueling.  
Jul - insufficient data. Unit in refueling.

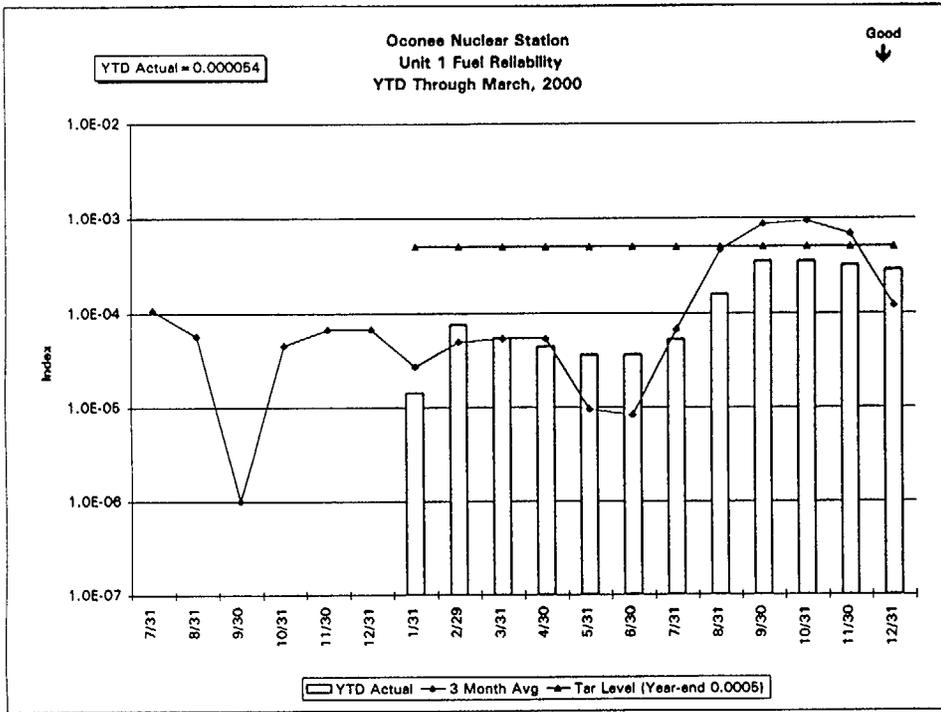
**Unit 2 Notes:**

Feb - unit running on only 2 pumps.  
Nov - insufficient data. Unit in refueling.  
Dec - insufficient data. Unit in refueling.

**Unit 3 Notes:**

Feb - unit running on only 2 pumps.





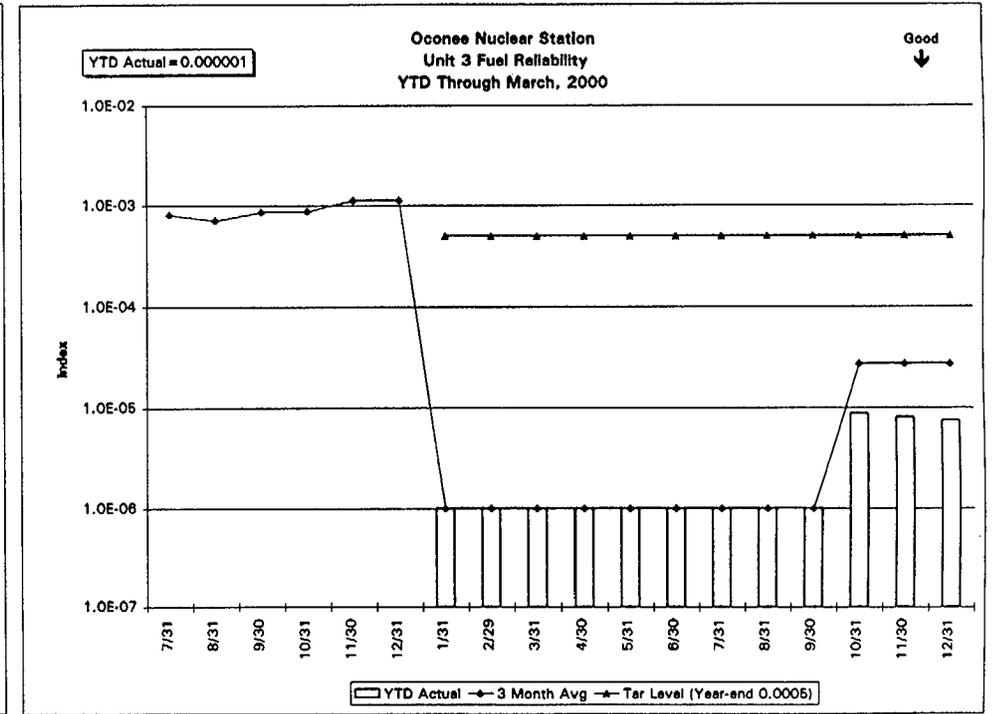
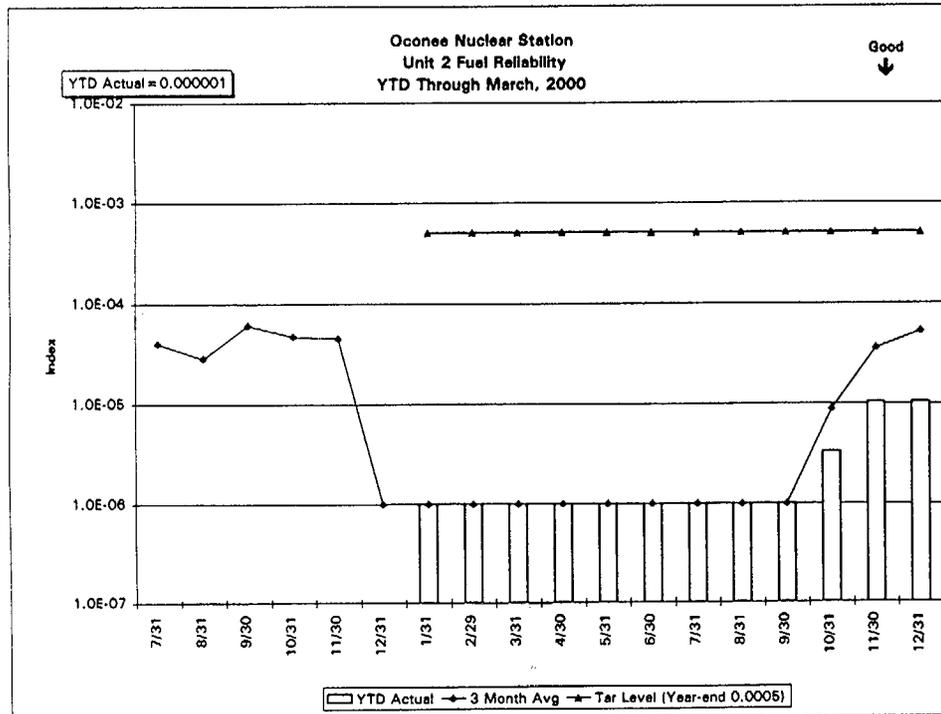
**Definition:**  
The steady-state primary coolant iodine-131 activity (microcuries/gram), corrected for tramp contribution and power level and normalized to a common purification rate and average linear heat generation.

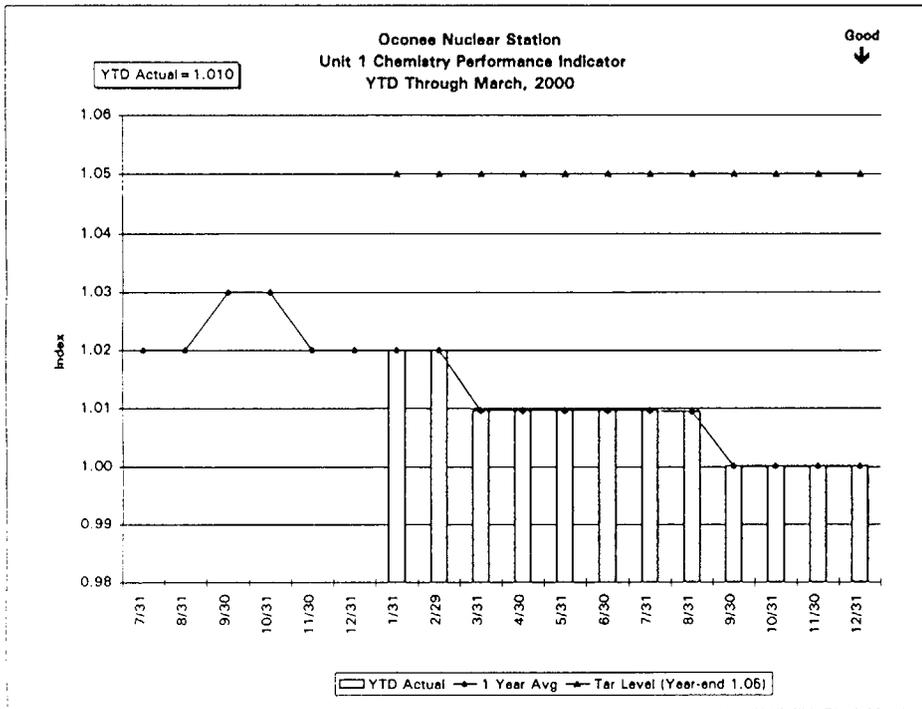
History	Unit 1	Unit 2	Unit 3	Data Source
1996	7.79E-05	1.36E-04	3.55E-03	B D Chapman, 382-6782
1997	5.02E-05	1.21E-04	6.51E-04	
1998	5.42E-05	5.14E-05	7.72E-04	Contact Al Boshers, 382-5161

**Unit 1 Notes:**  
Zero fuel defects. Increase in YTD value due to operating mode. Letdown flow bypassing demineralizers.

**Unit 2 Notes:**  
Zero fuel defects.

**Unit 3 Notes:**  
Zero fuel defects.





**Definition:**

Comparison of selected impurities and corrosion products in the secondary side to a limiting value. These limiting values are the industry medians based on 1993 results. 1.0 is the lowest value attainable.

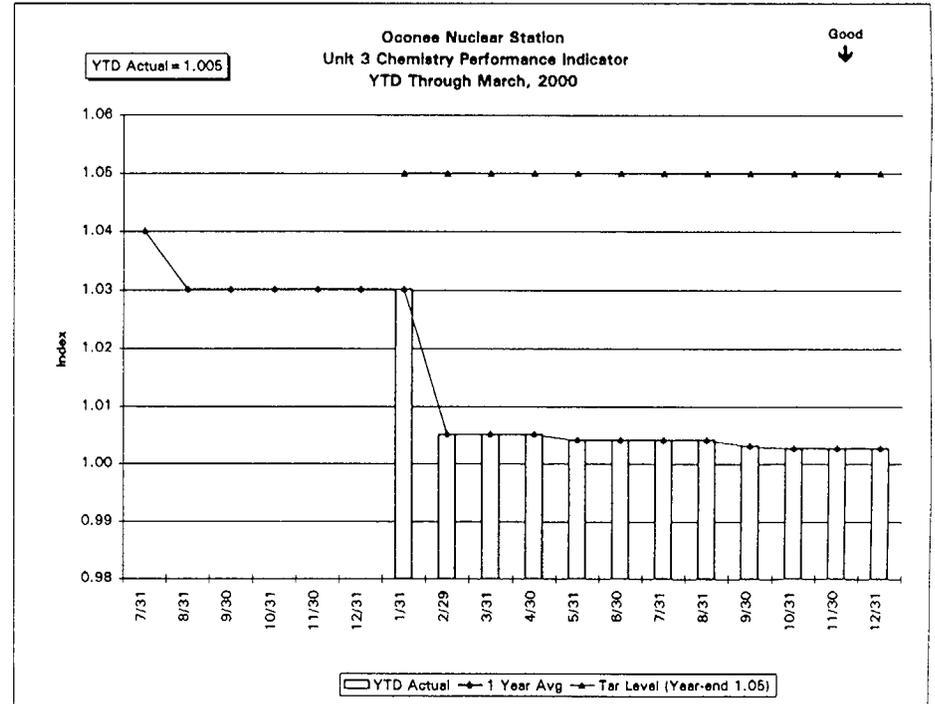
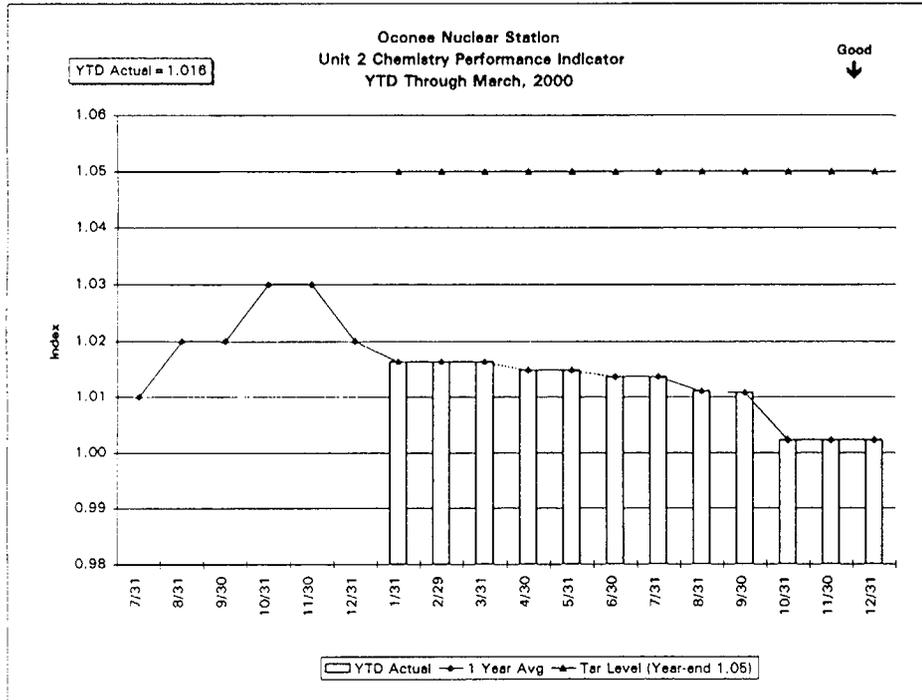
History	Unit 1	Unit 2	Unit 3	Data Source
1996	1.02	1.03	1.04	MS Alley, 382-4609
1997	1.09	1.03	1.03	
1998	1.02	1.02	1.03	Contact R H Anderson, 382-3817

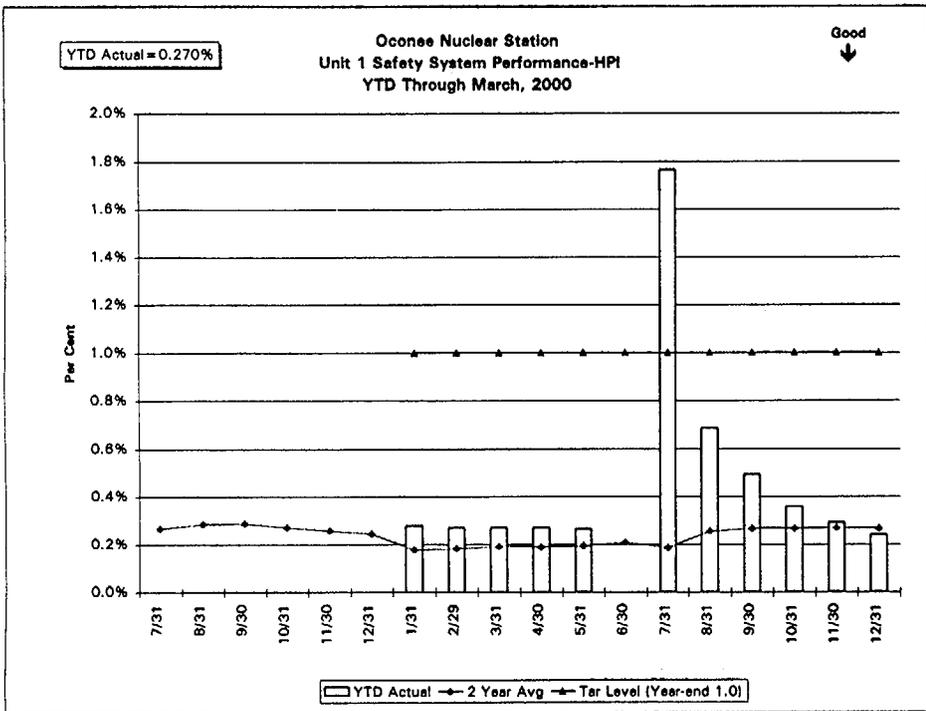
Unit 1 Notes:

Unit 2 Notes:

Unit 3 Notes:

Jan - up due to elevated iron.





**Definition:**

Ratio of the hours a train was unavailable to the hours system was required to be available for service. For a unit, it is the average of the train unavailabilities for the system.

History	Unit 1	Unit 2	Unit 3
1997	0.28%	0.30%	4.35%
1998	0.24%	0.41%	0.38%

**Data Source**

C M Mleenheimer, 382-8751

**Contact**

R H Anderson, 382-3817

**Unit 1 Notes:**

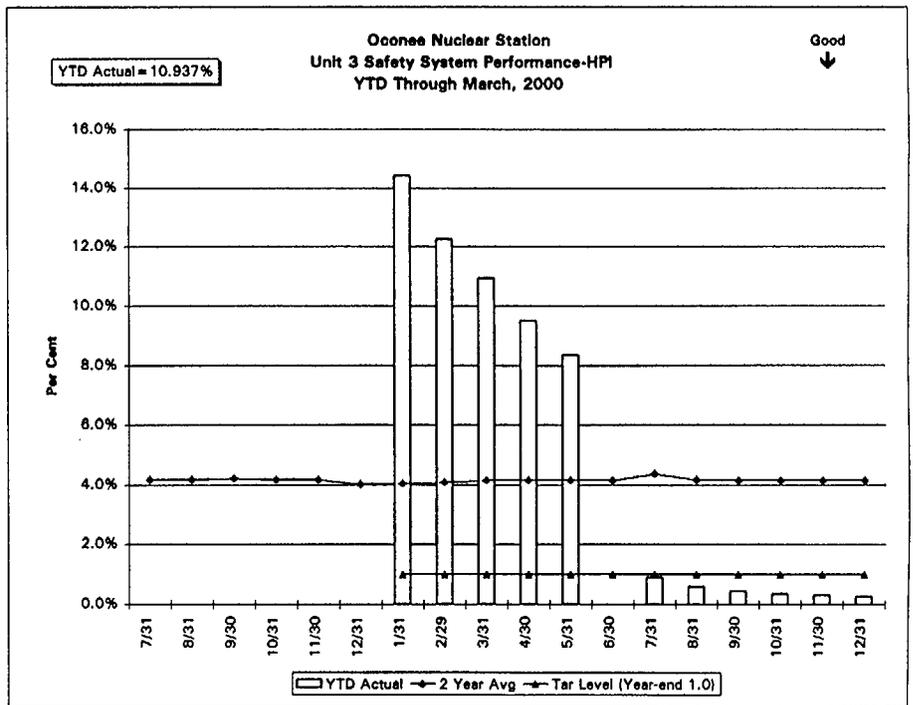
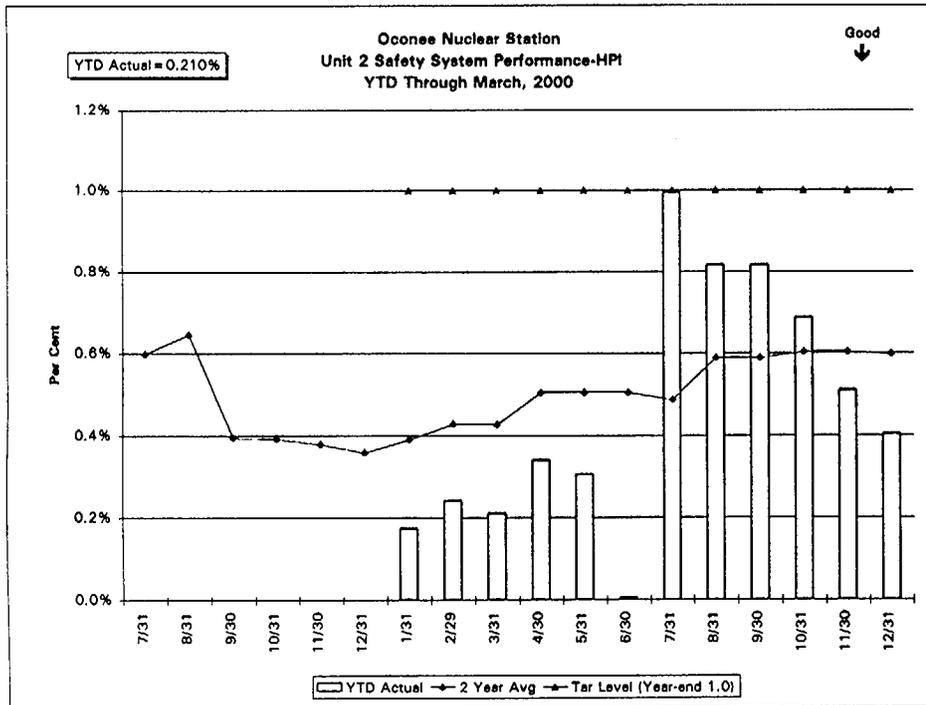
Feb - due to pump pm's and ES on-line testing.  
Jul - due to pump pm's.

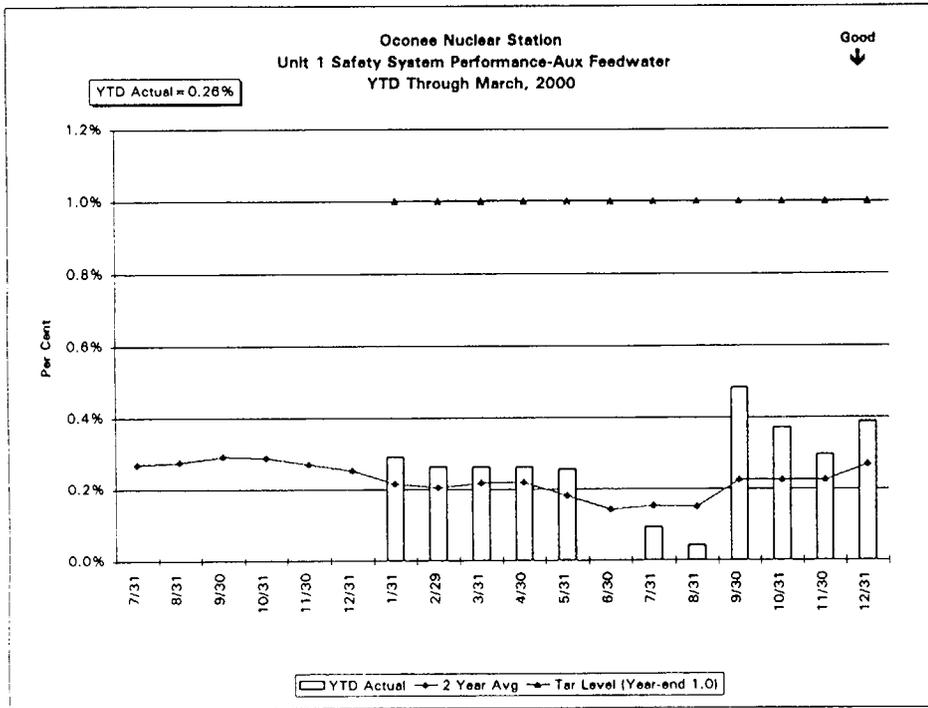
**Unit 2 Notes:**

Feb - due to pump pm's and ES on-line testing.

**Unit 3 Notes:**

Feb - due to pump pm's and ES on-line testing.





**Definition:**

Ratio of the hours a train was unavailable to the hours system was required to be available for service. For a unit, it is the average of the train unavailabilities for the system.

History	Unit 1	Unit 2	Unit 3	Data Source
1996	0.13%	0.25%	0.24%	C M Misenheimer, 382-8751
1997	0.26%	0.18%	0.32%	
1998	0.24%	0.41%	0.36%	Contact R H Anderson 382-3817

**Unit 1 Notes:**

Jan - planned maintenance.

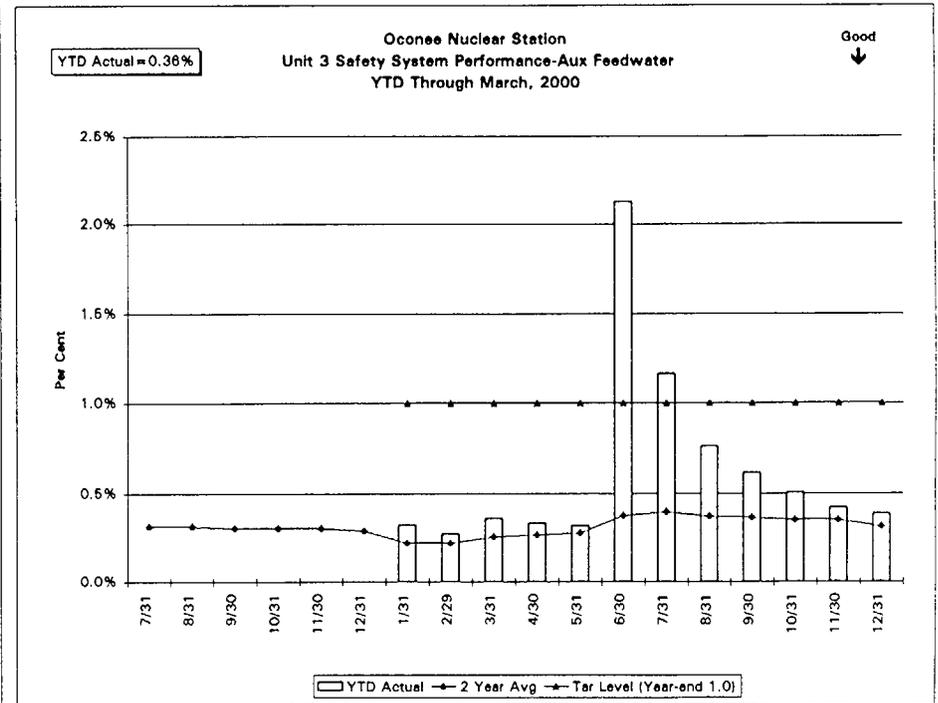
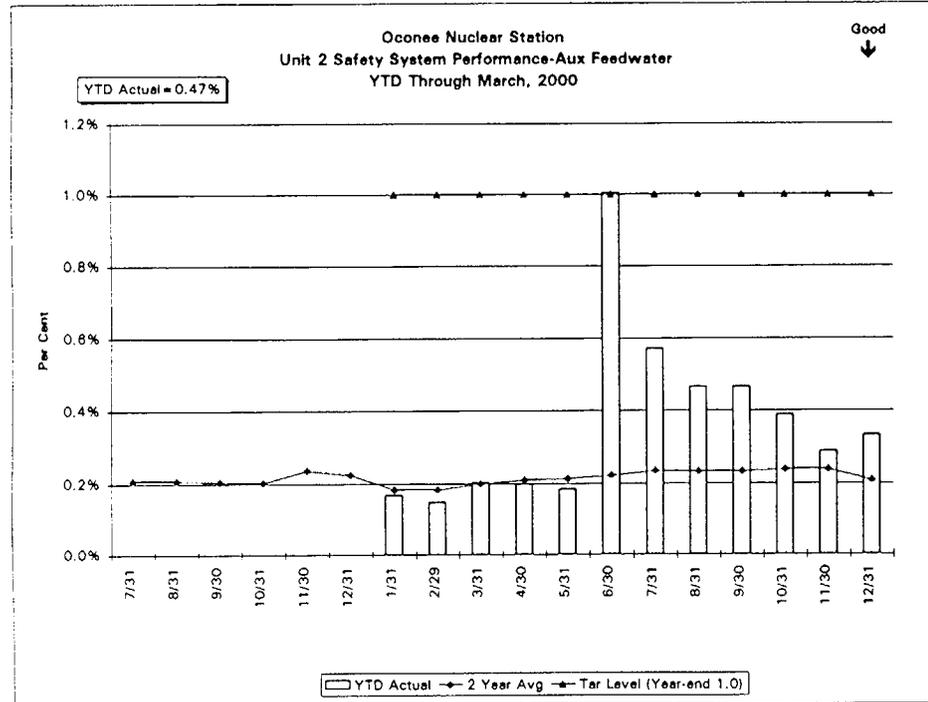
**Unit 2 Notes:**

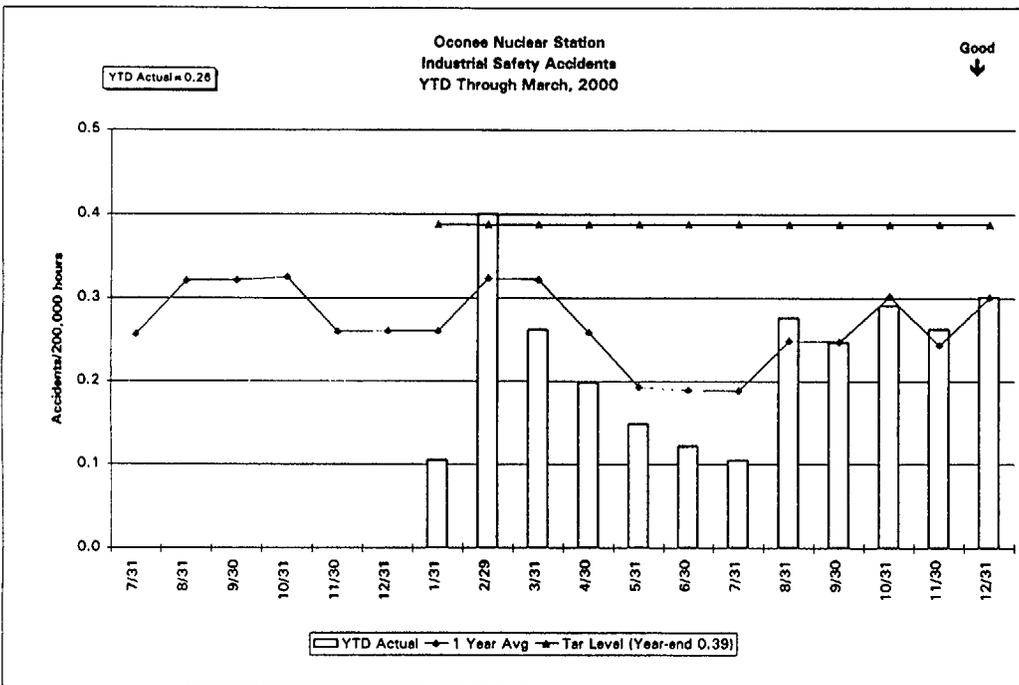
Jan - planned maintenance.

**Unit 3 Notes:**

Jan - planned maintenance.

Jul - planned maintenance.





**Definition:**

The number of accidents per 200,000 person hours worked for all utility personnel permanently assigned to the station that result in any of the following:

- one or more days of restricted work (excluding day of accident)
- one or more days away from work (excluding the day of the accident)
- fatalities

**Data Source**

Teresa Merck, 885-3020

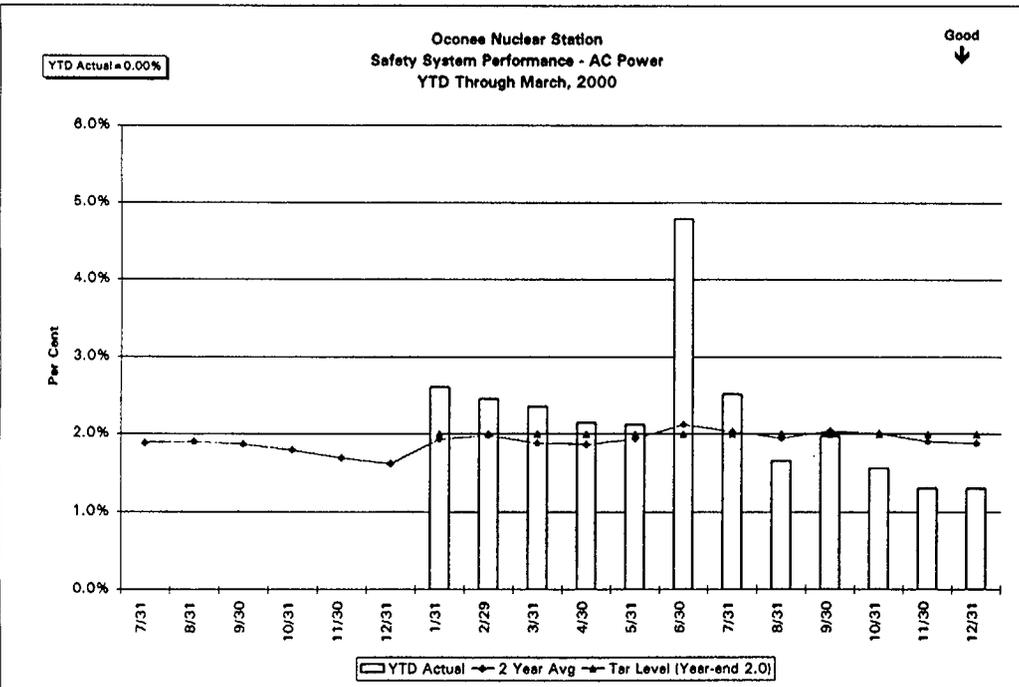
History	Station		
	Rest.	Lost Wor	Fatali.
1996	4	8	0
1997	3	0	0
1998	2	2	0

**Contact**

R H Anderson 382-3817

**Industrial Safety Accident Notes\_YTD**

Hours	Restricted	Lost Work	Fatalities



**Definition:**

Ratio of the hours a train was unavailable to the hours system was required to be available for service. For a unit, it is the average of the train unavailabilities for the system.

History	Station
1996	1.77%
1997	2.12%
1998	1.12%

**Data Source**

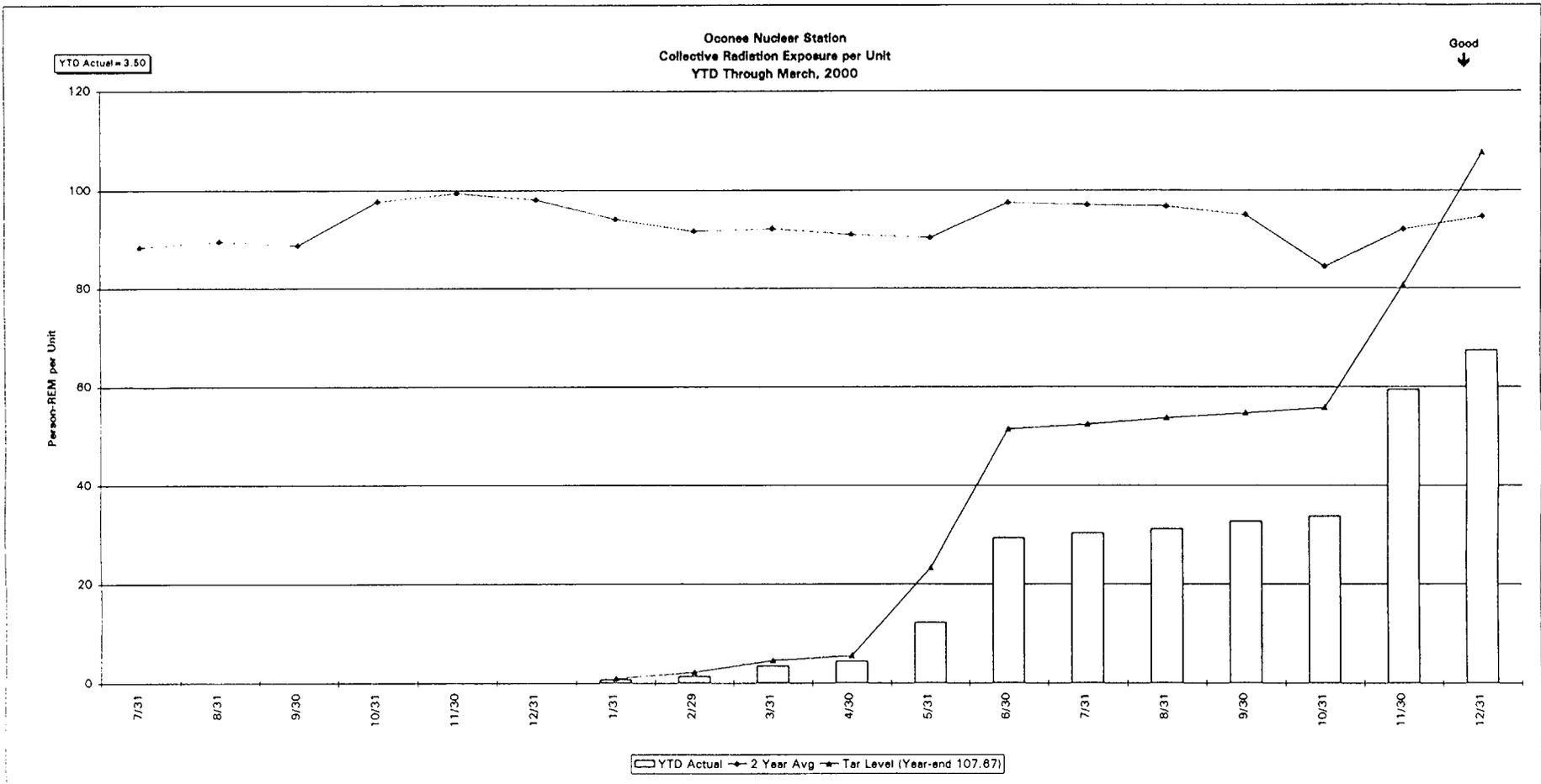
C M Misenheimer, 382-6751

**Contact**

RH Anderson, 382-3817

**AC Power Notes:**

- Jan - load rejection testing and mod work.
- Mar - planned testing.
- Jul - planned testing and pm's.
- Aug - planned turbine inspection.
- Oct - planned work on Keowee Unit 1 and Unit 2.



**Definition:**  
The total external whole-body dose received by all personnel (including contractors and visitors) coming on site during a time period.

**Data Source**  
JR Fox, 382-4378

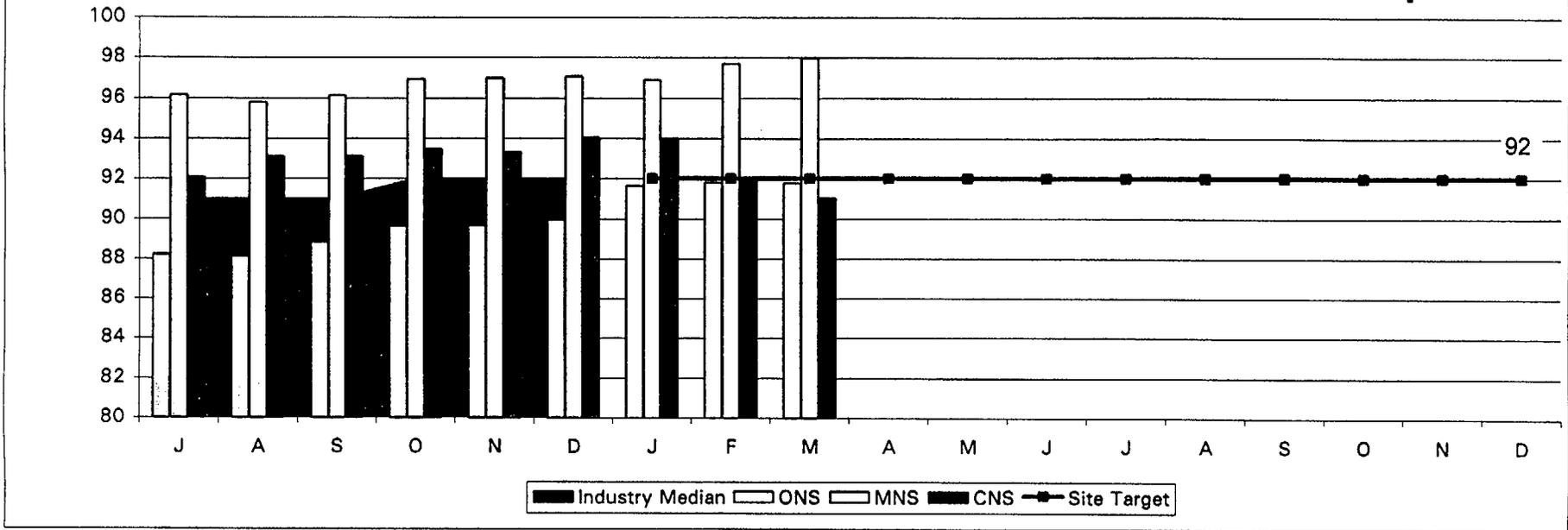
**Contact**  
RH Anderson, 382-3817

History	Per Unit
1996	85.8
1997	74.2
1998	122.0

**Radiation Exposure Notes:**  
Lower exposure due to good outage performance 1) use of head shielding, 2) use of missile shield and 3) shutdown process.

## INPO Performance Indicator Index Comparison One Month Delay YTD Through March, 2000

Good  
↑



### Definition

The Performance Indicator Index is a measure of overall performance. It is calculated using a weighted combination of the ten performance indicator values and has a range from 0 to 100. A higher index generally represents better overall performance.

NOTE: INDUSTRY MEDIAN WILL BE UPDATED QUARTERLY AND WILL LAG BY A QUARTER.

### Individual Indicator with Index less than 92

Indicators	ONS1	ONS2	ONS3	MNS1	MNS2	CNS1	CNS2
Unit Capability Factor		84.39					85.33
Unplanned Capability Loss Factor	53.24	70.63	70.76	90.35		67.53	43.89
Safety System Performance:							
Hi-pressure Injection							
Auxiliary Feedwater							
Emergency AC Power	83.86	83.86	83.86	90.73	90.73	81.22	81.22
Unplanned Auto Scrams		62.68					
Collective Radiation Exposure							
Fuel Reliability							
Thermal Performance							
Chemistry							
Industrial Safety Accident Rate							

### March, 2000

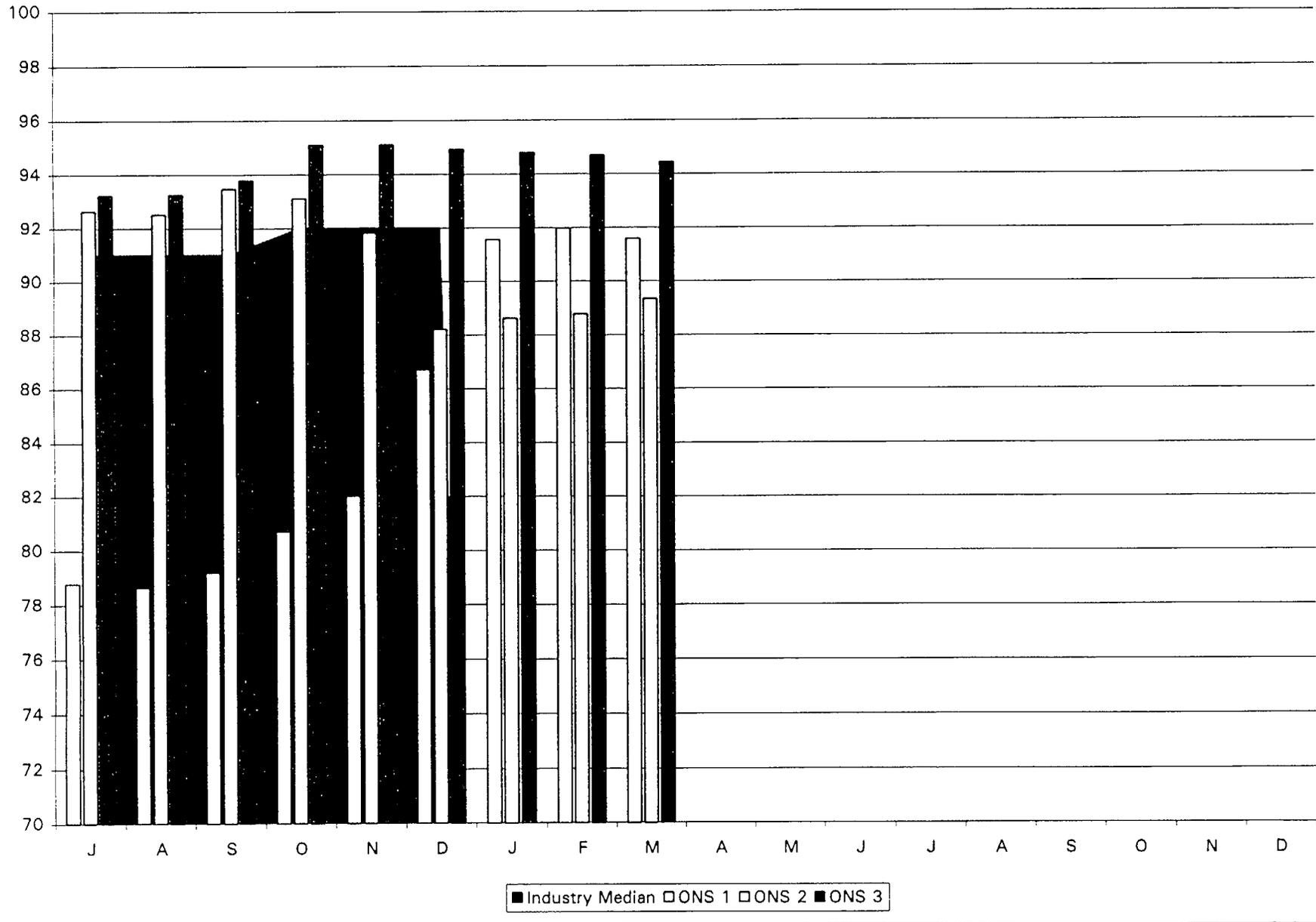
ONS	91.79
MNS	[REDACTED]
CNS	91.05
SYS	[REDACTED]

4Q99 Industry  
Median - 91.0

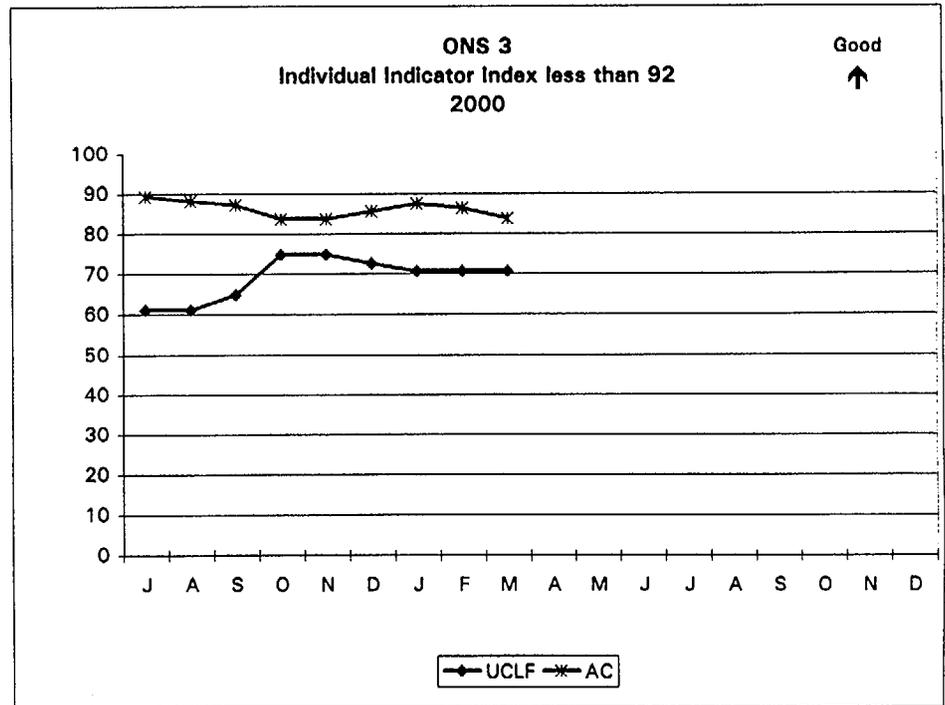
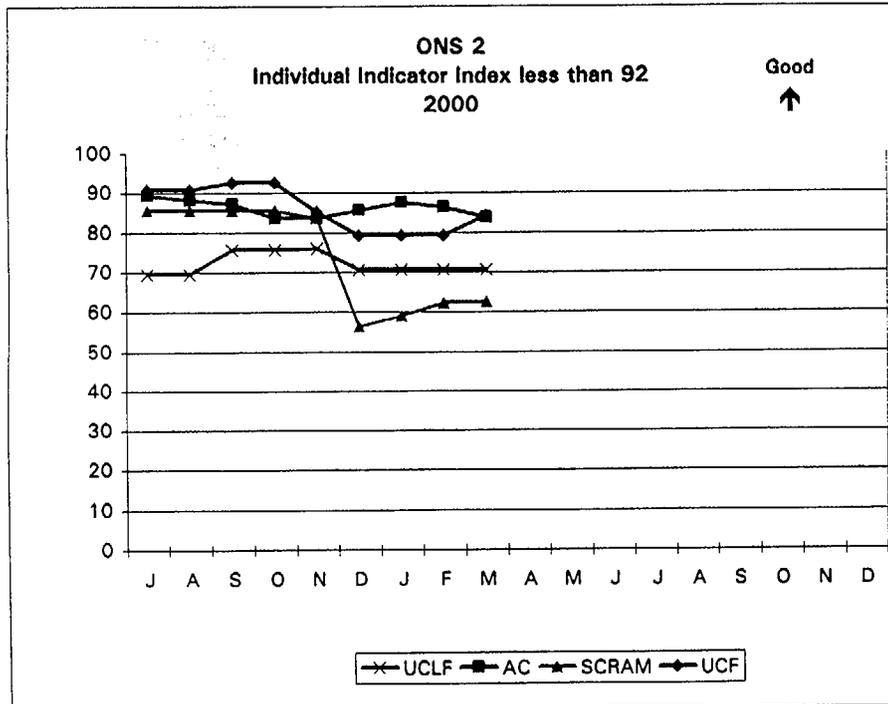
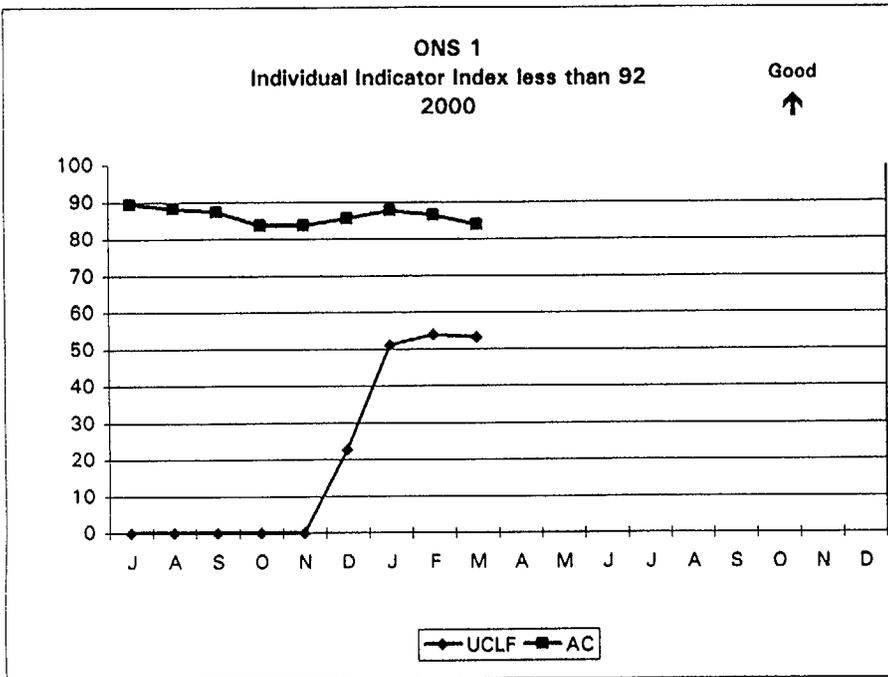
[REDACTED]	Less than 89 (RED)
[YELLOW]	Equal to or greater than 89 but less than 92 (YELLOW)
[GREEN]	92 or greater (GREEN)

INPO Performance Indicator Index Comparison One Month Delay  
 ONS YTD Through March, 2000

Good  
 ↑



UCF - Unit Capability Factor  
 UCLF - Unplanned Capability Loss Factor  
 SCRAM - Unplanned Auto Trips Per 7000 Hours Critical  
 HPI - High Pressure Safety Injection  
 AUX - Auxiliary Feedwater  
 AC - Emergency AC Power  
 TPI - Thermal Performance  
 FRI - Fuel Reliability  
 CHEM - Chemistry  
 EXP - Radiation Exposure  
 SAFE - Industrial Safety Accident Rate



# Nuclear Safety

## PERFORMANCE INDICATOR INDEX

### DEFINITION:

The Performance Indicator Index is a weighted summation of scaled indicator point values based on the following 11 factors INPO has identified for safe and successful plant operation:

Unit Capability Factor - 2 year average  
Unplanned Capability Loss Factor - 2 year average  
Unplanned Automatic Scrams per 7000 hours of Reactor Critical Operation - 2 year average  
HPI Safety Injection System Unavailability - 2 year average  
Emergency Feedwater System Unavailability - 2 year average  
Emergency AC Power System Unavailability - 2 year average  
Thermal Performance - 1 year average  
Fuel Reliability - 3 month average  
Chemistry Index - 1 year average  
Collective Radiation Exposure - 2 year average person rem/per unit  
Industrial Safety Accident Rate - 1 year average rate per 200,000 work hours

### 2000 MEASURES SUCCESS CRITERIA:

GREEN: Index Value  $\geq$  92.0 (Target Incentive Performance)  
YELLOW: Index Value  $\geq$  89.0 (Minimum Incentive Performance)  
RED: Index Value  $<$  89.0

### CURRENT MONTH STATUS: YELLOW

Unit 1: 91.6  
Unit 2: 89.35  
Unit 3: 94.43  
ONS Total: 91.79

MNS Total: 97.98  
CNS Total: 91.05  
SYSTEM Total: 93.35  
INDUSTRY Median: 91.0

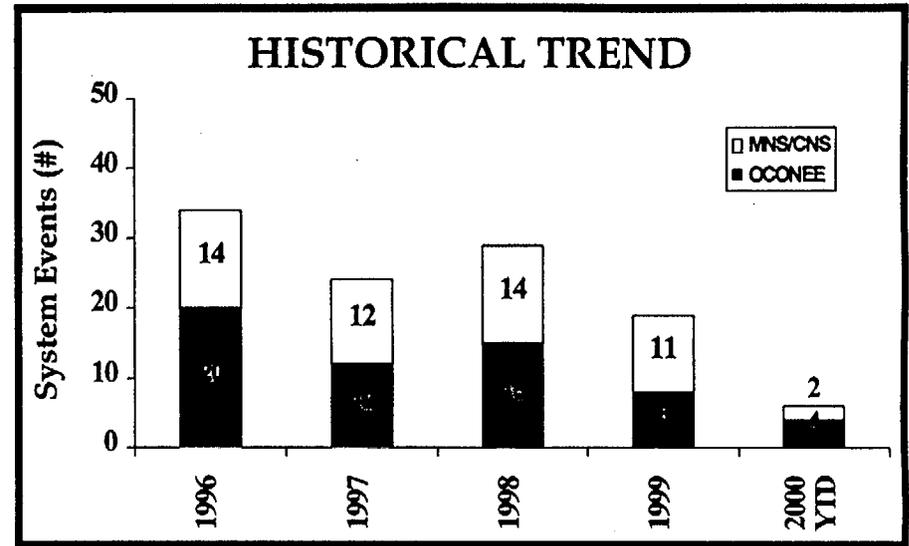
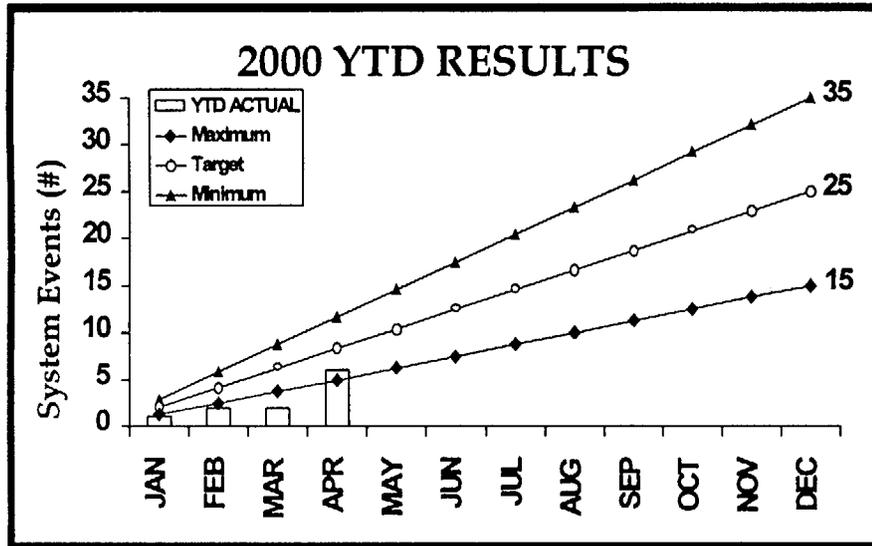
NOTE: - Measure is typically reported one month behind due to data gathering requirements.

# Nuclear Safety

## NUCLEAR SYSTEM EVENTS



(Green)



### 2000 OCONEE EVENTS

<u>Date</u>	<u>Unit</u>	<u>Description of Event</u>
1/3/00	Unit 3	Unit 3 Automatic Trip after manual main turbine trip due to instrument failure (NAS)
3/9/00	1,2,3	Loss of Control Room Chilled Water (3 NSF's - 1 per unit)

Nuclear Safety  
**NUCLEAR SYSTEM EVENTS (cont'd)**

McGUIRE

CATAWBA

Date

2/13/00

2/29/00

Unit

Unit 1

Unit 2

Description of Event

Unit 1 Reactor Trip Caused by turbine trip (NAS)

2B D/G Breaker Failure (NSF)

# Nuclear Safety

## NUCLEAR SYSTEM EVENTS

### DEFINITION:

Combined events for ONS, MNS and CNS defined as follows:

NRC - Automatic SCRAMs while critical, Safety System Actuation's, Safety System Failures and Significant Events;

INPO - Significant Events;

DUKE - Precursor Events, Significant Shutdown Events and LERs due to Personnel Error.

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** YTD Actual and 3-month trend indicate Target ( $\leq 25$  events) is likely to be achieved.

**YELLOW:** YTD Actual and 3-month trend indicate Minimum ( $\leq 35$  events) is likely to be achieved.

**RED:** YTD Actual and 3-month trend indicate Minimum is unlikely to be achieved ( $> 35$  events).

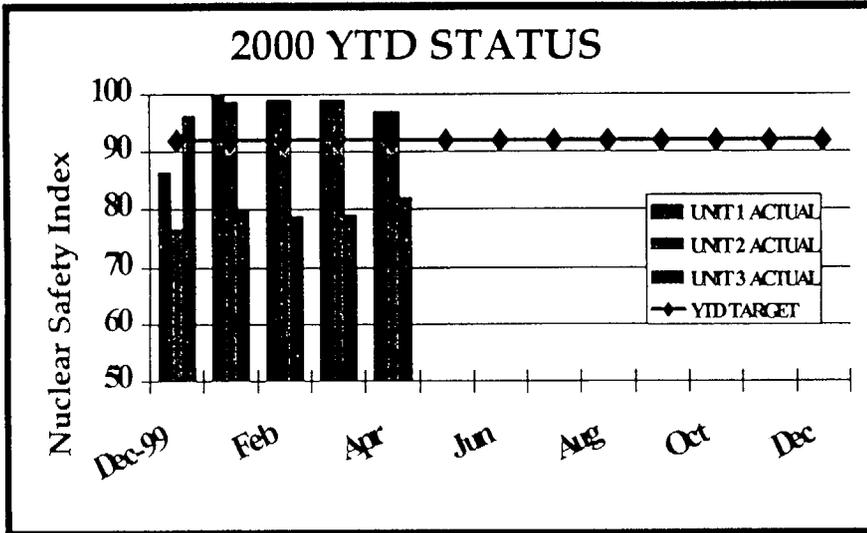
### CURRENT MONTH STATUS:

**GREEN:** Duke's nuclear system recorded 4 new events in April bringing the system total to 6 YTD compared to the target of 8.

# Nuclear Safety NUCLEAR SAFETY INDEX



(GREEN)



### ONS UNIT 1 DATA SHEET

Parameter	Range (0 - 100)	Weight	2000 YTD Actuals
Reactor Trips	4.0 - 0.0	20 %	0
Precursors	1.0 - 1.0	25 %	0
SSE	1.0 - 0.0	25 %	0
HP Injection	.03 - .0045	10 %	0.00716
Aux. Feedwtr.	.04 - .0045	10 %	0.00640
Emer. AC Pwr.	.05 - .0045	10 %	0.0221
<b>Index Value</b>			<b>96.98</b>

### ONS UNIT 2 DATA SHEET

Parameter	Range (0 - 100)	Weight	2000 YTD Actuals
Reactor Trips	4.0 - 0.0	20 %	0
Precursors	1.0 - 1.0	25 %	0
SSE	1.0 - 0.0	25 %	0
HP Injection	.03 - .0045	10 %	0.00326
Aux. Feedwtr.	.04 - .0045	10 %	0.00481
Emer. AC Pwr.	.05 - .0045	10 %	0.0221
<b>Index Value</b>			<b>96.98</b>

### ONS UNIT 3 DATA SHEET

Parameter	Range (0 - 100)	Weight	2000 YTD Actuals
Reactor Trips	4.0 - 0.0	20 %	1
Precursors	1.0 - 1.0	25 %	0
SSE	1.0 - 0.0	25 %	0
HP Injection	.03 - .0045	10 %	0.00672
Aux. Feedwtr.	.04 - .0045	10 %	0.00472
Emer. AC Pwr.	.05 - .0045	10 %	0.0221
<b>Index Value</b>			<b>81.98</b>

# Nuclear Safety

## NUCLEAR SAFETY INDEX

### DEFINITION:

The Nuclear Safety Index is a weighted index designed to objectively track the performance of each individual nuclear unit. The objective is to focus on those aspects of plant operation which directly relate to the prevention of significant plant incidents related to Nuclear Safety and maintain a high level of readiness to mitigate plant accidents.

The index is calculated by obtaining the number of reactor trips requiring a scram, accident precursor events, significant shutdown events, and the safety system unavailability per unit. For each of these parameters, the range of the scoring index is selected to represent the expected span of the parameter. The scoring index is calculated for each parameter and multiplied by a weighting factor since the parameters do not all have the same nuclear safety significance. The sum of these weighted indexes for each parameter becomes the total unit Nuclear Safety Index.

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** Nuclear Safety Index greater than or equal to 92.00%  
**YELLOW:** Not applicable  
**RED:** Nuclear Safety Index less than 92.00%.

### CURRENT MONTH STATUS:

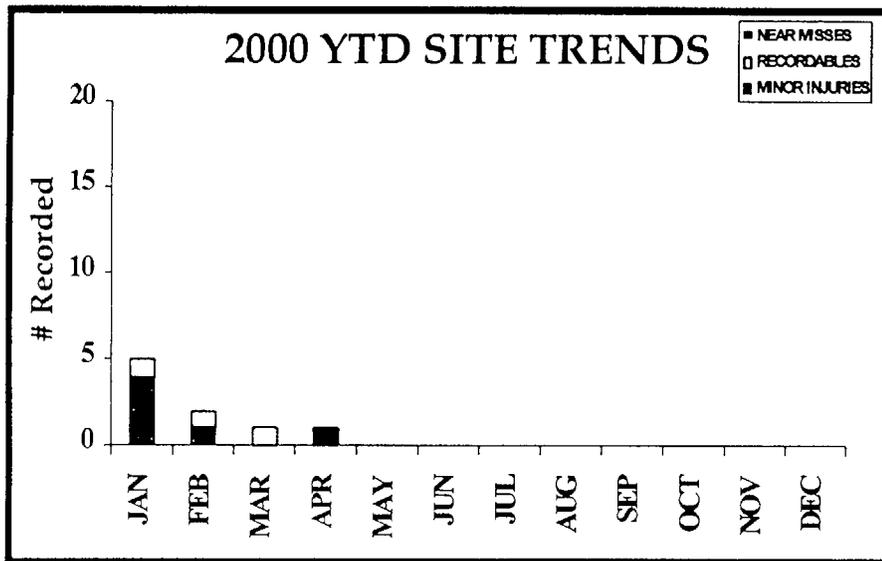
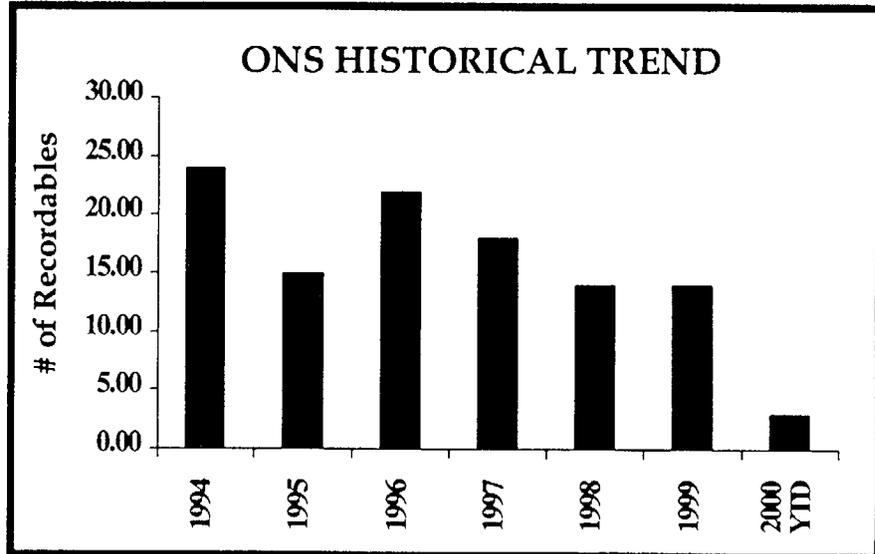
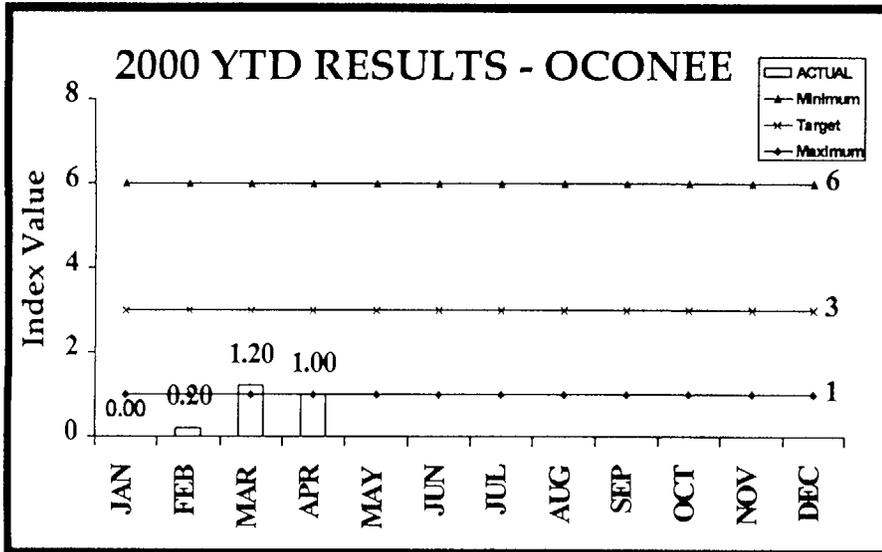
**GREEN:** Through April, the Oconee site (92.0) is just barely meeting the target (92.0). Individually, Unit 1 (97.0) has had no events. Unit 2 (97.0) has had no events. Unit 3 (82.0) had a reactor trip in January. Keowee unavailability greater than 1.0% has reduced the score of each unit and is broken down as follows:

In January, KHU-1 was unavailable for 8.9 hours due to PMs and KHU-2 was unavailable for 34.0 hours (5.0 unplanned) due to ACB-2 work. In February, KHU-1 was unavailable for 17.8 hours due to change out of CX transformer taps. In March KHU-1 (24.2 hours) and KHU-2 (11.6 hours) were unavailable due to planned quarterly maintenance and mod work.

# Nuclear Safety INDUSTRIAL SAFETY INDEX



(Green)



### 2000 OCONEE RECORDABLE INJURIES

Date	Division	Description	Lost Workdays	Restricted Workdays
02/24	C&F	Tendonitis in wrist	0	0
03/09	Maint	Strain to neck	0	0
01/10	HR	Torn cartilage in knee	4	3

# Nuclear Safety

## INDUSTRIAL SAFETY INDEX

### DEFINITION:

The Industrial Safety Index is measured at the site level and is calculated as follows:

(Total Severity Rate + OSHA Recordable Case Rate) / 2 where:

Severity Rate =  $\frac{[(\text{Lost Work Days} + (\text{Restricted Work Days} \times 0.33) + (\text{Fatalities} \times 6000)) \times 200,000]}{\text{Total Cumulative Work Hours}}$

OSHA Case Rate =  $\frac{(\text{Total Cases} \times 200,000)}{\text{Total Cum. Work Hours}}$

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** Safety Index under target with no adverse trends indicated.

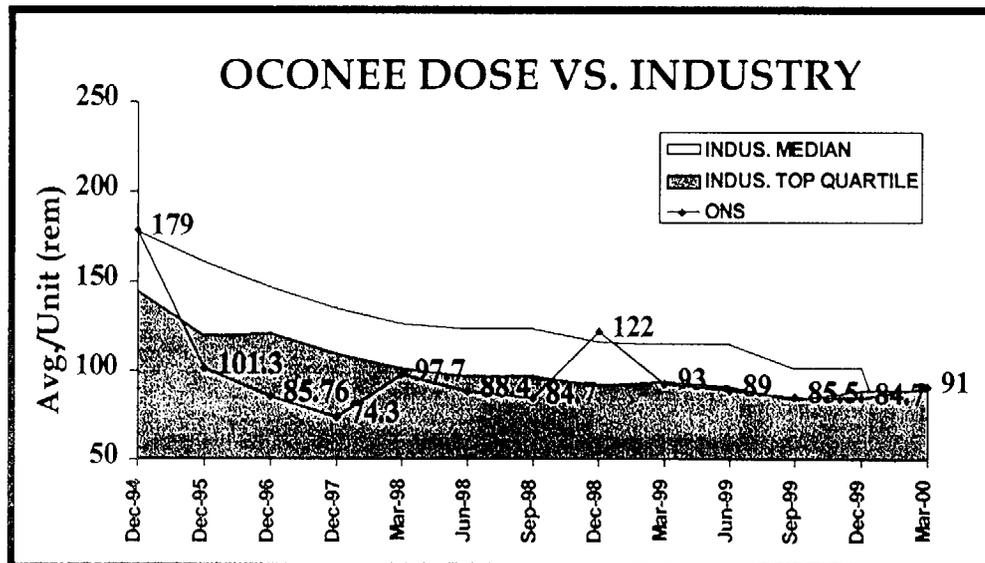
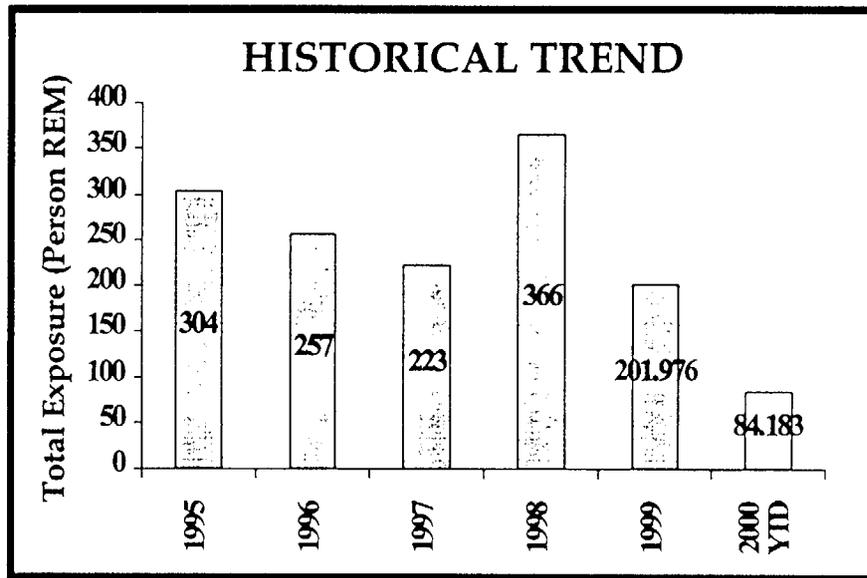
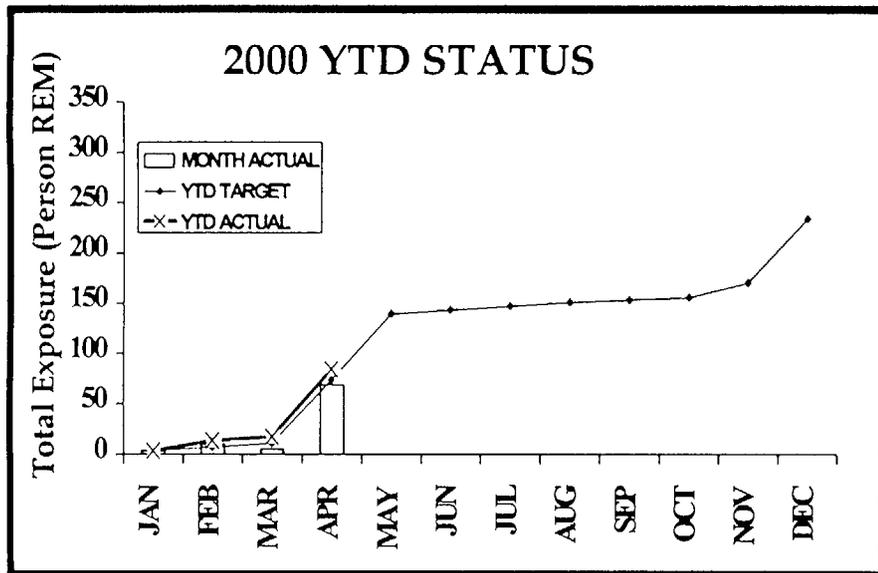
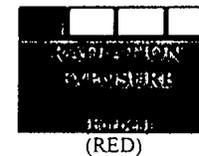
**YELLOW:** Safety Index under target but trend indicates year-end achievement in doubt **OR**  
Safety Index over target but trend indicates year-end goal is recoverable.

**RED:** Safety Index over target and year-end goal is unrecoverable or unlikely to be achieved.

### CURRENT MONTH STATUS:

GREEN - ONS has 3 recordables YTD April.

# Nuclear Safety RADIATION EXPOSURE



# Nuclear Safety

## RADIATION EXPOSURE

### DEFINITION:

Actual whole-body EFPD (TEDE) received by all personnel at ONS in 2000 (including contractors and visitors).. The 2000 goal is 235 rem.

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** Dose under YTD goal with no adverse trends indicated.

**YELLOW:** Dose under YTD goal but trend indicates year-end goal in doubt OR

Dose over YTD goal but trend indicates year-end goal recoverable.

**RED:** Dose trending over YTD goal with year-end goal unrecoverable or unlikely to be achieved.

**NOTE:** Site RP, in setting the 2000 dose goals assumed non-outage dose as linear throughout the year. In actuality, the monthly dose goal will be periodically adjusted to reflect movement of significant non-outage dose jobs from month-to-month.

### CURRENT MONTH STATUS: RED

Total site exposure for April was 68.714 rem. The estimate for April was 63.553 rem.

Unanticipated power entries during April contributed 1.675 rem. These included U1 entries to replace 1B RBCU Motor, U3 entries to test RBCIUs, and the U2 entry to secure leak on 2HP-20.

The Unit 3 refueling outage began this month with an April exposure estimate of 68.188 rem. Total outage dose for this period was 64.320 rem.

**Total exposure for the year-to-date is 84.183 rem out of an estimate for this period of 74.826 rem.**

Contaminated areas of the plant increased to 7,449 sq. ft. due to U3's refueling outage.

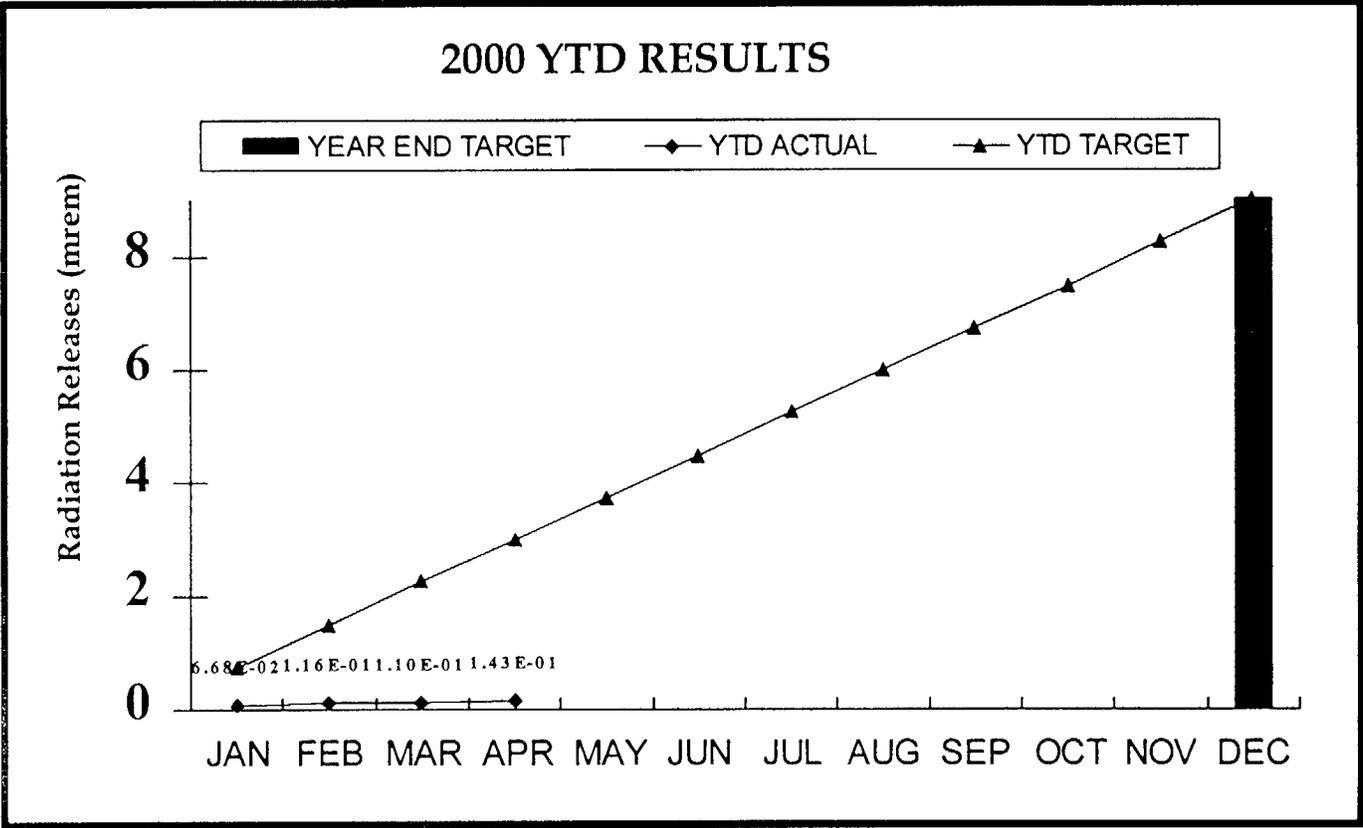
Present number of posted hot spots is 43. Three additional hotspots were added associated with U3's LPI cooling and building spray system.

Oconee has moved into the Second Quartile with 91 rem/unit. INPO First Quartile "Best" is 89 rem/unit. (Information from INPO is thru the fourth quarter 1999.)

# Nuclear Safety RADIATION RELEASES



(GREEN)



# Nuclear Safety

## RADIATION RELEASES

### DEFINITION:

Radiation Releases is a measure of the exposure (mrem) received by the public ("Maximum Exposed Individual") as a result of gaseous and liquid radioactive releases made from the plant due to routine operations. It is imperative that we keep this specific measure and results in front of us to ensure optimum performance. Exposure to the public is a critical item. Oconee's annual goal is 9 mrem which equates to 5% of the Total Annual (ALARA) Exposure Limit to the public as defined in 10CFR50 Appendix I.

### 2000 MEASURES SUCCESS CRITERIA:

- GREEN:** Radiation releases less than YTD goal with no adverse trends noted  
**YELLOW:** Radiation releases exceed YTD goal but trend indicates year-end goal achievable OR  
less than YTD goal but trend indicates year-end goal is in doubt.  
**RED:** Radiation releases exceed YTD goal and year-end goal appears unrecoverable or unlikely to be achieved.

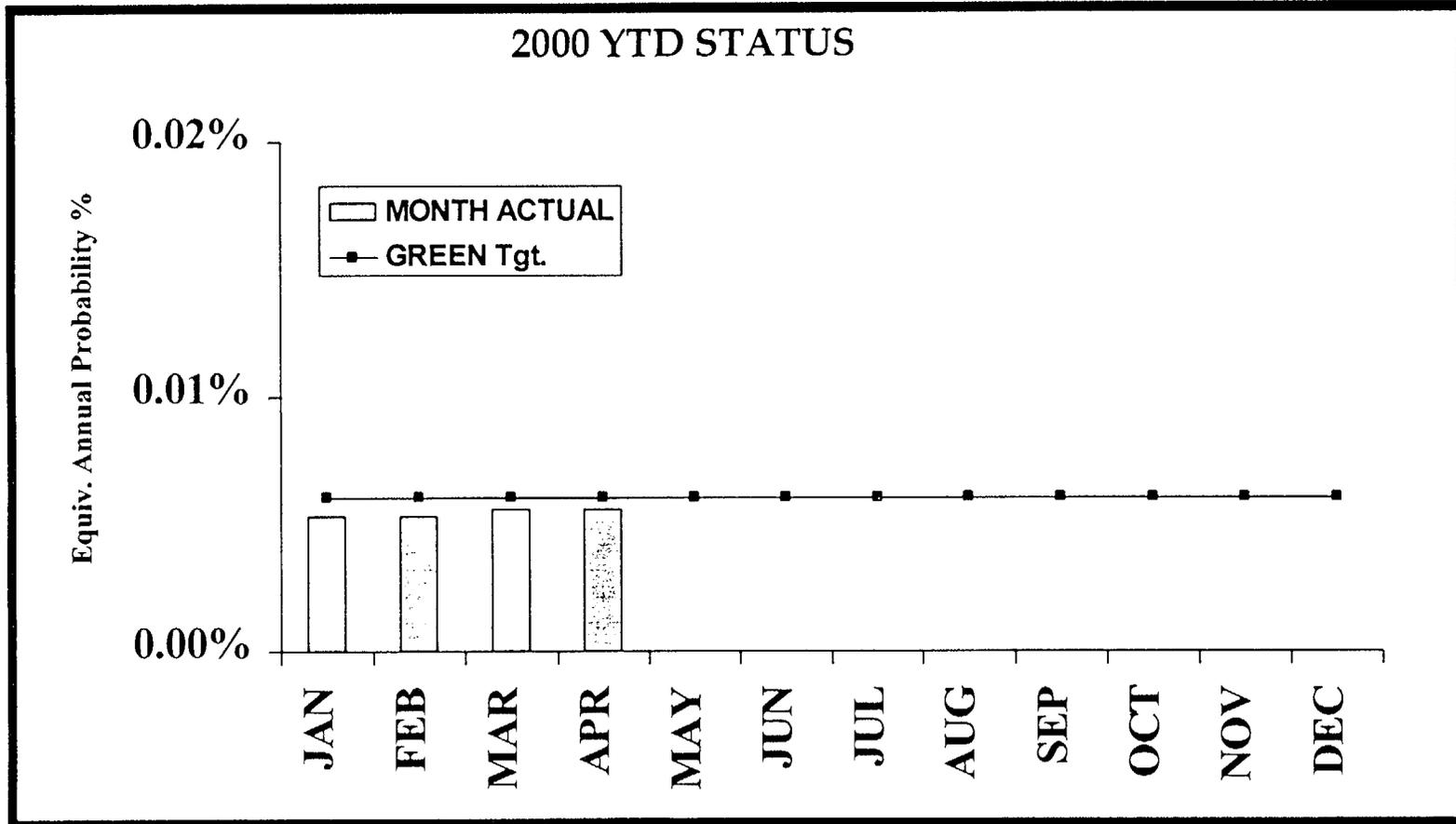
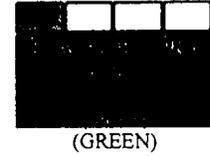
### CURRENT MONTH STATUS:

**GREEN:** YTD Radiation Releases total 1.10E-01 mrem, well below our year end goal of 9 mrem . The YTD total dose is comprised of the following:

Liquid Total Body Dose:	4.78E-02 mrem
Liquid Max Organ Dose:	8.07E-02 mrem
Gas Air Gamma Dose:	2.03E-04 mrad
Gas Air Beta Dose:	5.40E-04 mrad
Gas Max Organ Dose:	1.41E-02 mrem

# Nuclear Safety

## REACTOR CORE SAFETY



# Nuclear Safety

## REACTOR CORE SAFETY

**DEFINITION:** The Reactor Core Safety measure is based on the desire to make use of risk-informed decision making to the extent reasonable and practical in the design, construction, and reliable operations of the nuclear power plants. The intent is to avoid accidents of concern and to maintain high readiness of safety systems and operator response capability, thereby achieving a high level of safety margin with respect to potential accidents resulting in core damage.

Proper planning of equipment and unit outages, integrated safety assessments by the ORAM-SENTINEL tool, recognizing and minimizing operation at high risk conditions, and appropriately balancing outage and innage work are considered to be the key elements of operational strategy to maintain the desired level of core damage safety margin.

A value for each individual reactor unit based on that unit's average baseline core damage frequency (excluding seismic events) will be used as the target value, considering both at power and shutdown conditions. This goal results in a very high safety margin (less than one chance in 10,000) of core damage accidents of concern and permits prudent actions to maintain power production capability and risk management.

Using the ORAM-SENTINEL tool, the core damage risk profile of each reactor unit will be evaluated based on actual out of service hours of the vital plant equipment. Calculations will be performed for both innage conditions and shutdown conditions to capture the total core damage risk. In addition to the ORAM-SENTINEL values of the core damage risk profile, any contribution from a core damage precursor event will be added to obtain the total risk value.

The Reactor Core Safety measure for each unit will be computed as the total of:

Innage Core Damage Probability (excl. seismic) + Outage Core Damage Probability + Precursor Core Damage Probability

The year-to-date values will be compiled and reported on a monthly basis.

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** Core Damage Probability < 6.0E-5 (6/100,000) per year.

**YELLOW:** Core Damage Probability  $\geq$  6.0E-5 and  $\leq$  7.5E-5 per year

**RED:** Core Damage Probability > 7.5E-5 (7.5/100,000) per year

### CURRENT STATUS: GREEN

Unit 1: 5.43E-05

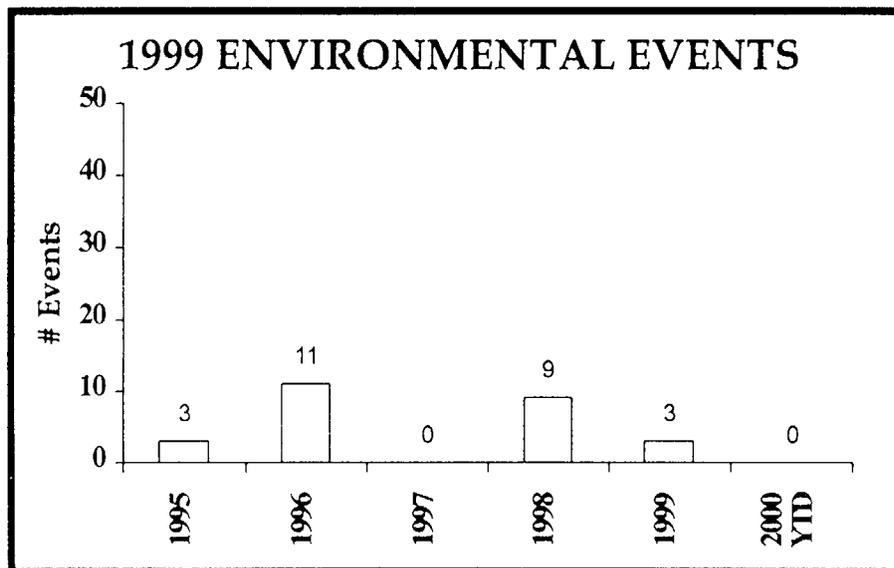
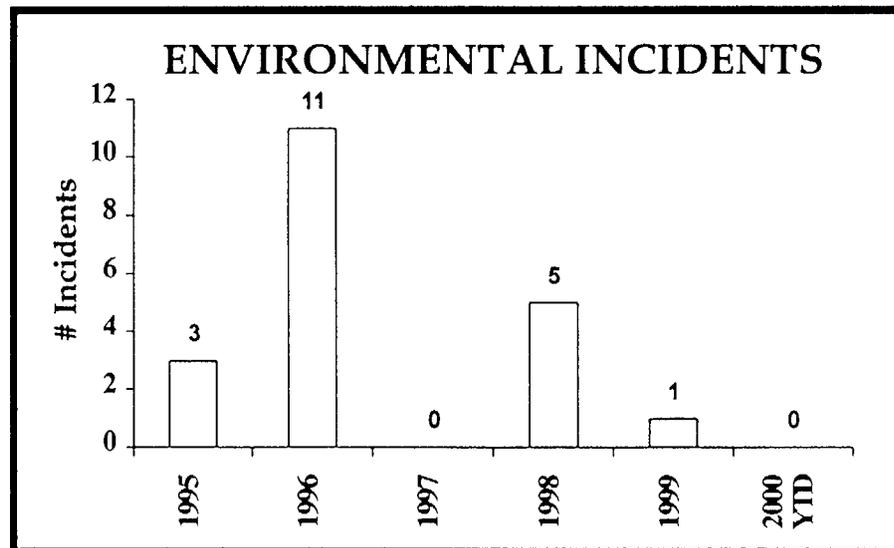
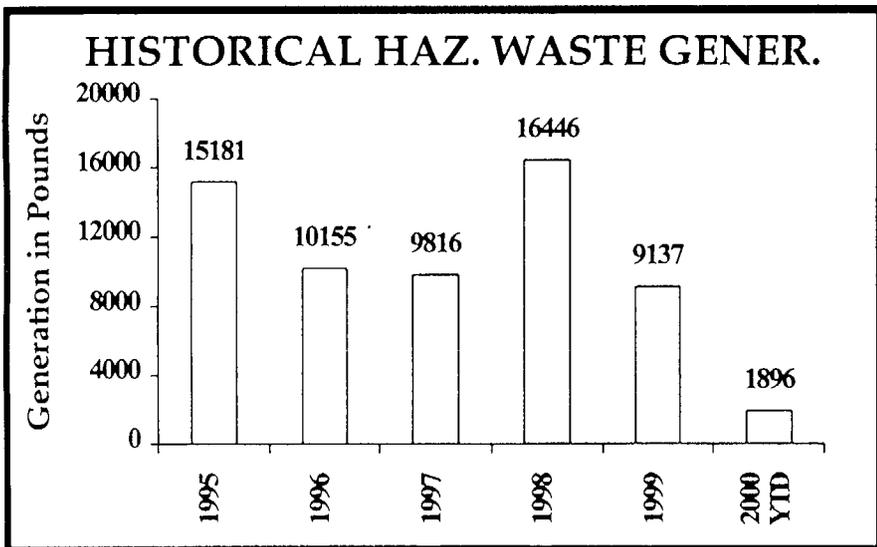
Unit 2: 5.49E-05

Unit 3: 5.76E-05

# Nuclear Safety ENVIRONMENTAL INDEX



(Green)



# Nuclear Safety ENVIRONMENTAL INDEX

**DEFINITION:**

Environmental Performance is evaluated based on seven success measures of minimized impact to the environment due to plant operations.

**1999 MEASURES SUCCESS CRITERIA:**

**GREEN:**            $\geq$  5 of 6 Measures on target

**YELLOW:**        $\geq$  4 of 6 Measures on target

**RED:**              $<$  4 of 6 measures on target

**CURRENT MONTH STATUS:**

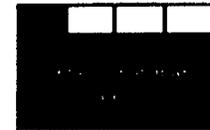
**GREEN:**         All Environmental Index sub-measures are on target YTD April.

OVERALL CRITERIA	GREEN	YELLOW	RED	ACTUAL
Sub-Measures On Target	$\geq$ 5	$\geq$ 4	$<$ 4	6 - Green

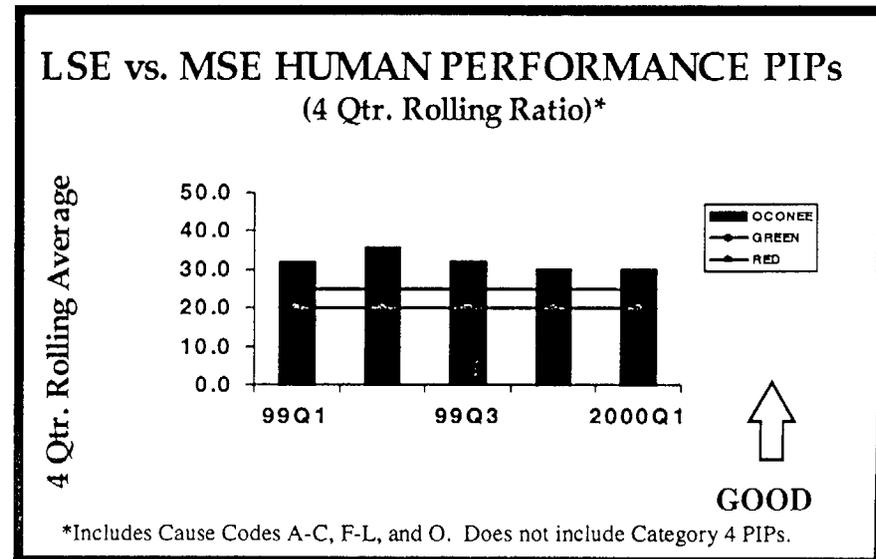
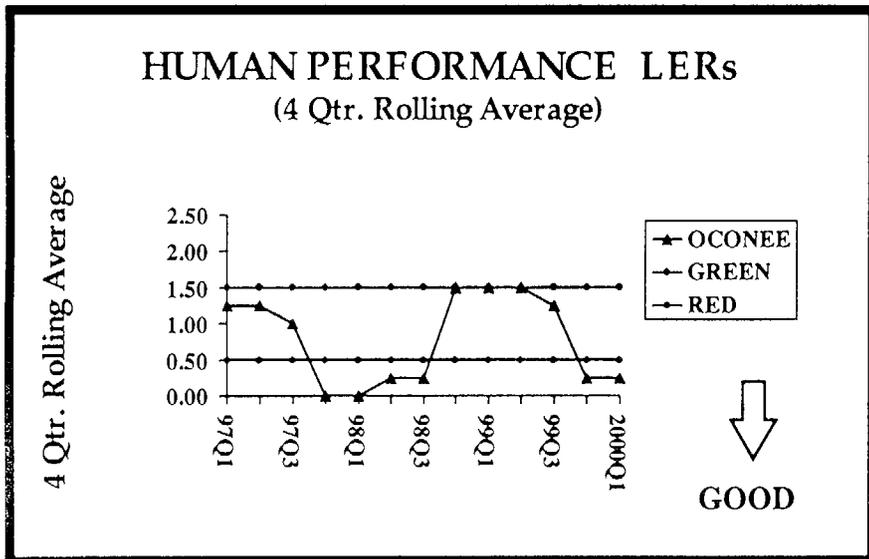
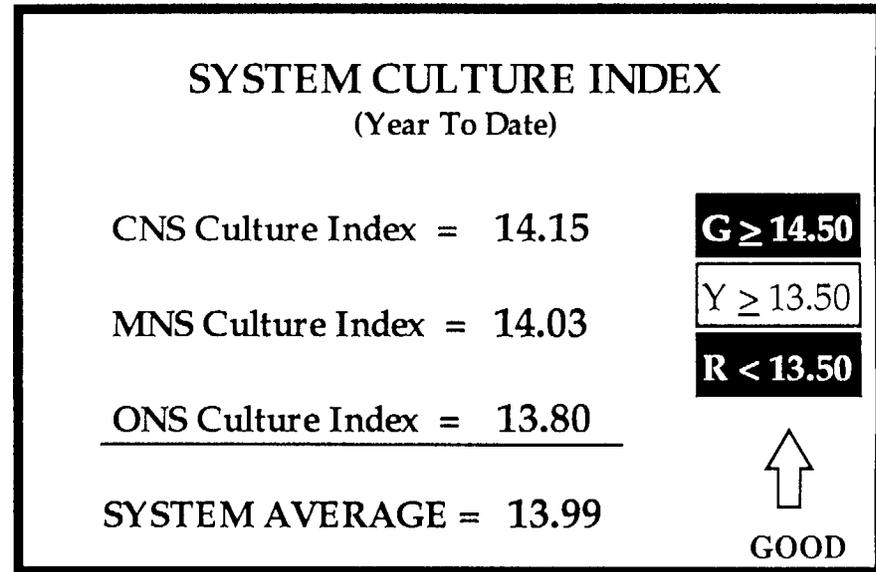
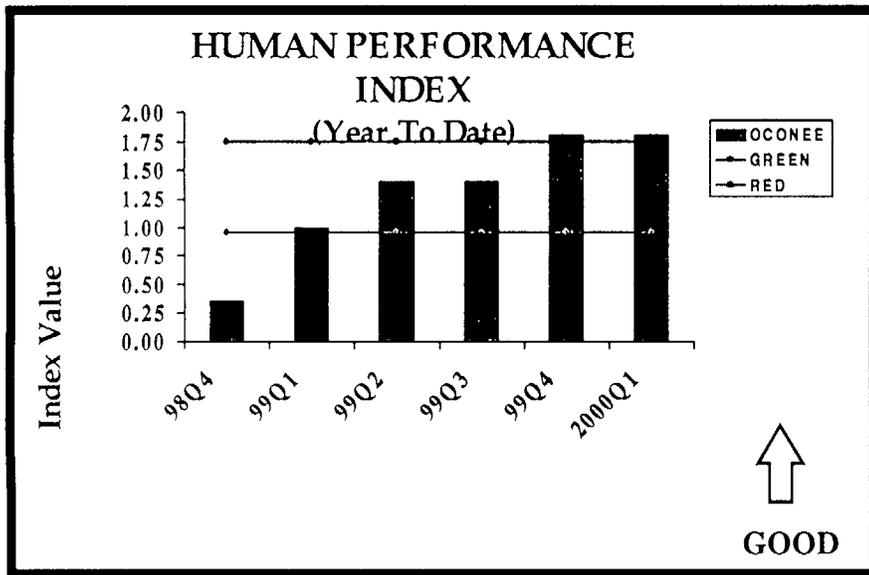
SUB-MEASURES	CRITERIA	ACTUAL	ON/OFF
Environmental Fines	0 Fines	0	ON
Hazardous Waste Generation	$<$ 12,617 lbs.	1,786 lbs	ON
Environmental Incidents	$\leq$ 1 per year	0	ON
Environmental Assessment Score	90-95 %	98.9	ON
Assessment Process Rating	Rating of 1 or 2	2	ON
Environmental Events	$<$ 10 per year	0	ON
YTD Near Misses	2000 Trending Only	49	N/A

# Nuclear Safety

## HUMAN PERFORMANCE INDEX



(GREEN)



# Nuclear Safety

## HUMAN PERFORMANCE INDEX

**DEFINITION:**

The Human Performance index is a weighted summation of point values for the following factors:

- Site Culture Index (conducted annually)
- No. of Human Performance LERs - 4 Qtr. rolling average
- Ratio of LSEs vs. MSEs Human Performance PIPs - 4 Qtr. rolling average

**2000 MEASURES SUCCESS CRITERIA:**

Overall Measure = ( Site Culture Index points x .20 ) + ( H.P. LER points x .40 ) + ( LSE/MSE PIP points x .40 )

SUB-MEASURES	SITE CULTURE INDEX (20% of total weight)  Goal: 14.5 by 12/31/99	HUMAN PERFORMANCE LERs (40% of total weight)  Goal: Top Quartile (0.25/unit per Qtr.)	LSE vs. MSE HP PIPs (40% of total weight)  Goal: 25 :1 ratio
2 points	≥ 14.5	≤ 0.50	≥ 25 :1
1 point	≥ 13.5	≤ 1.50	≥ 20 :1
0 points	< 13.5	> 1.50	< 20 :1

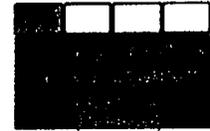
**CURRENT QUARTER STATUS:**

	Actual	Points	Weight	Index
Site Culture Index	13.80	1 point	x .20	= 0.20
H.P. LERs	.25	2 point	x .40	= 0.80
LSE vs. MSE PIP Ratio	30:1	2 point	x .40	= 0.80

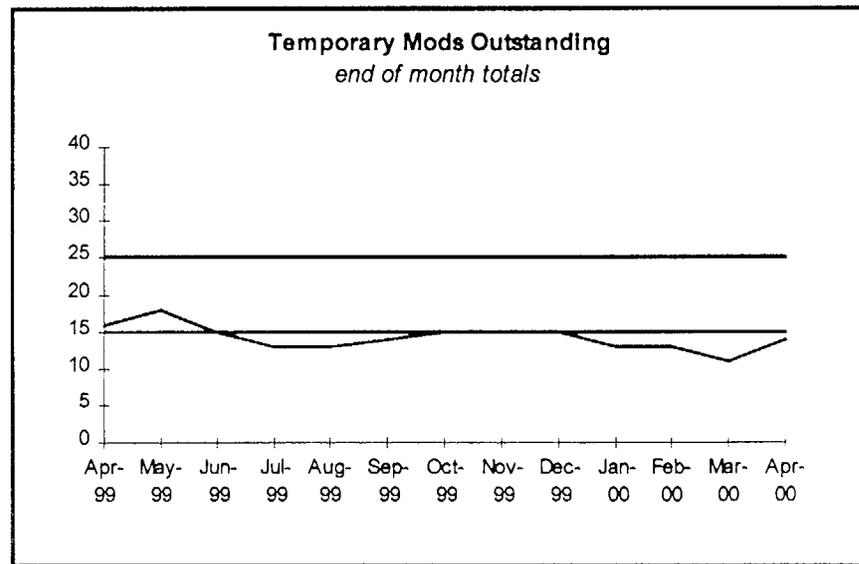
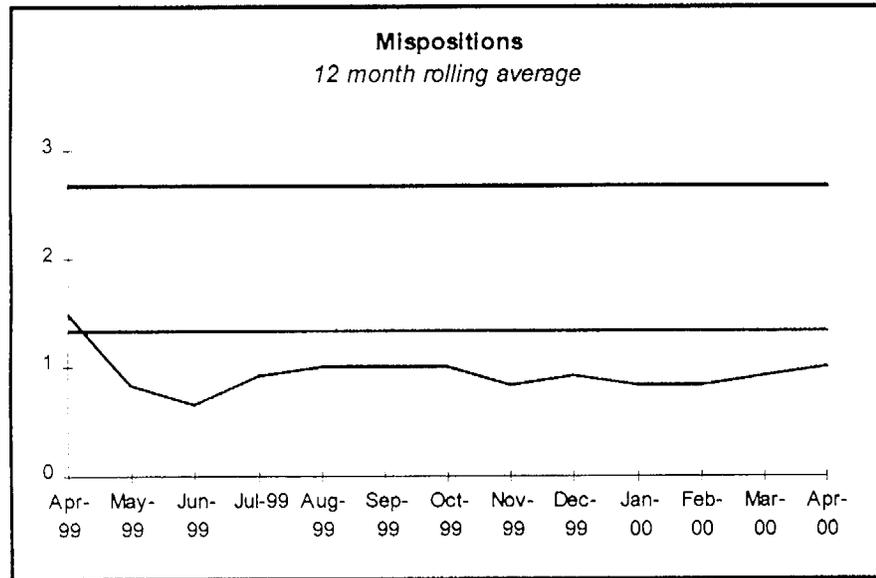
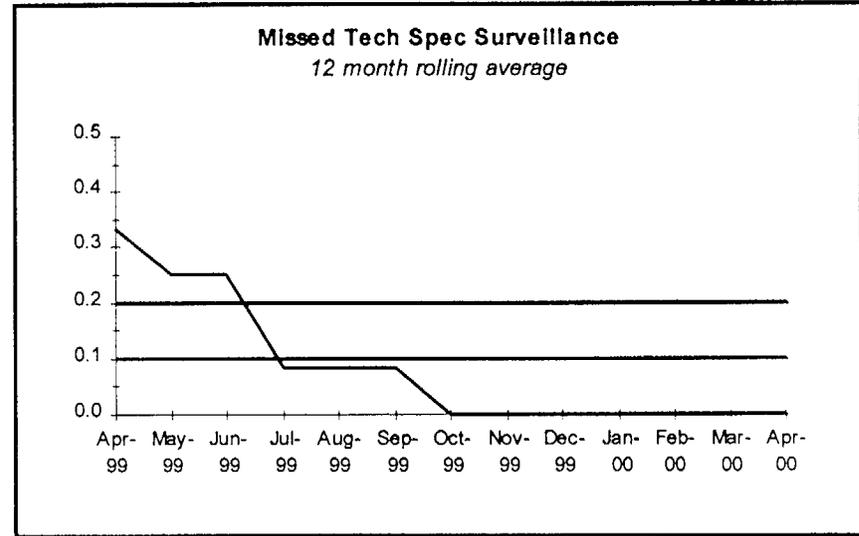
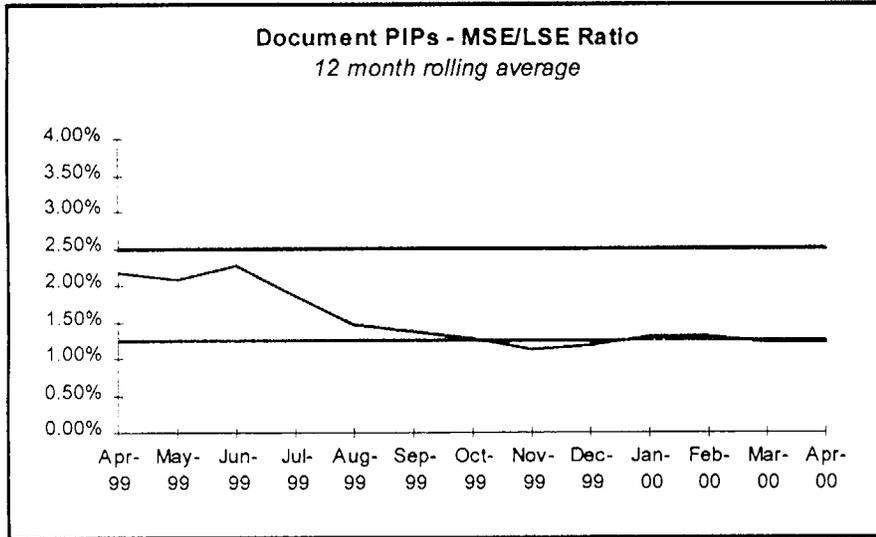
CURRENT INDEX = 1.80

Green:	≥ 1.75 pts.
Yellow:	≥ 0.95 pts.
Red:	< 0.95 pts.

# Nuclear Safety CONFIGURATION MGMT. HEALTH



(GREEN)



# Nuclear Safety

## CONFIGURATION MGMT. HEALTH

**DEFINITIONS:**

Configuration Management is evaluated based on four (4) sub-measures:

- Document Related PIPs - Ratio of MSEs to LSEs - Number of MSE PIPs divided by number of LSE PIPs with event codes D (Document Issues).
- Number of Missed Tech Spec Surveillances (PIPs) - PIPs with Event Code A4, A4a, A4b and A4c (not necessarily listed as Primary event code - MSE only)
- Number of Mispos - PIPs with Event Code J (excluding the near misses).
- Temporary Mods Outstanding - Number of Temporary Mods outstanding (snapshot at end of month).

**2000 MEASURES SUCCESS CRITERIA:**

- GREEN:        ≥ 6 sub-measure points  
 YELLOW:     3 - 5 sub-measure points  
 RED:         < 3 sub-measure points

**CURRENT MONTH STATUS:** GREEN

### Configuration Management Index

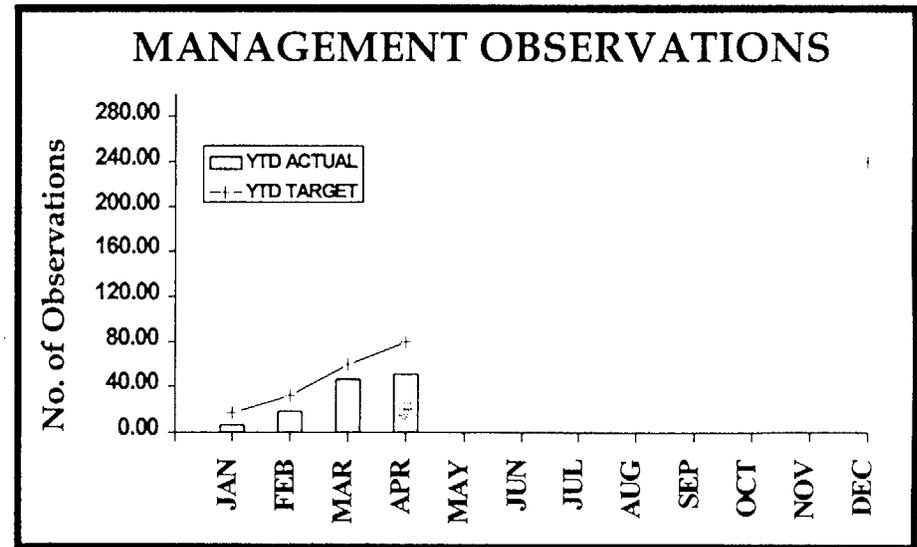
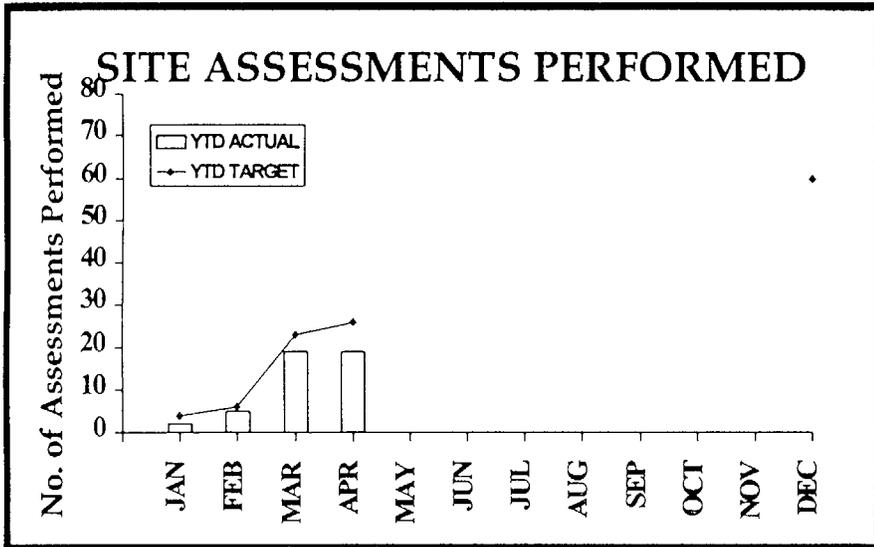
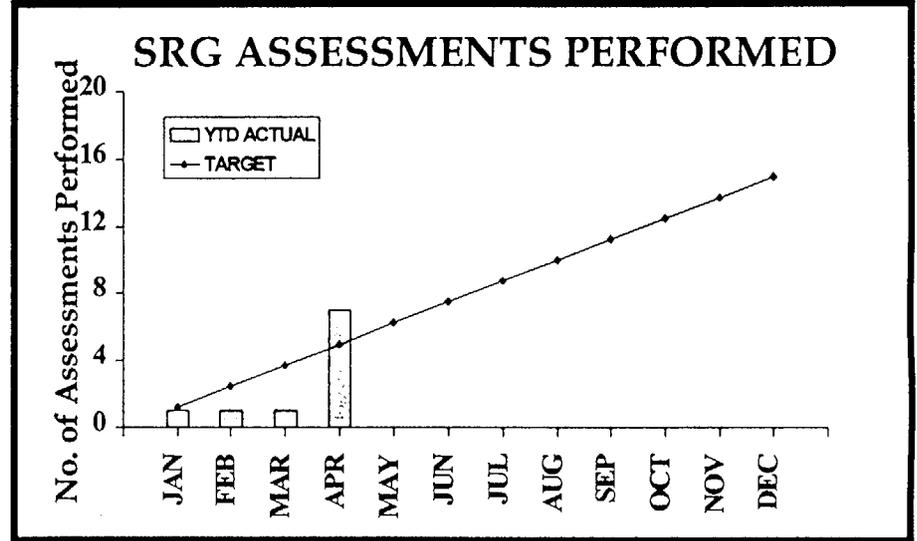
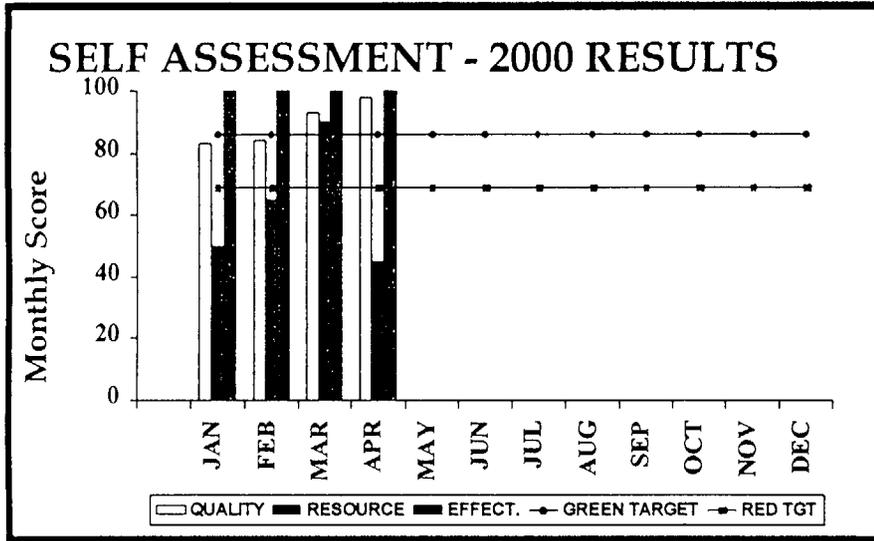
for period ending: April-00

CRITERIA	GREEN (2 points)	YELLOW (1 point)	RED (0 points)	To Date Actual	POINTS	Color
Document Related PIPs - MSE/LSE ratio	< 1.25 %	1.25% - 2.5%	> 2.5 %	1.22%	2	
Number of Missed Tech Spec Surveillances (PIPs)	< 0.1	0.1 - 0.2	> 0.2	0.0	2	
Number of Mispos	< 1.33 per month (cumulative)	1.33-2.67 per month (cumulative)	>2.67 per month (cumulative)	1.0	2	
Temporary Mods Outstanding	< 15	15-25	> 25	14	2	
<b>TOTAL</b>		<b>3 - 5</b>	<b>&lt; 3</b>		<b>8</b>	

CM INDEX

# Nuclear Safety SELF ASSESSMENT PROGRAM

SELF  
ASSESSMENT  
PROGRAM  
(Feater)  
(YELLOW)



# Nuclear Safety SELF ASSESSMENT PROGRAM

APRIL 2000

CRITERIA	POSSIBLE SCORE	MONTH ACTUAL	MONTH STATUS	YTD AVG.	ON/OFF TARGET
<b>QUALITY MEASURE:</b>					
-- Appropriate Assessment	20 points	20	Green	18	ON
-- Scope/ Assessment Plan	15 points	13	Green	12	OFF
-- Documentation/Results	40 points	40	Green	39	ON
-- Appropriate Findings/Corrective Actions	25 points	25	Green	22	ON
<b>Total QUALITY</b>	<b>100 points</b>	<b>98</b>	<b>GREEN</b>	<b>91</b>	<b>ON</b>
<b>RESOURCE MEASURE:</b>					
-- Level 1 and 2 Group Assessments	25 points	0	Red	18	OFF
-- MOP	25 points	0	Red	4	OFF
-- SRG Level 1 (2) Assessments	25 points	25	Green	24	ON
-- G.O. Level 2 (3) Assessments	15 points	0	Red	10	OFF
-- Site-Wide Benchmarking	10 points	10	Green	5	OFF
<b>Total RESOURCE</b>	<b>100 points</b>	<b>35</b>	<b>RED</b>	<b>61</b>	<b>OFF</b>
<b>EFFECTIVENESS MEASURE:</b>					
-- INPO Identified Significant Event (SER or SOER) for the Site	Threshold	0	Green	0	ON
-- Level 1 MSE PIPs Discovered During the Month	50 points	50	Green	50	ON
-- Acceptance of Assessment Corrective Actions Assigned 3 Months Ago	50 points	50	Green	50	ON
<b>Total EFFECTIVENESS</b>	<b>100 points</b>	<b>100</b>	<b>GREEN</b>	<b>100</b>	<b>ON</b>
<b>TOTAL SELF ASSESSMENT</b>	<b>300 points</b>	<b>233</b>	<b>YELLOW</b>	<b>250</b>	<b>OFF</b>

# Nuclear Safety

## SELF ASSESSMENT PROGRAM

### DEFINITION:

The Self Assessment Program measure is evaluated in three parts: (1) a Quality Measure -- how good are our assessments, are we looking at the right things, getting good results and identifying appropriate corrective actions, (2) a Resource Measure -- are we doing enough Assessments, Manager Observations, SRG, and NAID activities and benchmarking to identify and improve on our short comings, and (3) an Effectiveness Measure -- are we preventing events, are the corrective actions identified in assessments being accepted by the appropriate groups.

Quality Measure (100 possible points): NOTE: All Group Assessments and MOPs will be averaged to determine the monthly total.

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>-- Appropriate Assessment</li> <li>-- Well-defined Plan, Purpose, Scope, Compliance with NSD 607</li> <li>-- Documentation and Results</li> <li>-- Appropriate Findings, Areas of Improvement and/or Corrective Actions</li> </ul> | <ul style="list-style-type: none"> <li>- Meets NSD 607 guidance = 20 points; Does not meet NSD 607 guidance = 0 points, OEP driven = 5 bonus points..</li> <li>- Detailed Plan, Concise Purpose &amp; Scope, and followed NSD 607 = 15 points; Marginal Plan, Purpose, &amp; Scope, and Followed NSD 607 = 10 points; No Plan, Vague Purpose and Scope, and Partial Compliance With NSD 607 = 5 points; No Plan, Purpose, and Scope, and No Compliance With NSD 607 = 0 points.</li> <li>- Clear and Concise Document With All Objectives Met = 40 points; Vague and Confusing Document With Some Objectives Met = 20 points; Poorly Written Document With No Objectives Met = 0 points.</li> <li>- All Identified Items Are Appropriate With Supporting Information Provided = 25 points; Most Identified Items Are Appropriate With Some Supporting Information Provided = 10; Few Identified Items Are Appropriate With No Supporting Information Provided = 0 points.</li> </ul> |
|---|--|

### Resource Measure (100 possible points):

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>-- Level 1 and 2 Group Assessments</li> <li>-- MOP:</li> <li>-- SRG Level 1 (2):</li> <li>-- GO Level 2 (3):</li> <li>-- Site Wide Benchmarking:</li> </ul> | <ul style="list-style-type: none"> <li>≥ 90 % Completed vs. Scheduled = 25 points; ≥ 80 % Completed vs. Scheduled = 20 points; ≥ 70 % Completed vs. Scheduled = 15 points. 25 points maximum.</li> <li>≥ 90 % Completed vs. Scheduled = 25 points; ≥ 80 % Completed vs. Scheduled = 20 points; ≥ 70 % Completed vs. Scheduled = 15 points. 25 points maximum.</li> <li>≥ 90 % Completed vs. Scheduled = 10 (15) points; ≥ 80 % Completed vs. Scheduled = 7 (10) points; ≥ 70 % Completed vs. Scheduled = 5 (7) points. (Add results of Level 1 and 2 assessments for total score). 25 points maximum.</li> <li>≥ 90 % Completed vs. Scheduled = 5 (10) points; ≥ 80 % Completed vs. Scheduled = 3 (7) points; ≥ 70 % Completed vs. Scheduled = 1 (5) points. (Add results of Level 2 and 3 assessments for total score). 15 points maximum.</li> <li>Site maintains an average of ≥ 2 documented benchmarking efforts per month = 10 points; average of ≥ 1 documented benchmarking effort per month = 5 points. 10 points maximum.</li> </ul> |
|--|--|

### Effectiveness Measure (100 possible points):

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>-- INPO identified Significant Event (SER or SOER):</li> <li>-- Level 1 MSE PIPs Discovered During the Month:</li> <li>-- Acceptance of Assessment Corrective Actions Assigned 3 Months Ago:</li> </ul> | <ul style="list-style-type: none"> <li>1 = ZERO for measure</li> <li>≤ 1/month = 50 points; ≤ 2/month = 30 points; ≤ 3/month = 20 points; ≤ 4/month = 10 points; &gt; 4/month = 0.</li> <li>≥ 90% CA accepted = 50 points; ≥ 80% = 30 points; ≥ 70% = 20 points; &lt; 70% = 0 points.</li> </ul> |
|--|--|

### 2000 MEASURES SUCCESS CRITERIA:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>GREEN:</li> <li>YELLOW:</li> <li>RED:</li> </ul> | <ul style="list-style-type: none"> <li>&gt; 255 total points (86% of total) with no sub-measures RED</li> <li>&gt; 210 total points (70% of total) with no more than one sub measure RED</li> <li>&lt; 210 total points</li> </ul> |
|---|--|

### CURRENT MONTH STATUS: YELLOW

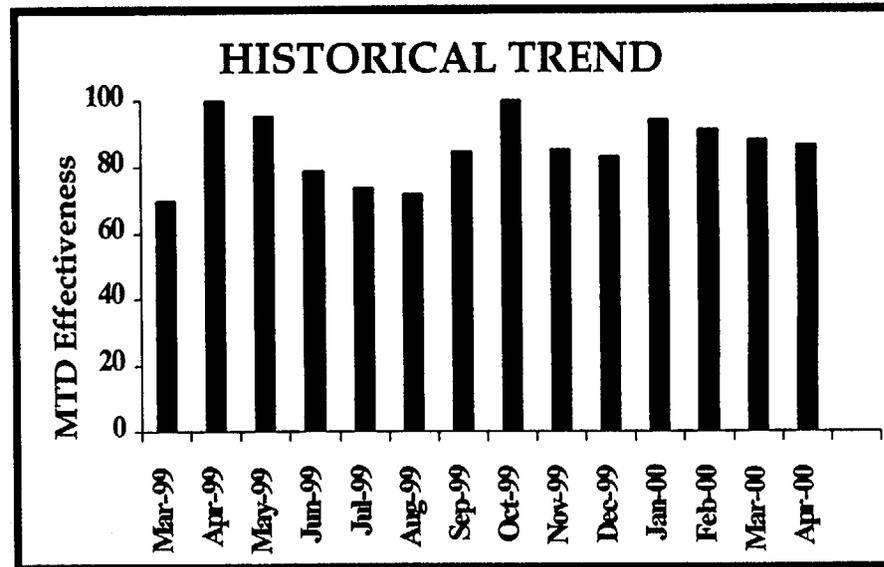
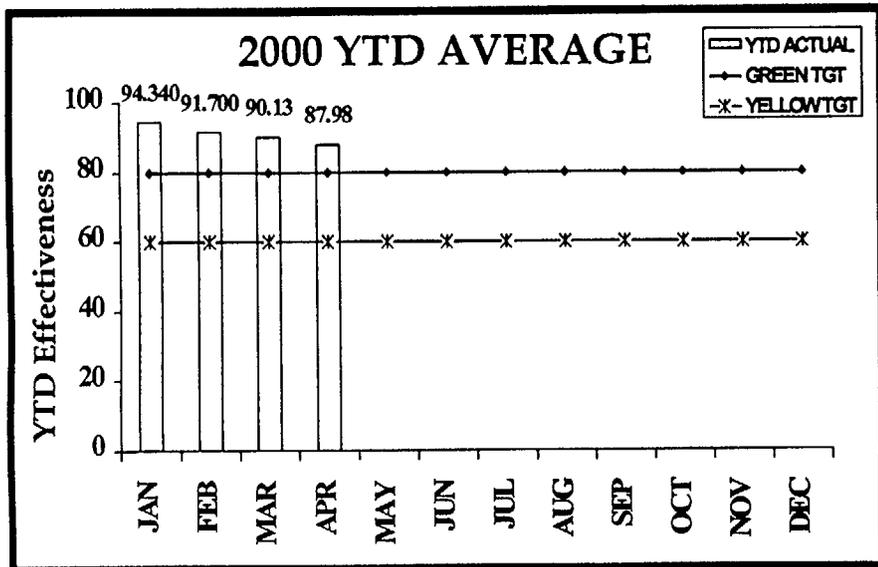
• For April, the Self Assessment measure stands at **233** of a possible 300 points. This represents a 51 point decrease from March. The Quality and Effectiveness sub-measures were GREEN, while the Resource sub-measure was RED. The reason for the RED is that a sufficient number of assessments are not being completed as scheduled..

• Through April, the Year To Date Points Average for this measurement is **250**, which is OFF Target for meeting the year end goal.

# Nuclear Safety CORRECTIVE ACTION PROGRAM



(GREEN)



# Nuclear Safety

## CORRECTIVE ACTION PROGRAM

**DEFINITION:**

Corrective Action Program Health is evaluated based on how well PIPs are addressed at the site. Each PIP is evaluated based on three broad categories weighted as follows: Problem Evaluation Effectiveness (40%), Corrective Action Effectiveness (40%) and Trending Effectiveness (20%). The Problem Evaluation and Corrective Action categories are evaluated as to Quality and Timeliness while the Trending category is evaluated solely on Timeliness.

The overall score of the Corrective Action Program measure is based on the YTD average results for all PIPs included in the measure with 80% of possible points required to meet expectations. This overall score can be further reduced by multipliers for Repeat Events (0.8) and Similar Events (0.9). These multipliers are applied cumulatively.

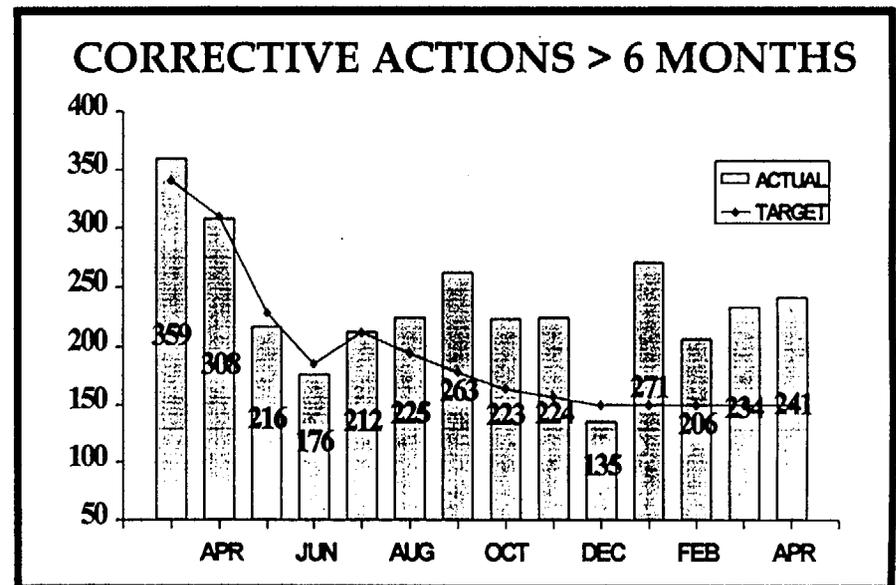
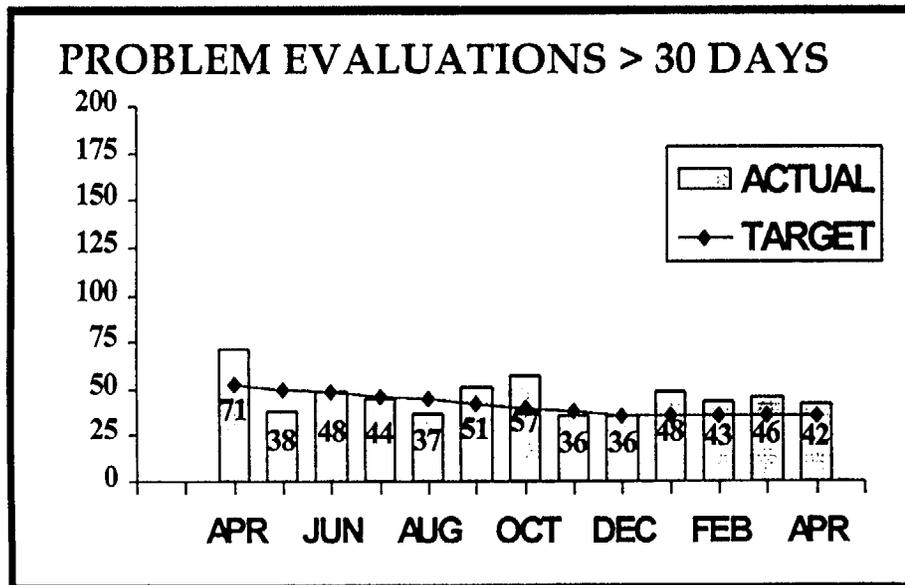
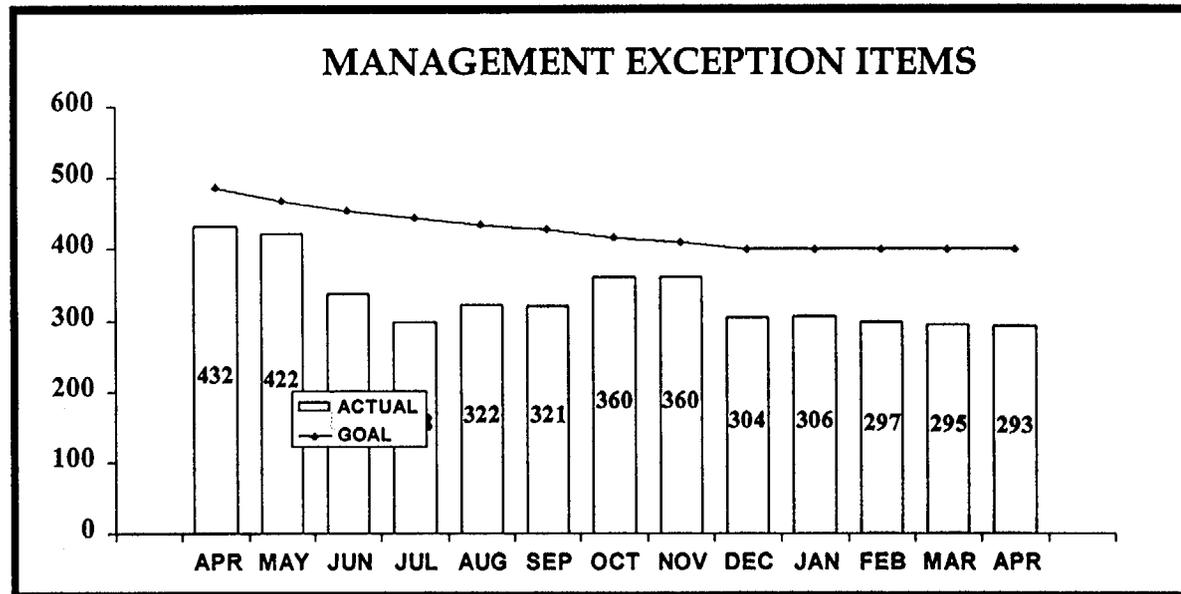
**2000 MEASURES SUCCESS CRITERIA:**

**GREEN:**            ≥ 80% YTD Average Evaluation Score  
**YELLOW:**        ≥ 60% YTD Average Evaluation Score  
**RED:**             < 59% YTD Average Evaluation Score

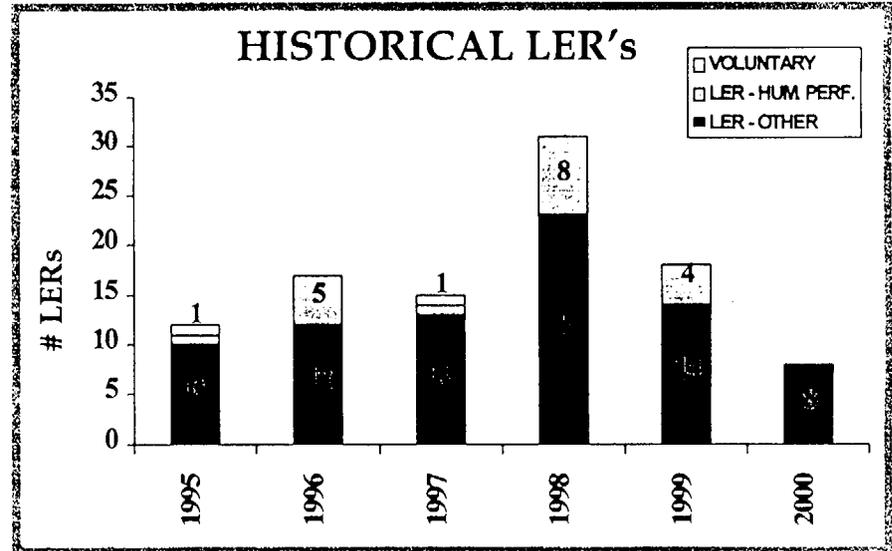
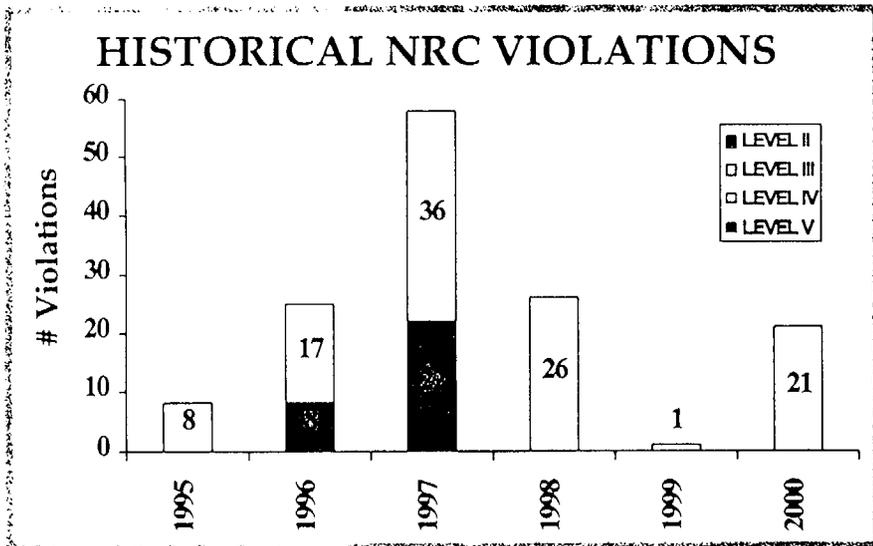
**CURRENT MONTH STATUS: GREEN**

SUB-MEASURES	POSSIBLE SCORE	YTD AVG. SCORE
<b>PROBLEM EVALUATION (40%):</b>		
Quality - Root Cause	10	9.5
Quality - Apparent Cause	10	10
Timeliness - Root Cause	10	10
Timeliness - Apparent Cause	10	4
<b>CORRECTIVE ACTION (40%):</b>		
Quality of Corrective Actions	20	100
Timeliness of Corrective Actions	20	6.5
<b>TRENDING (20%):</b>		
Work Group Trending	10	10
Safety Review Group Trending	10	10
<b>INITIAL CORRECTIVE ACTION SCORE</b>	100	86.5
- Repeat/Similar Event Multiplier		-1
<b>FINAL CORRECTIVE ACTION SCORE</b>		85.5

# Nuclear Safety CORRECTIVE ACTION PROGRAM (PIP TRENDS)



# Nuclear Safety REGULATORY HEALTH



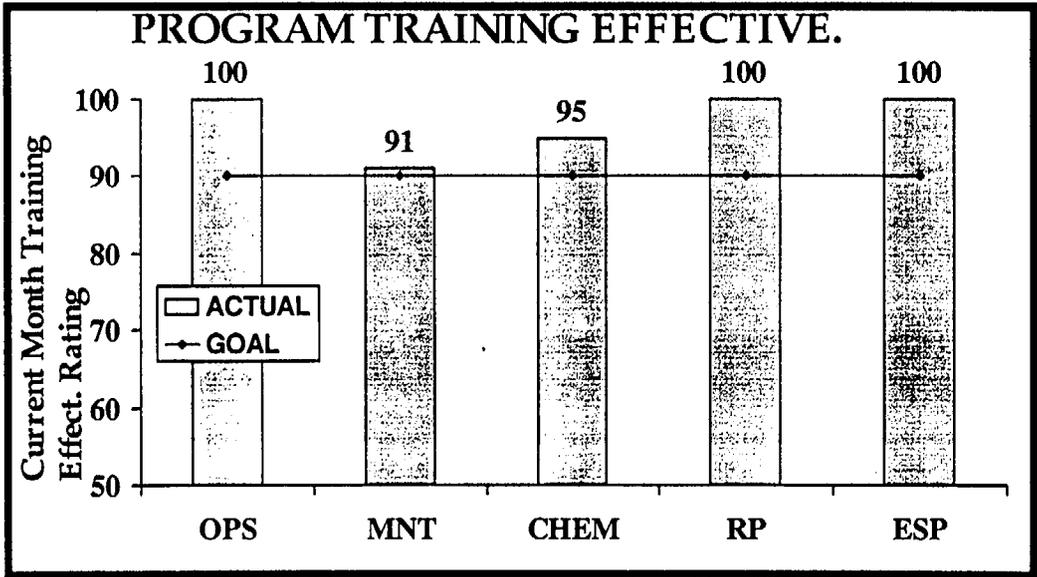
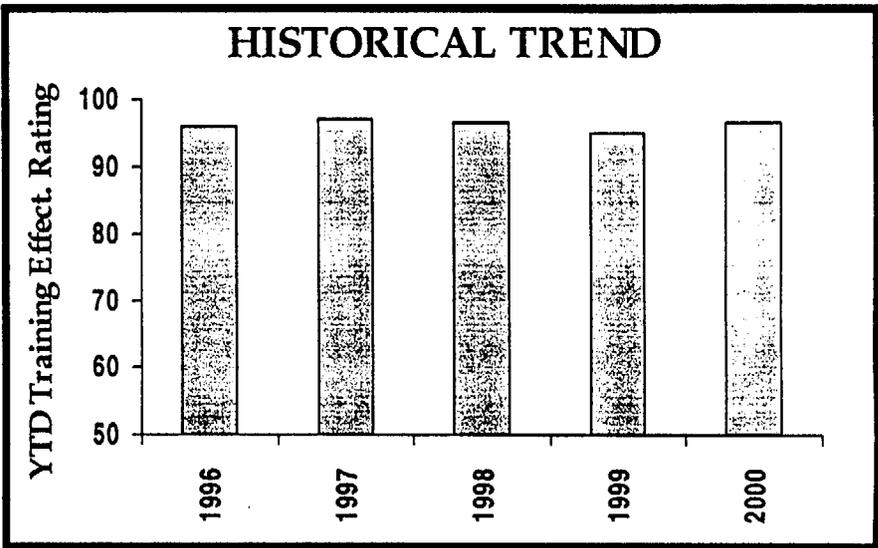
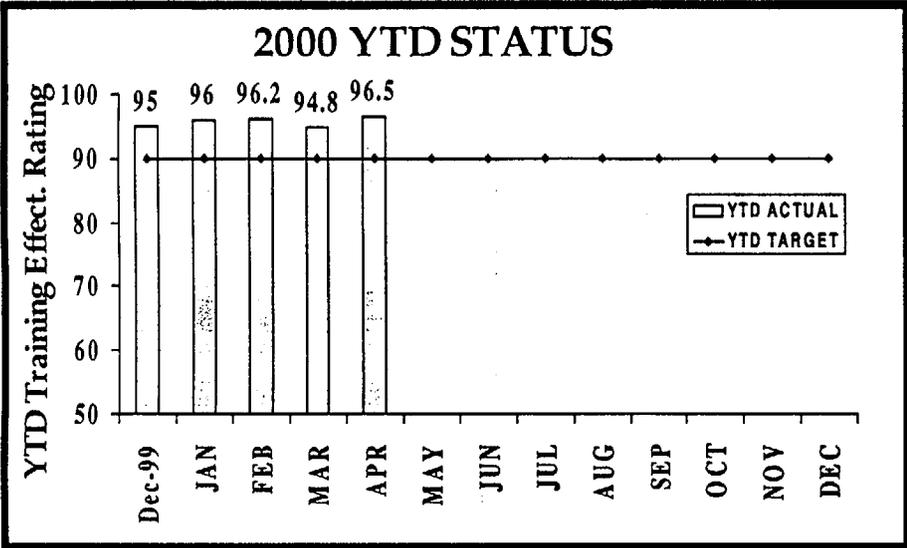
### 2000 OCONEE NRC VIOLATIONS

Mon.	Level	Description of Violation
* ONS has 21 Level IV non cited violations through April		

### 2000 OCONEE LER'S

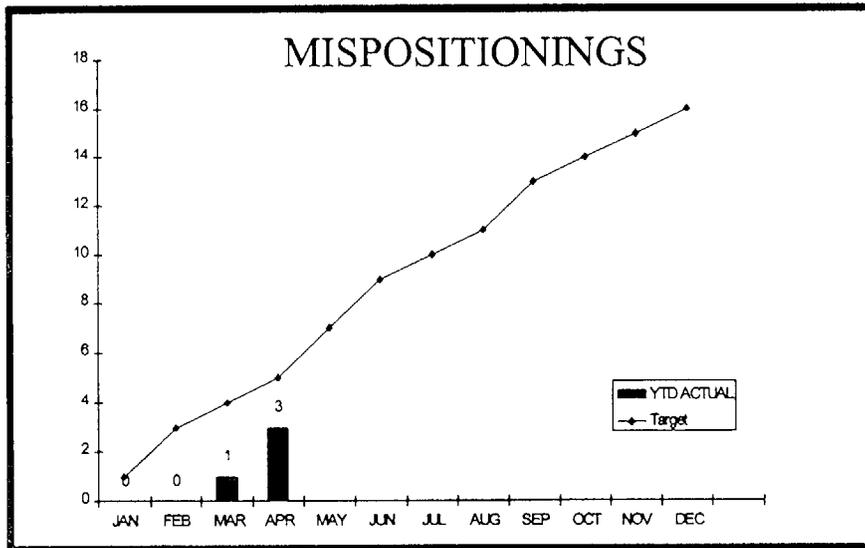
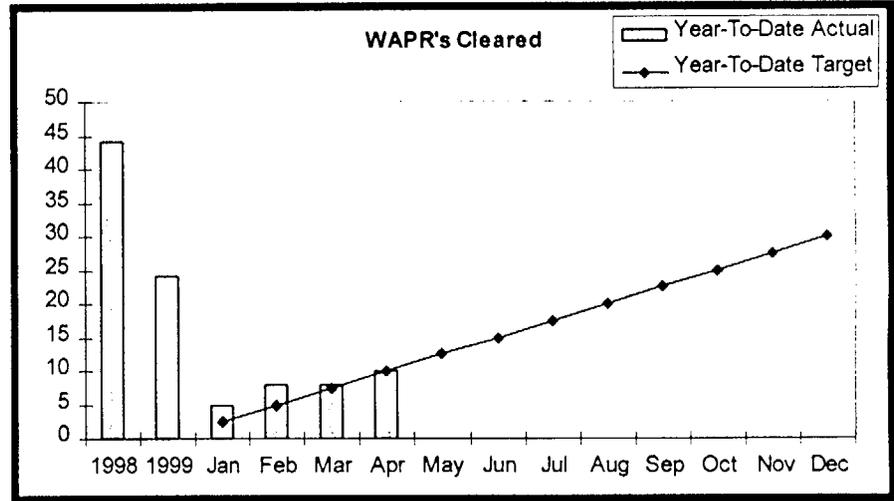
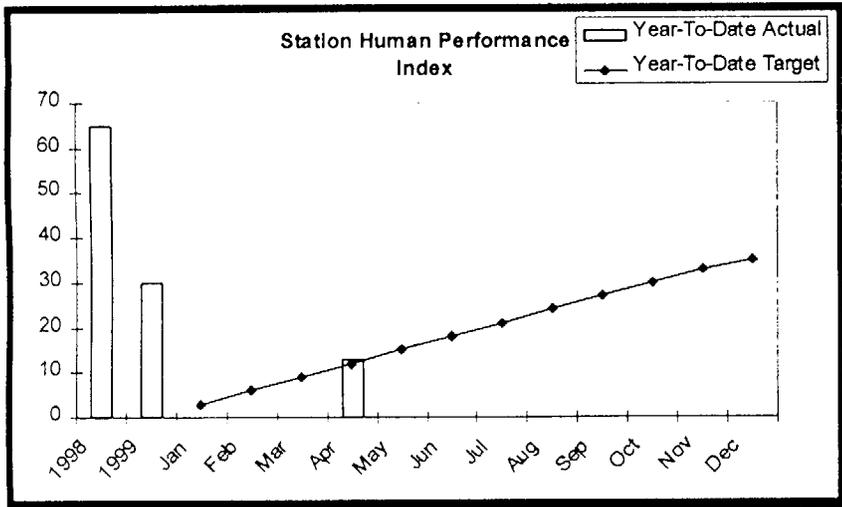
Date	Description of LER
1/13/00	3 RBCU Inoperable > 7 days
1/20/00	Unit Trip, control valves closed due to intermittent short circuit
2/2/00	Unit 3 reactor trip due to inadequate installation of temperature controller tubing
2/2/00	2RC-67 as found setpoint pressure outside +/- 1% of code
2/16/00	RCP Oil leak and missed reportability
2/23/00	Missed surveillance of 3LP 92 & 93
3/17/00	RCS pressure boundary leak on 1B2 cold leg drain line due to thermal fatigue in drain pipe
3/9/00	Tech Spec 3.0.3 entry for loss of both chillers

# Nuclear Safety TRAINING TRENDS



# Nuclear Safety

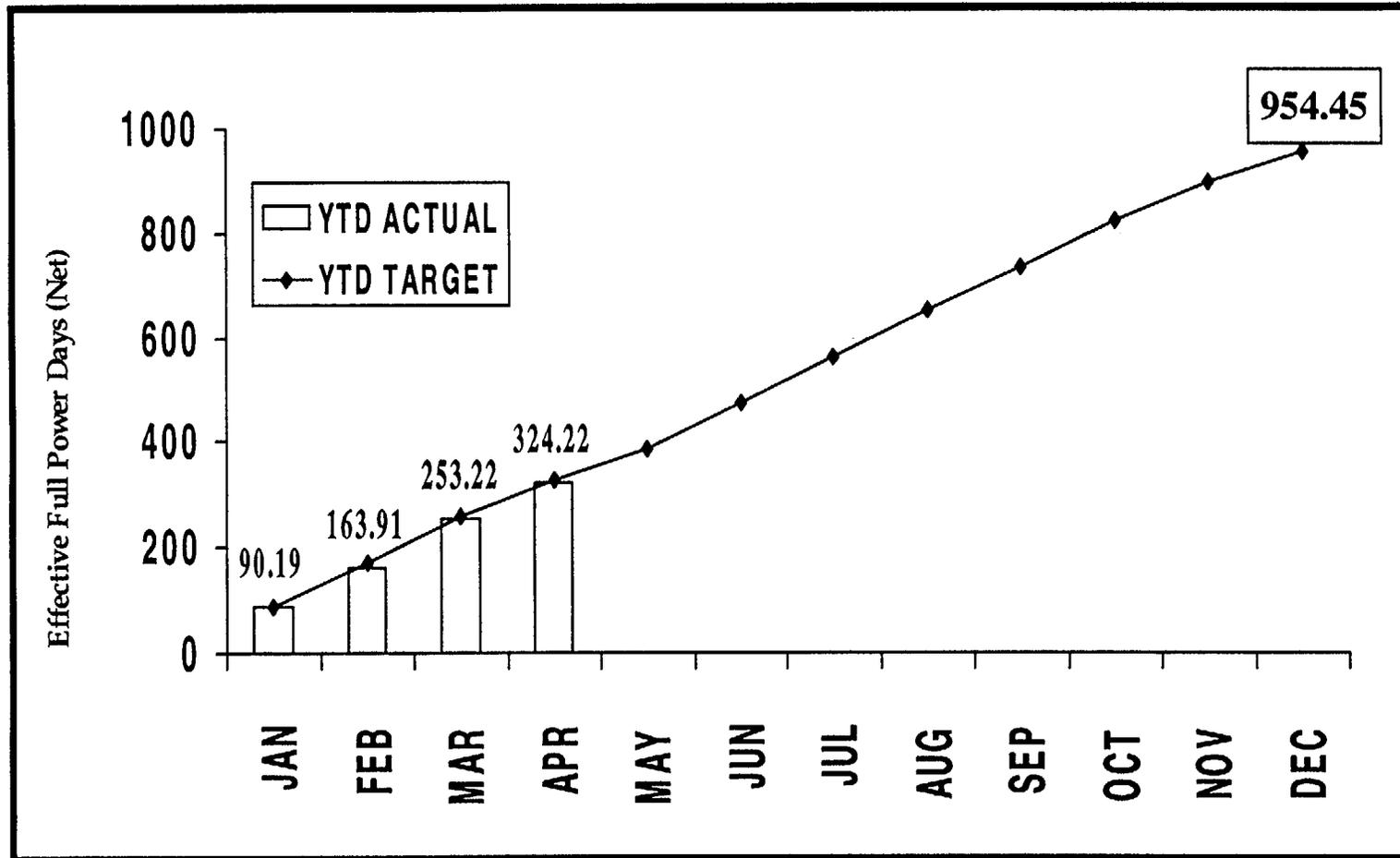
## HUMAN PERFORMANCE TRENDS



# Production EFFECTIVE FULL POWER DAYS

EFFECTIVE FULL-POWER DAYS (Forbes)		
\$		(YELLOW)

## 2000 YTD RESULTS



## Production

# EFFECTIVE FULL POWER DAYS

### DEFINITION:

Effective full-power days for Oconee based on actual fuel core burn. The 2000 target is based on 40 scheduled outage days for both Unit 1 and Unit 3 and a refueling-to-refueling capacity factor of 95.0% for these two units plus 95% capacity factor for Unit 2. Our 2000 target of 954.45 allows for 55.5 forced outage days.

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** YTD Actual and Year-end projection  $\geq$  Target performance  
**YELLOW:** YTD Actual and Year-end projection  $\geq$  Minimum performance  
**RED:** YTD Actual and Year-end projection  $<$  Minimum performance

CURRENT MONTH STATUS: GREEN. For April, ONS EFPDs totaled 71.01 exceeding our target of 68.04. Capacity factor for April was 80.74% exceeding the target of 77.51. Generation for the month was 1,468,471 MWHs exceeding the target of 1,414,401 MWHs.

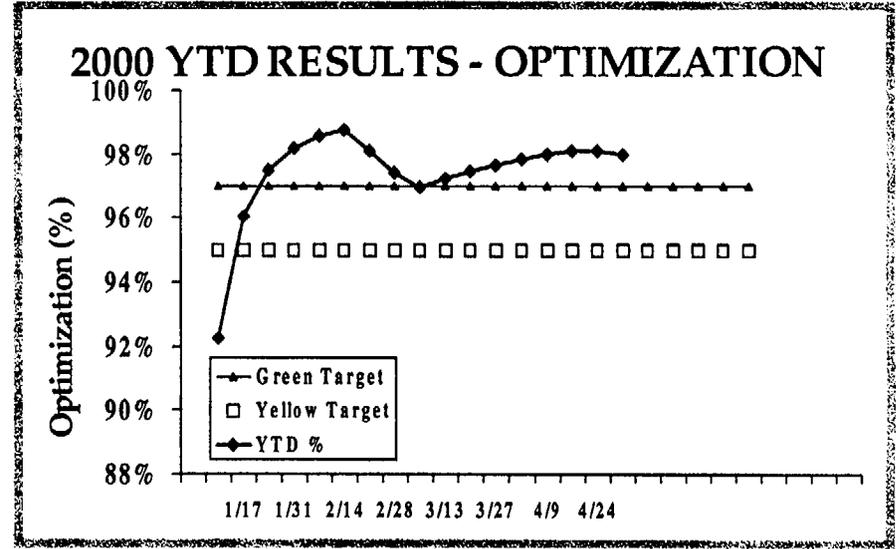
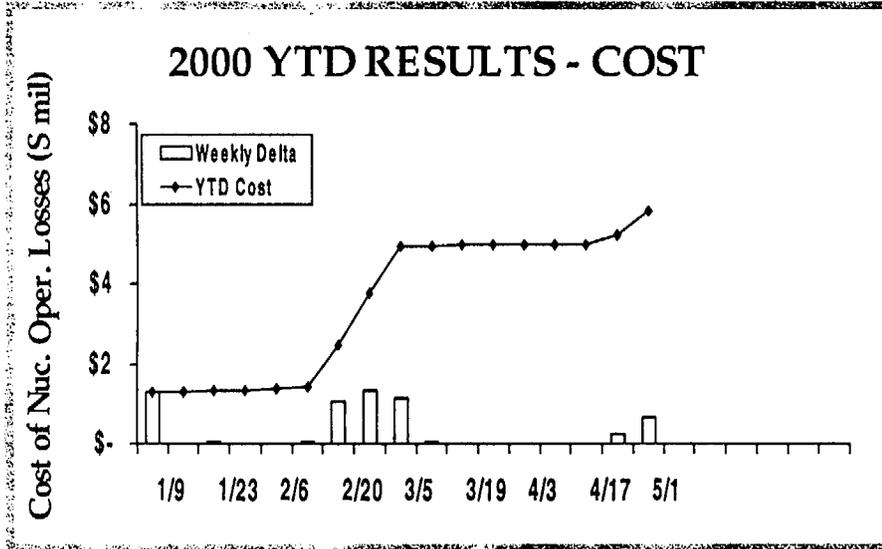
YTD STATUS: YELLOW. YTD through April, EFPDs totaled 324.22 compared to the target of 326.03. Capacity Factor YTD is 91.36 compared to the target of 92.16%. YTD Generation totaled 6,731,300 mwhs compared to the target of 6,790,321. This is due to the Unit 1 17 day forced outage.

# Production

## NUCLEAR GENER. MARKET MEASURE



(GREEN)



# Production

## NUCLEAR GENER. MARKET MEASURE

### DEFINITION:

The Nuclear Generation Market Measure (NGMM) is a measure of our Nuclear System's operational impact on total Duke System operating costs. The measure is presented in both Lost Dollar Impact as well as in Optimum to Actual %. Using the Post Analysis Costing Evaluator (PACE) costing tool, an optimum system operating cost is calculated on a weekly basis. This optimum case is based on forecasted system load (includes Native Load plus Sales), planned outages (both nuclear and fossil) and fixed and variable production costs for each fossil and nuclear unit. The fossil system generation is presumed to be held constant. Against this "optimal" cost line, the actual system operating cost is compared and the delta between the two costs is the essence of this measure -- stated in terms of either actual "lost" dollars or optimum to actual percentage.

Nuclear can best impact this measure through good operating performance. Forced outages or power reductions will result in the measured cost being higher as baseline nuclear units (with high fixed but low variable costs) are replaced by fossil units with much higher marginal costs. In deriving the optimal cost line the following items are "excused":

- 1) Refueling outages as scheduled in the monthly Maintenance Outage Co-ordination meeting,
  - 2) Core coastdowns as scheduled in the monthly Maintenance Outage Co-ordination meeting,
  - 3) Reductions and outages for Generation Management as scheduled in the monthly Maintenance Outage Co-ordination meeting or as called for by the SOC,
- and 4) SOC requested dispatch reductions.

The following times are specifically NOT "excused" from this measure:

- 1) Refueling outages that occur early due to a "forced outage" on the unit (the outage itself will be excused after the "scheduled" date),
- 2) Scheduled Refueling Outage days that extend past the scheduled date listed in the Maintenance Outage Co-ordination meeting (i.e. outage overruns -- these will not be excused even if reported in a subsequent Maintenance Outage Co-ordination meeting),
- 3) All other forced and scheduled outages and reductions.

The Target for 2000 is set at achieving 97% of optimum performance. The threshold for meeting Minimum expectations is 95% of optimum.

### 2000 MEASURES SUCCESS CRITERIA:

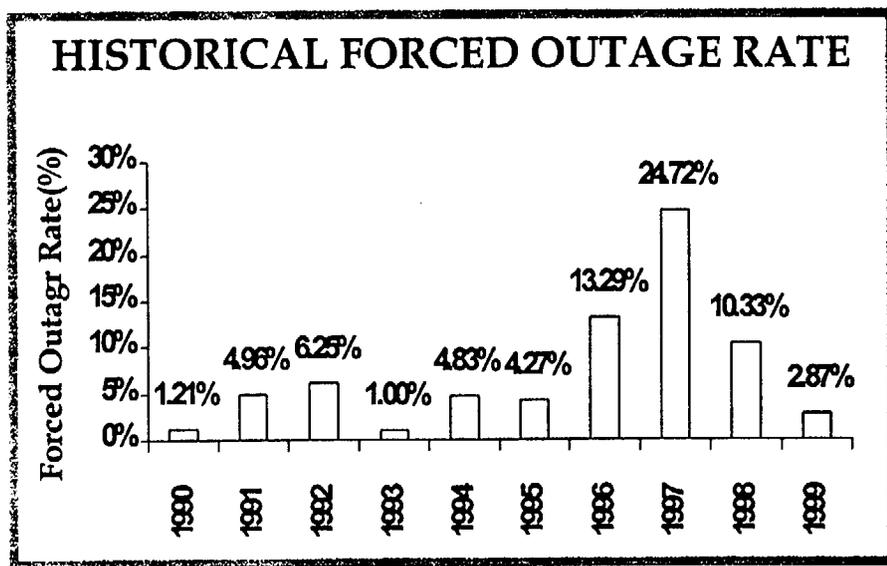
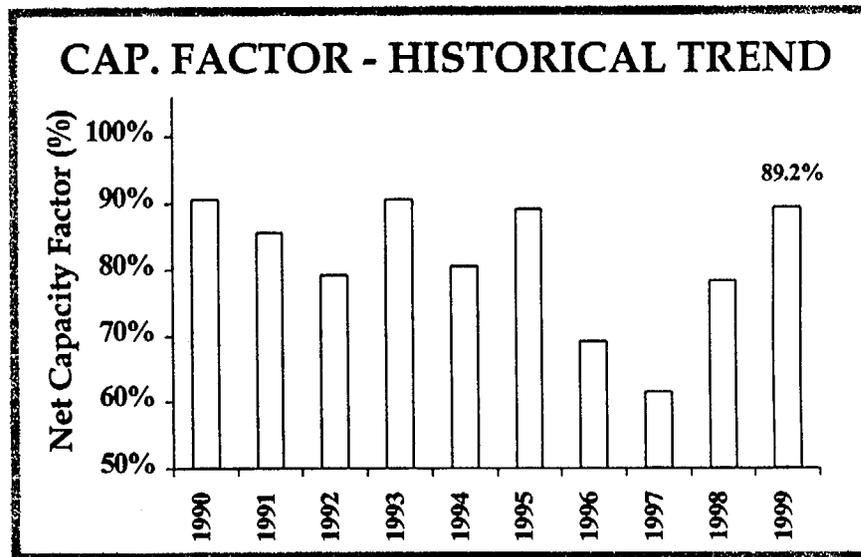
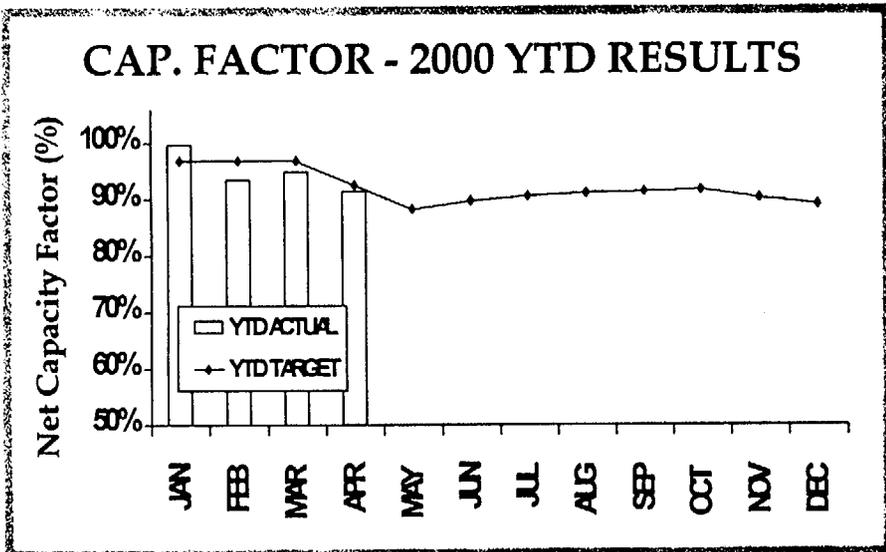
GREEN: YTD Optimum cost /YTD Actual cost  $\geq$  97%  
YELLOW: YTD Optimum cost /YTD Actual cost  $\geq$  95%  
RED: YTD Optimum cost /YTD Actual cost  $<$  95%

### CURRENT MONTH STATUS: GREEN

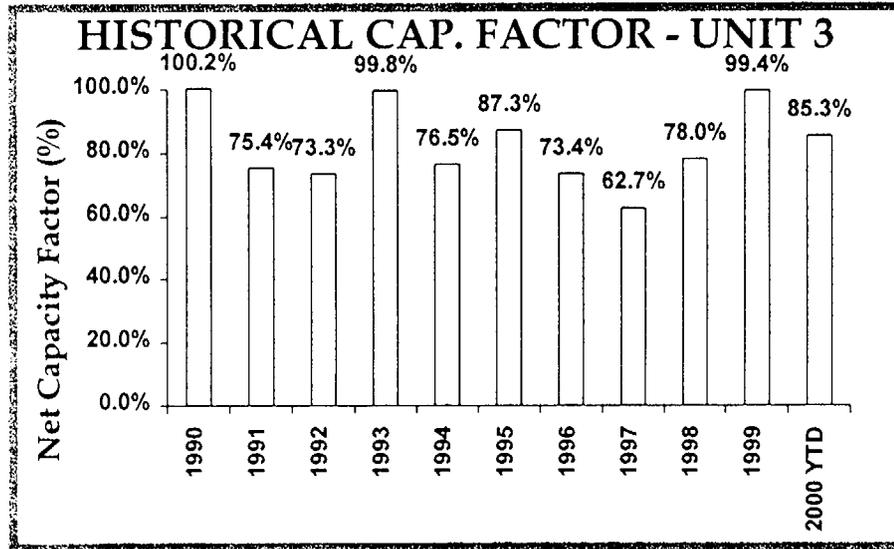
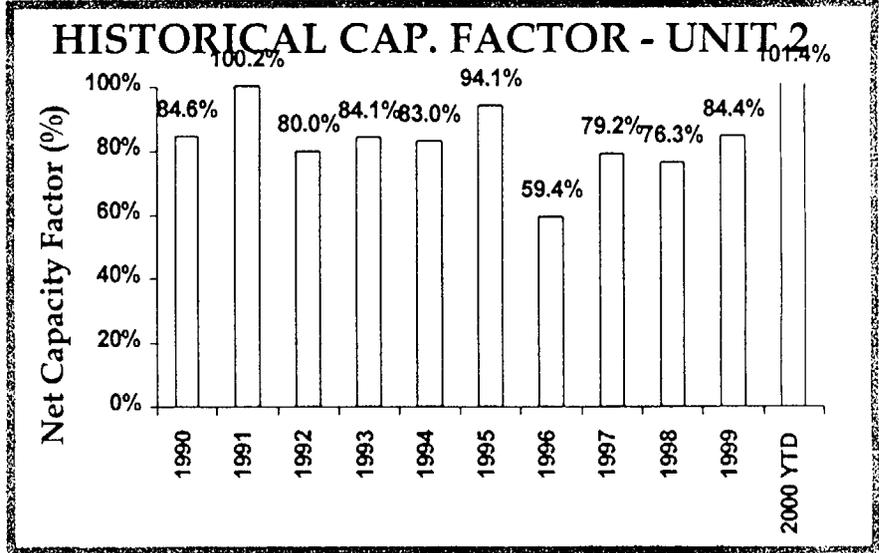
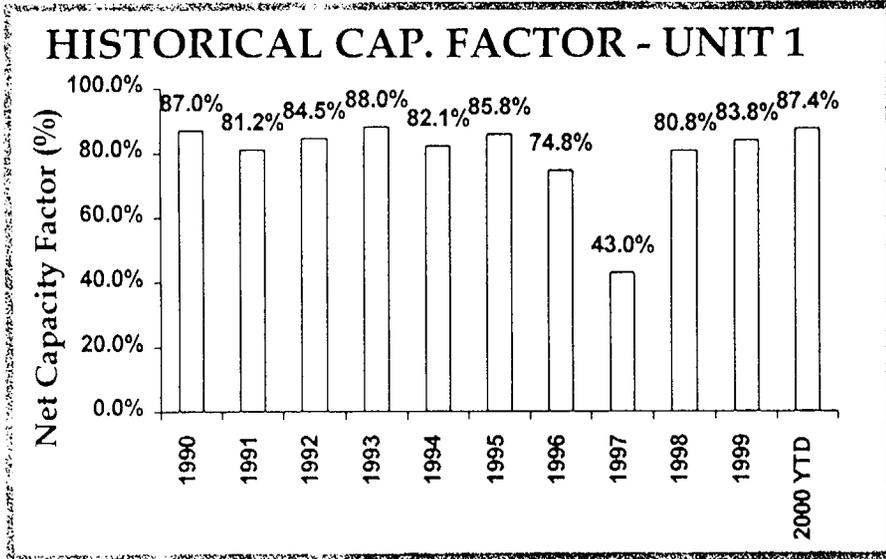
Y-T-D is 98.0%

Y-T-D cost is \$5,836,861

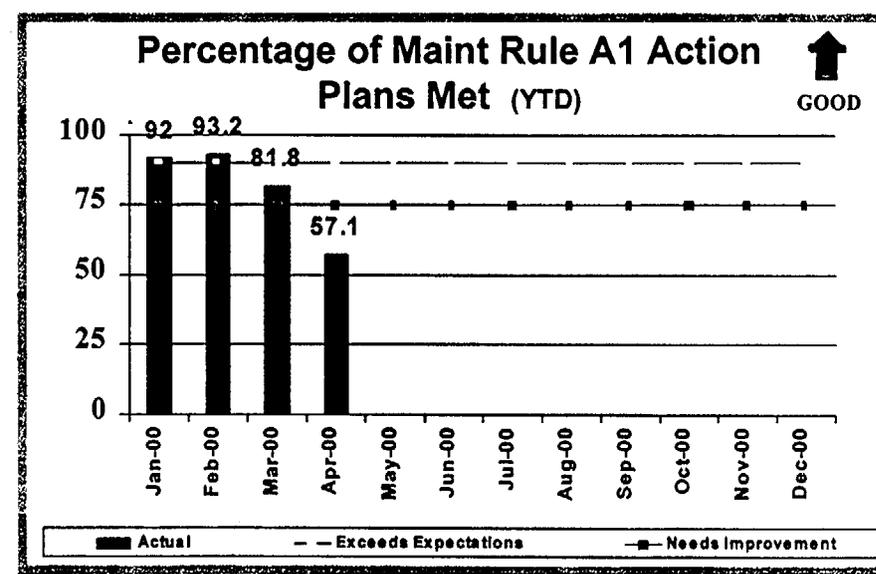
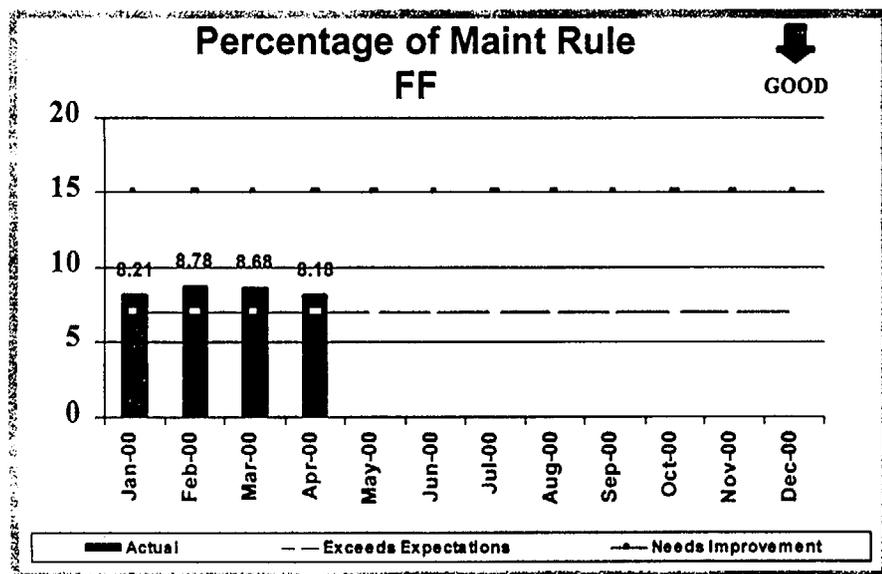
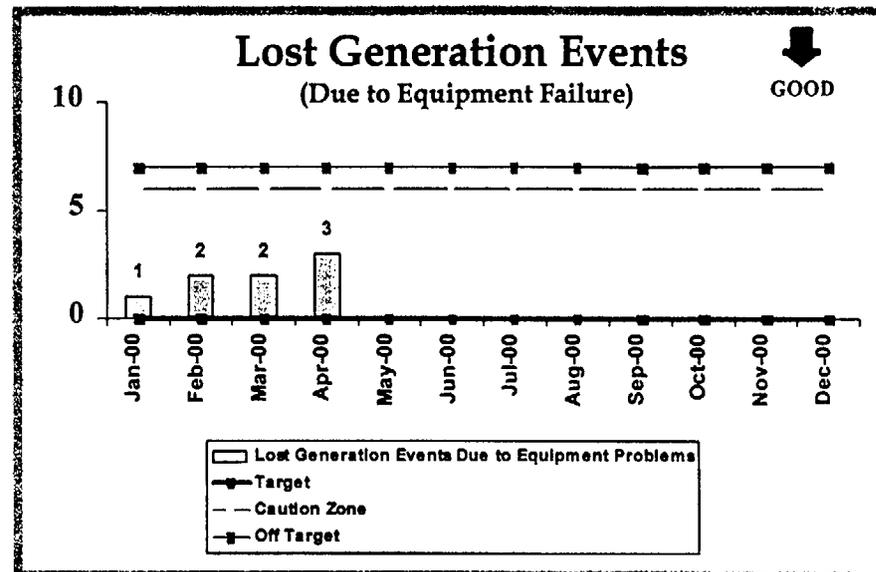
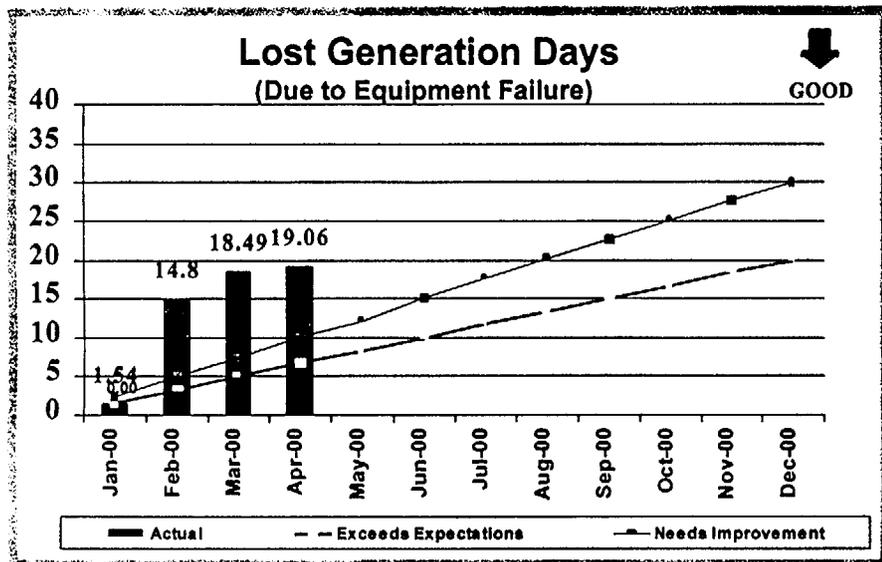
# Production PRODUCTION HISTORY



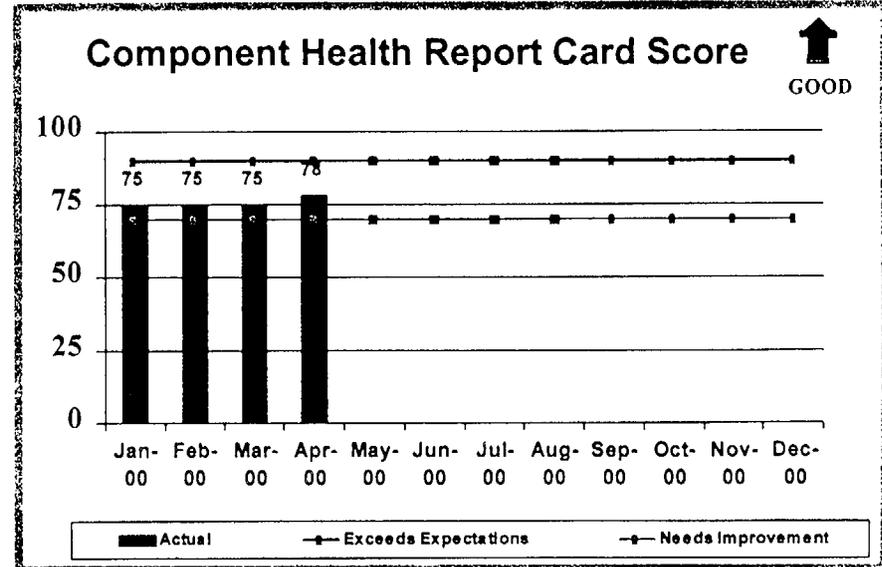
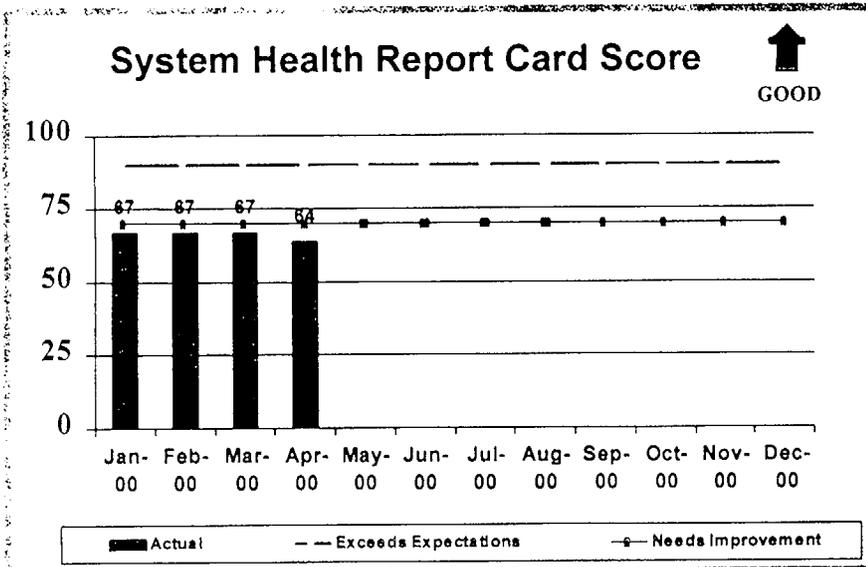
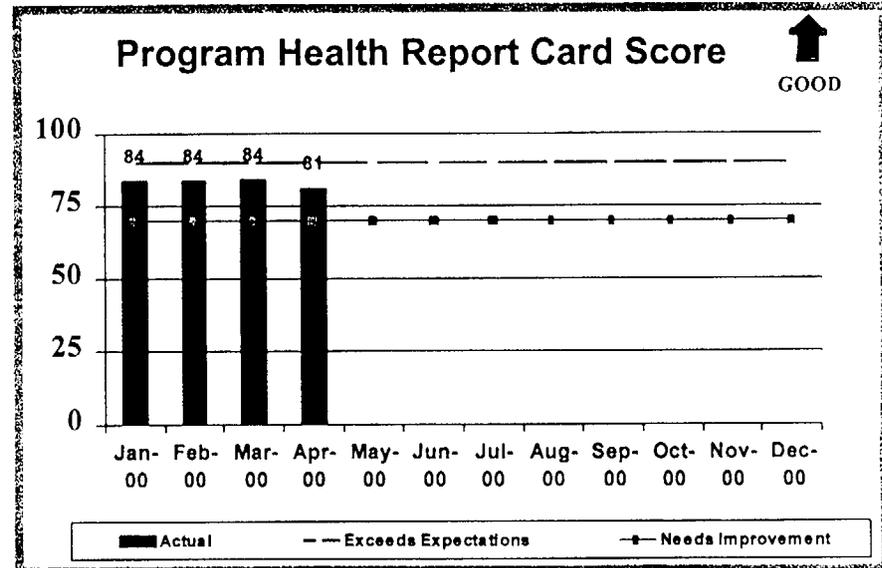
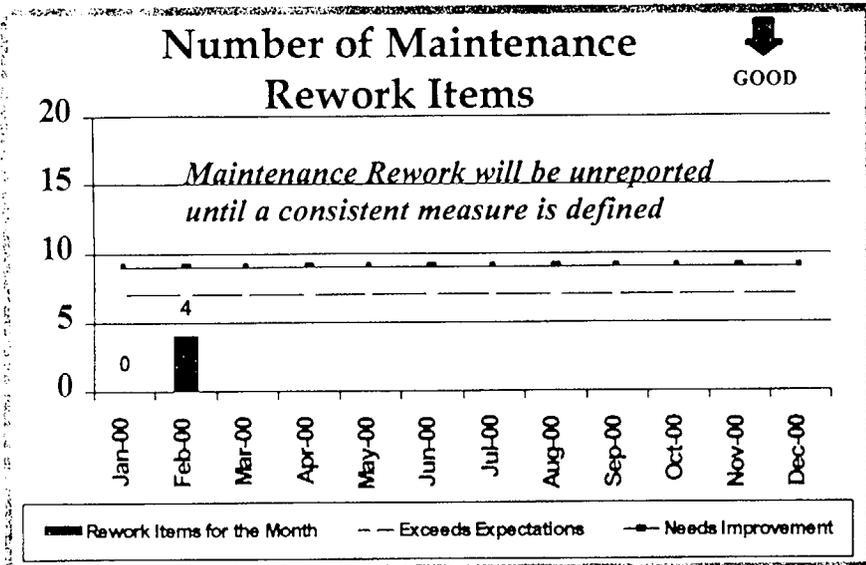
# Production PRODUCTION HISTORY



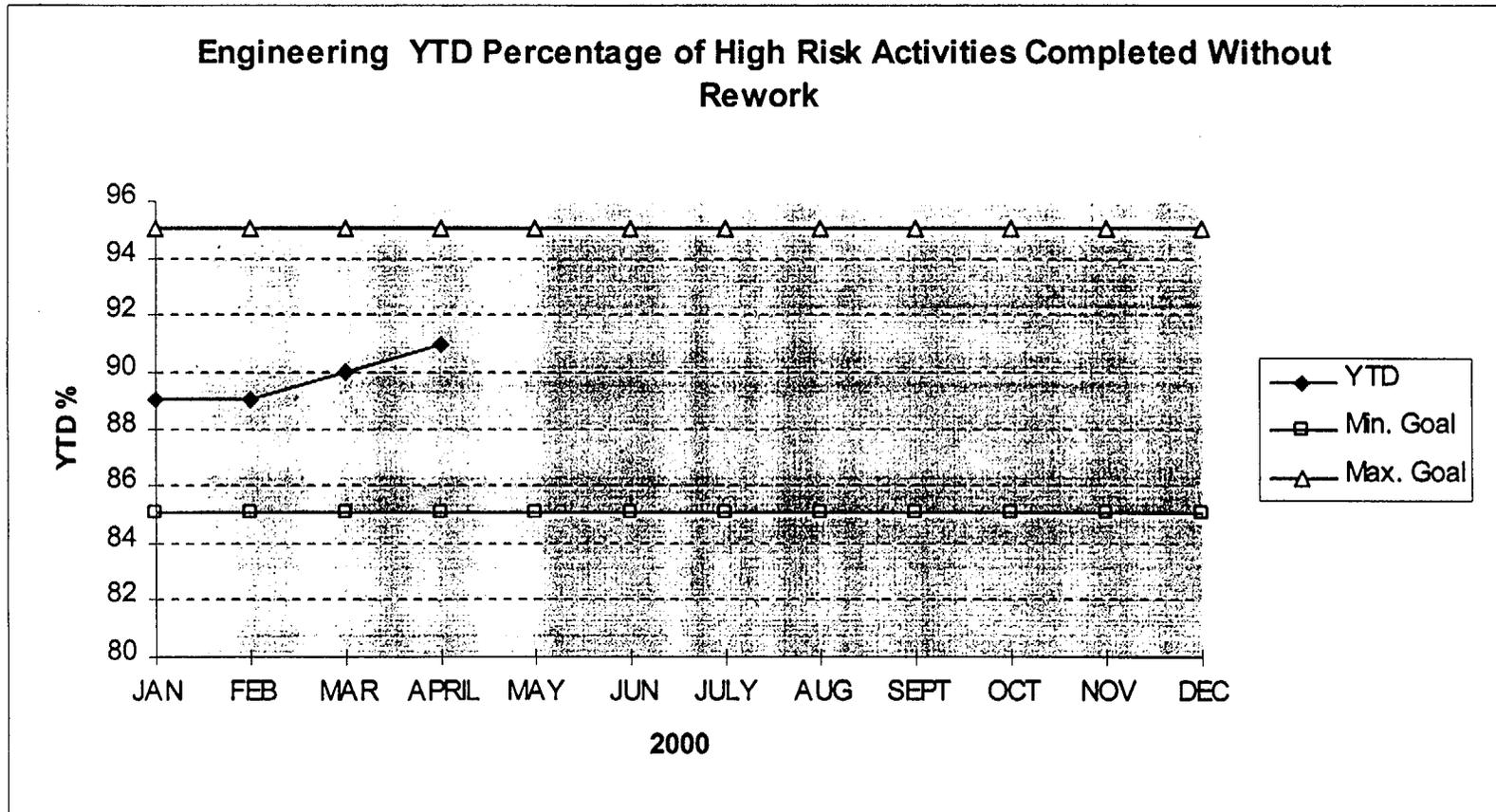
# Production EQUIPMENT RELIABILITY



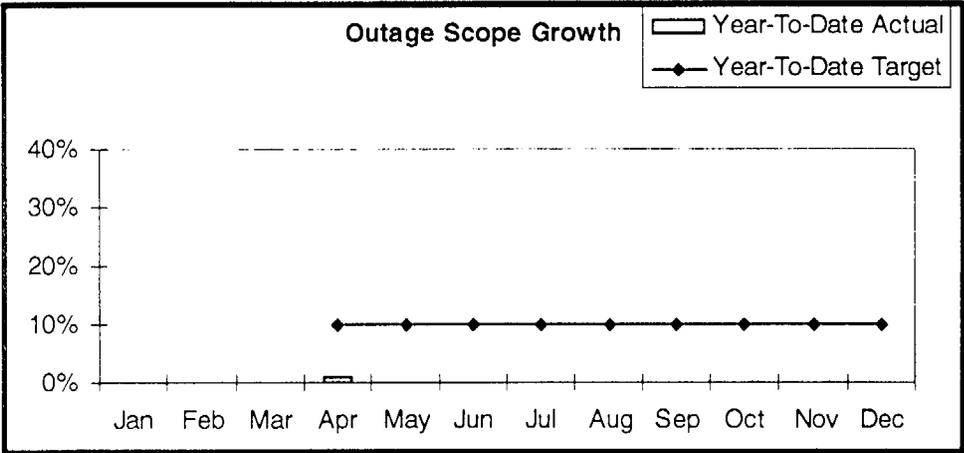
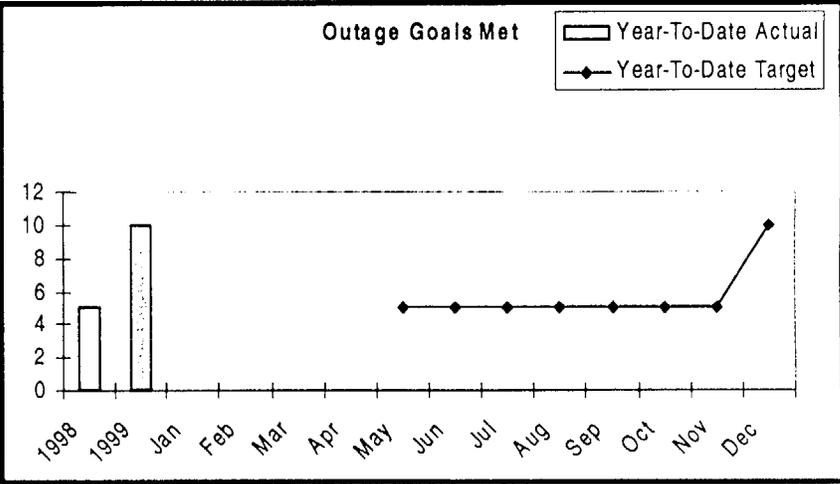
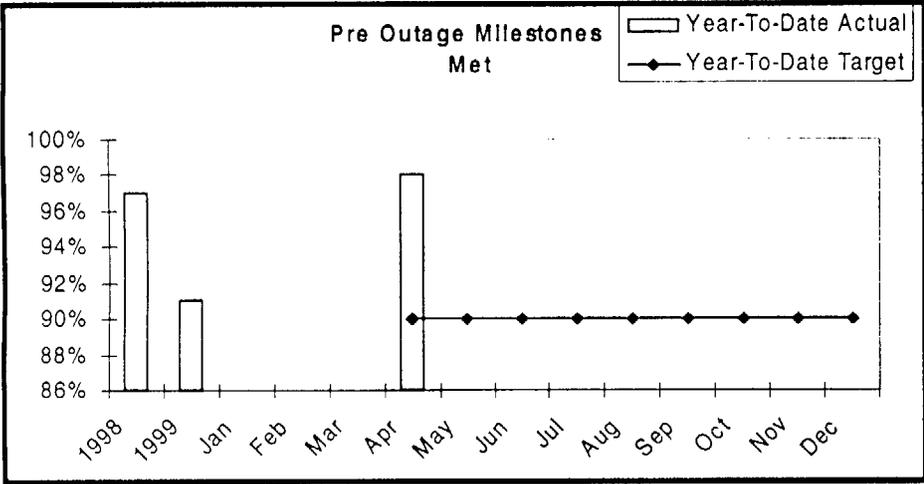
# Production EQUIPMENT RELIABILITY



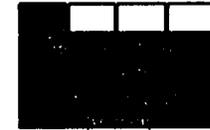
# Production RISK ASSESSMENT



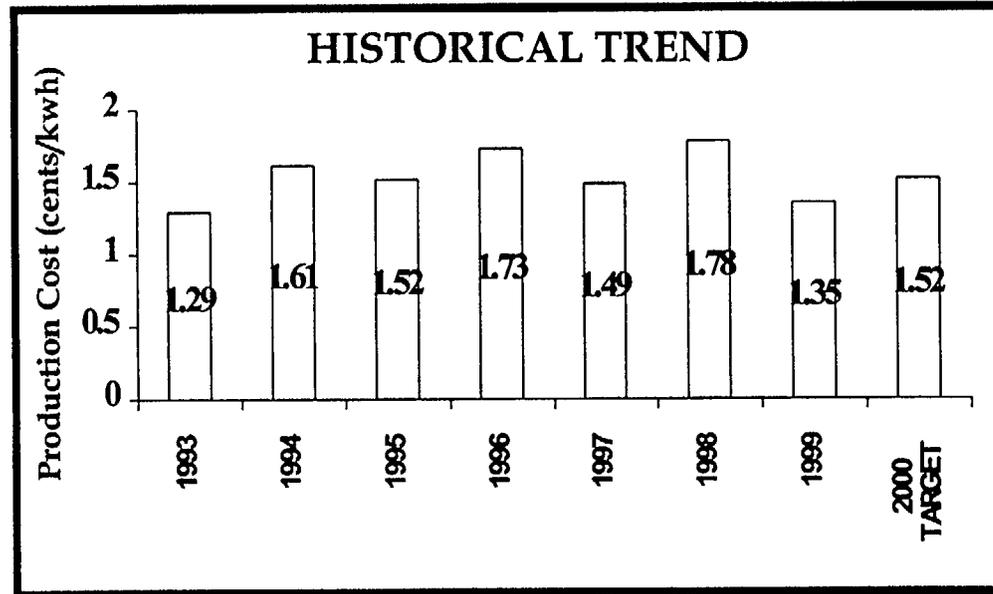
# Production OUTAGE IMPROVEMENT



# Competitive Positioning PRODUCTION COST PER NET KWH

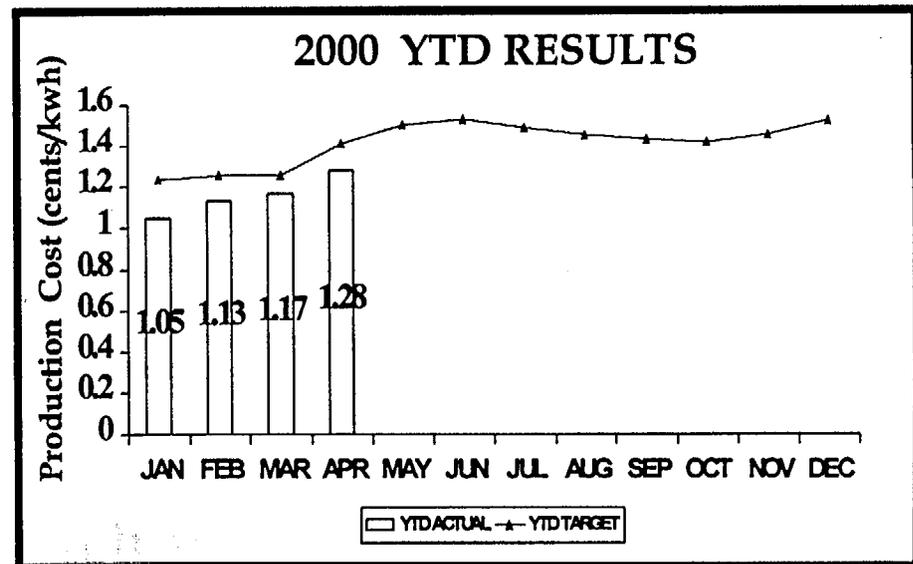


(GREEN)



## 2000 RESULTS (Cost/Generation)

	O&M/ (\$ mil)			Generation (Mwh)		
	Actual	Budget	Var	Actual	Target	Var.
January	19.890	22.682	2.79	1885.47	1827.85	57.62
February	38.634	44.501	5.87	3412.37	3542.66	(130.29)
March	61.562	67.422	5.86	5262.83	5375.92	(113.09)
April	86.017	95.661	9.64	6731.30	6810.12	(78.82)
May						
June						
July						
August						
September						
October						
November						
December						



# Competitive Positioning

## PRODUCTION COST PER NET KWH

### DEFINITION:

This is a standard industry measure of the station's total production cost per net kWh generated. The numerator is the sum of Oconee functional Non-Fuel Operating and Maintenance (O&M) costs and fuel costs for the site. The denominator is actual net generation for the site. This measure is an incentive goal for the Employee and Management Incentive plans. The 2000 target of 1.52 cents/kWh is based on achieving Top Quartile industry ranking based on two scheduled refueling outages (3EOC18 & 1EOC19) for the year.

NOTE: For incentive purposes, reported generation will be adjusted upward by adding back any "SOC"-related generation losses (loadfollow or reduced power operations to conserve fuel).

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** YTD Production Cost and Year-end Projection  $\leq$  Target performance.  
**YELLOW:** YTD Production Cost and Year-end Projection  $\leq$  Minimum performance.  
**RED:** YTD Production Cost and Year-end Projection  $>$  Minimum performance.

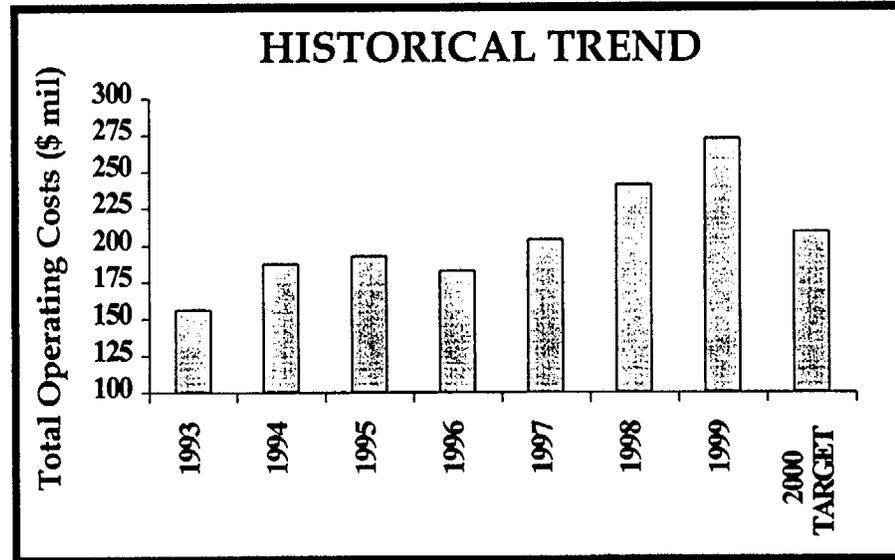
### CURRENT MONTH STATUS:

**GREEN:** YTD April 2000 Production Cost per Net kWh was 1.28 cents against a YTD target of 1.40 cents. Year-to-date generation is 78.82 mWh (1%) under target. In addition, YTD Production costs are \$9.64 million (10%) under target.

# Competitive Positioning NON FUEL O&M BUDGET

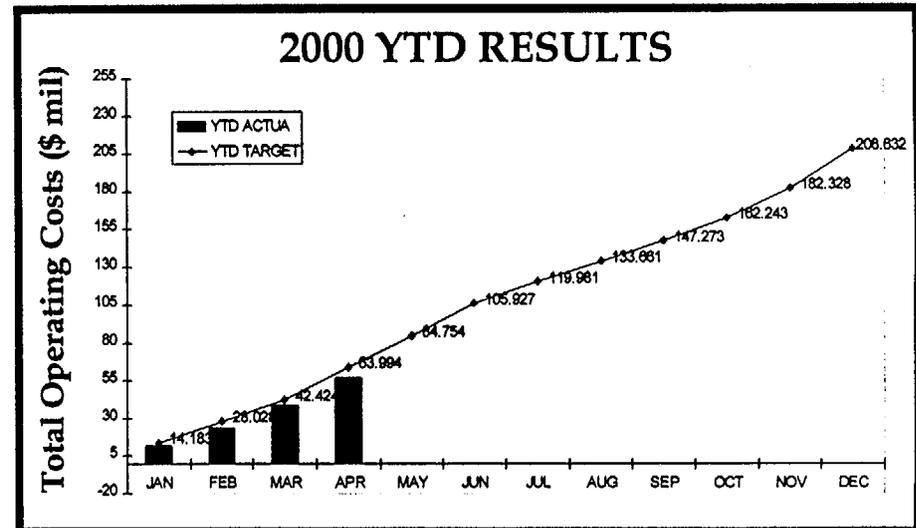


(GREEN)



### 2000 RESULTS (\$ millions)

	Current Month			Year-to-Date		
	Actual	Budget	Variance	Actual	Budget	Variance
January	11.520	14.183	2.663	11.520	14.183	2.663
February	11.839	13.845	2.006	23.359	28.028	4.669
March	15.361	14.396	(.965)	38.720	42.424	3.704
April	18.085	21.570	3.485	56.805	63.994	7.189
May						
June						
July						
August						
September						
October						
November						
December						



# Competitive Positioning

## NON FUEL O&M BUDGET

### DEFINITION:

Oconee Non Fuel O&M budget performance for 2000. Measure includes functional non-fuel O&M cost. It does not include fuel costs or allocated A&G costs.

### 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** Total Spending under YTD target and projected to be under year-end target.

**YELLOW:** Total Spending under YTD target but projected to be over year-end target **OR** over YTD target but projected to be under year-end target

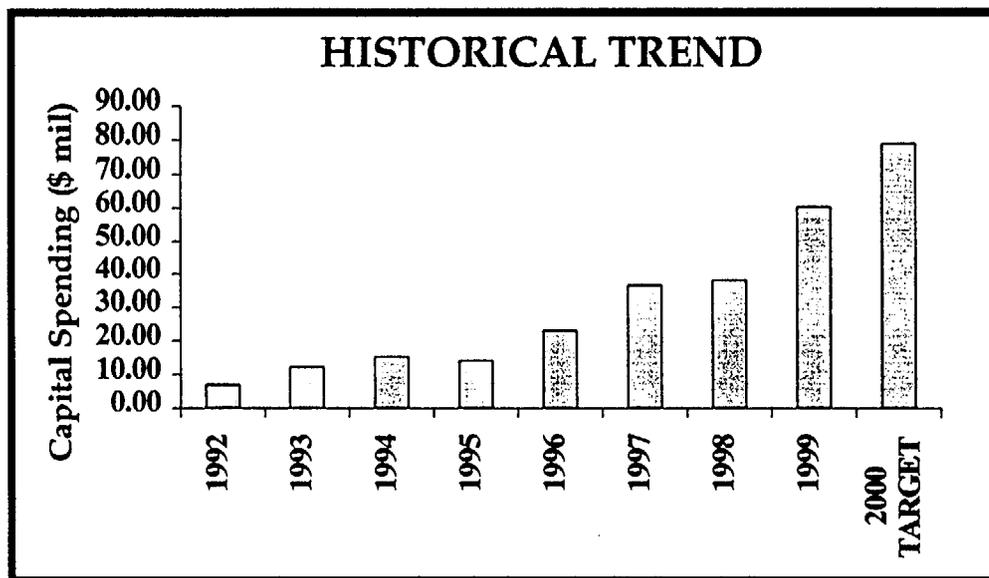
**RED:** Total Spending over YTD target with projection indicating year-end goal unlikely to be achieved or unrecoverable.

### CURRENT MONTH STATUS: GREEN

Year to date actual through April, the ONS/Keowee business unit is \$7.189 million under our non fuel operating (O&M) budget.

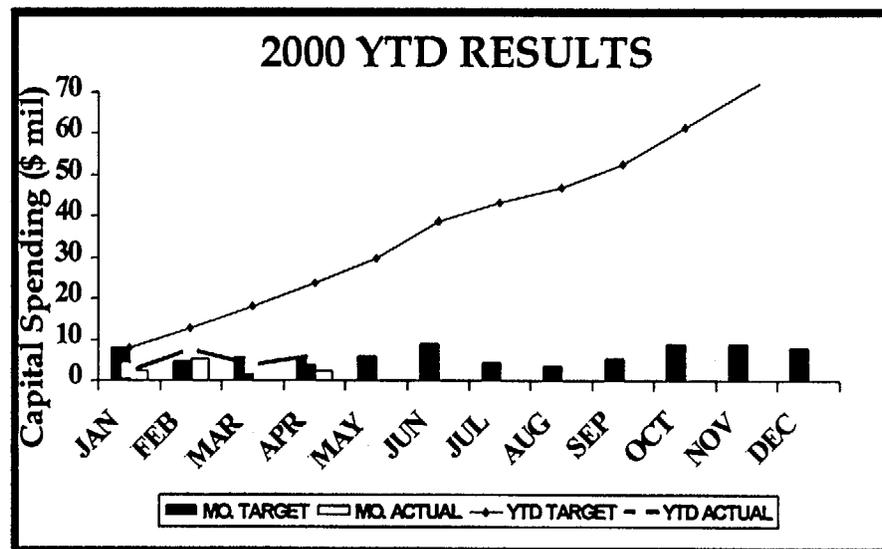
# Competitive Positioning CAPITAL BUDGET

CAPITAL BUDGET			
(Martin)			
(YELLOW)			



### 2000 RESULTS (\$ millions)

	Current Month			Year-to-Date		
	Actual	Budget	Variance	Actual	Budget	Variance
January	2.534	7.942	5.408	2.534	7.942	5.408
February	5.340	4.857	(0.483)	7.874	12.799	4.925
March	-4.059	5.540	9.599	3.815	18.339	14.524
April	2.399	5.602	3.203	6.214	23.941	17.727
May						
June						
July						
August						
September						
October						
November						
December						



# Competitive Positioning CAPITAL BUDGET

## DEFINITION:

Capital expenditures for Oconee in capital classes BB (Nuclear Betterment's), BE (Nuclear Environmental), SA (Buildings) and AB and AA (Refurbishment).

Goal is to complete the 2000 approved capital plan within +/- 10%.

## 2000 MEASURES SUCCESS CRITERIA:

**GREEN:** YTD capital expenditures are within +/- 10% of YTD budget and projected to be within 10% of year-end budget

**YELLOW:** YTD capital within +/- 10% but projected to be off Year-end target **OR**

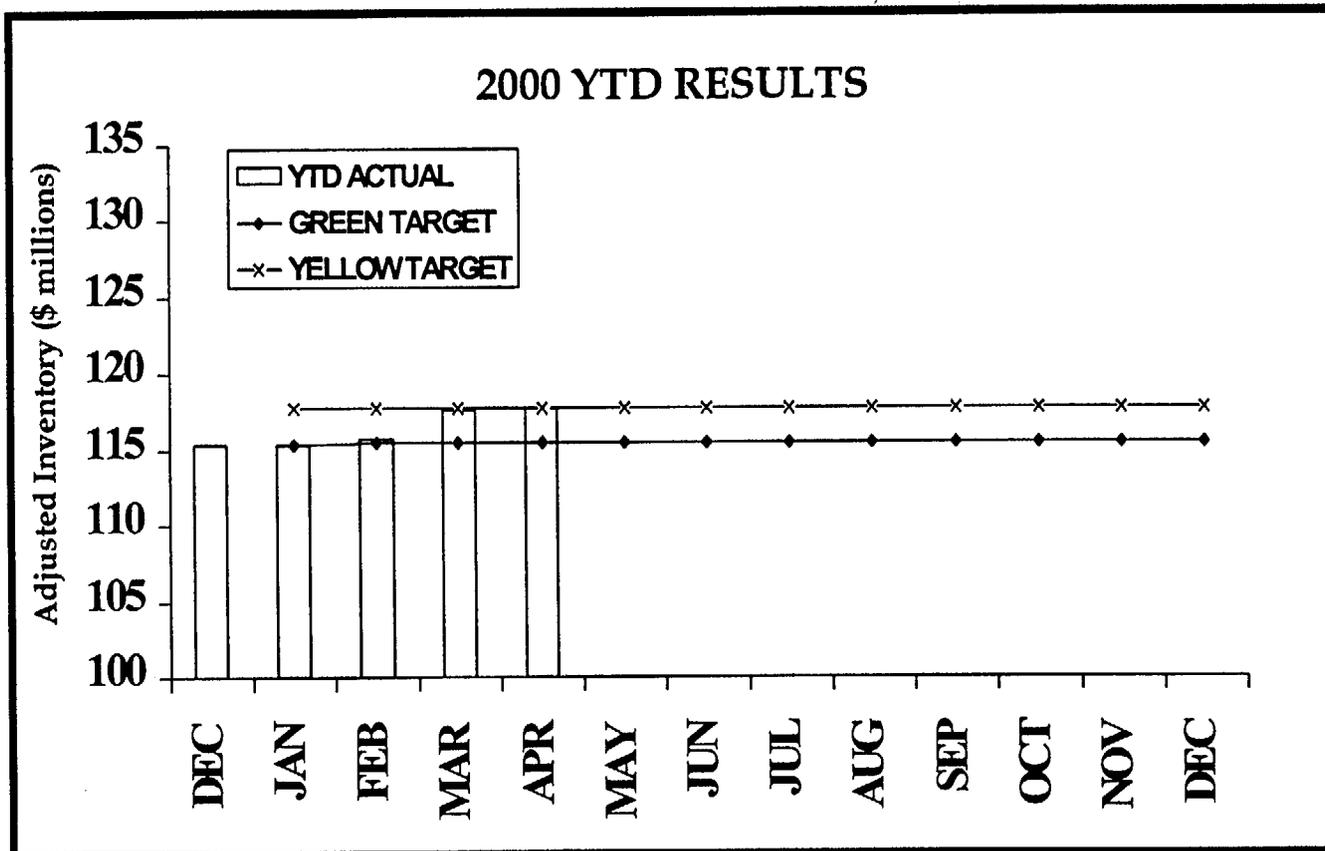
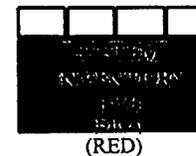
YTD expenditures are outside +/- 10% but are projected to be on target by year-end.

**RED:** YTD capital expenditures are outside +/- 10% of YTD budget and are projected to be outside +/- 10% at year-end.

## CURRENT MONTH STATUS: **YELLOW**

Year-to-date actual capital expenditures of \$6.214 million are 74% *under* the budget of \$23.941 million.

# Competitive Positioning SYSTEM INVENTORY LEVEL



# Competitive Positioning SYSTEM INVENTORY LEVEL

**OBJECTIVE:** For the Nuclear Team to manage overall inventory through initiatives aimed at increasing % planned inventory.

**DEFINITION:**

Adjusted Inventory = Total NGD O&M Inventory dollars minus Total NGD Planned Inventory Dollars. Goal is to increase percent planned inventory.

Planned Inventory = WMS Reservations (\$), Surplus \$, Direct Stock \$ and Emergency Inventory.

The 2000 goal is based on the 12/31/99 ending inventory (\$115,340,908).

Total Inventory represents all inventory: O&M, Capital and Planned.

**2000 MEASURES SUCCESS CRITERIA:**

**GREEN:** Adjusted O&M Inventory Level  $\leq$  \$115,340,908 (no increase from 12/31/99)

**YELLOW:** Adjusted O&M Inventory Level  $\leq$  \$117,647,726 (no more than 2% increase)

**RED:** Adjusted O&M Inventory Level  $>$  \$117,647,726 (greater than 2% increase)

**CURRENT MONTH STATUS:**

**RED:** NGD Adjusted O&M Inventory was \$117.73 million through April, a net increase of \$2.39 million (2.07%) from December, 1999.

Total Inventory has increased \$2.19 million (1.30%) since December, 1999..

Total adjusted inventory is calculated as follows:	<u>12/31/99</u>	<u>4/30/00</u>
O&M Inventory \$ On Hand	\$ 147.29	\$ 149.98
Less: Total Planned Inventory	<u>(31.95)</u>	<u>(32.25)</u>
Adjusted O&M Inventory	\$ 115.34	\$ 117.73
	=====	=====

**RECOVERY PLAN:**

Actions include the following:

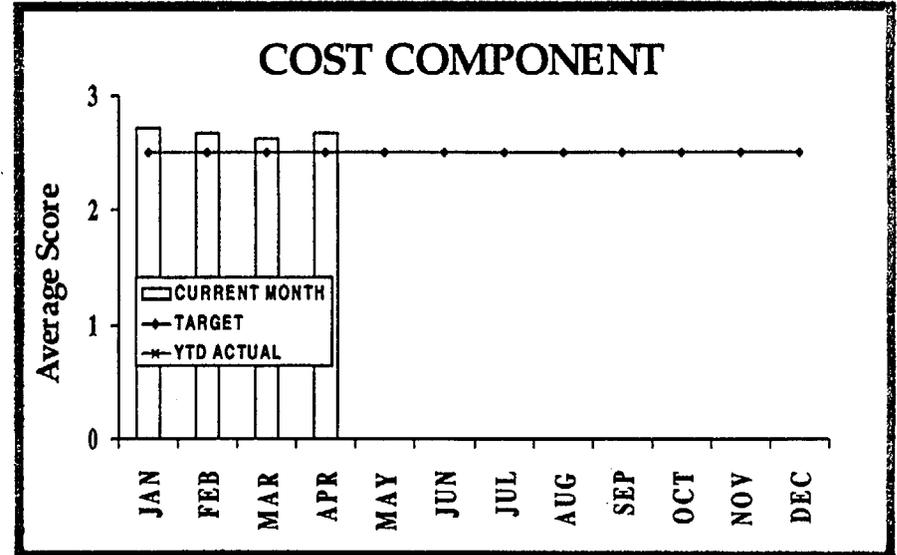
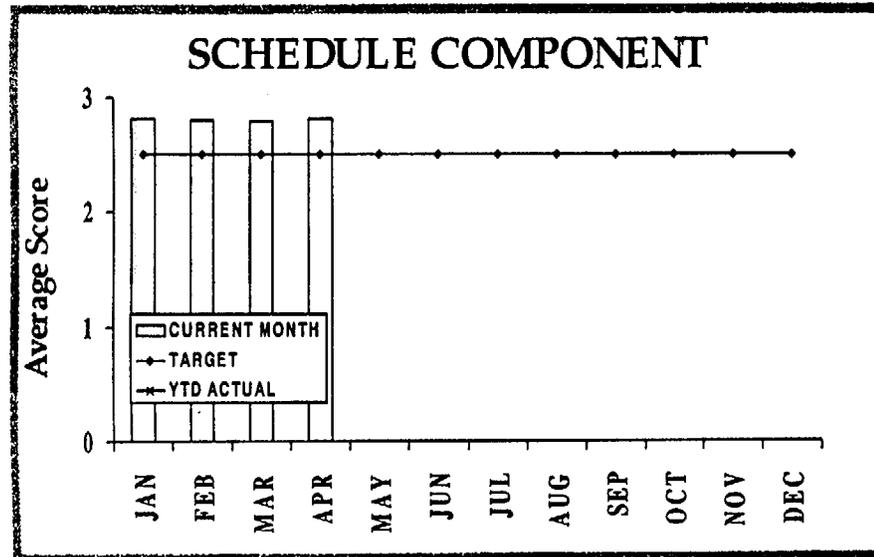
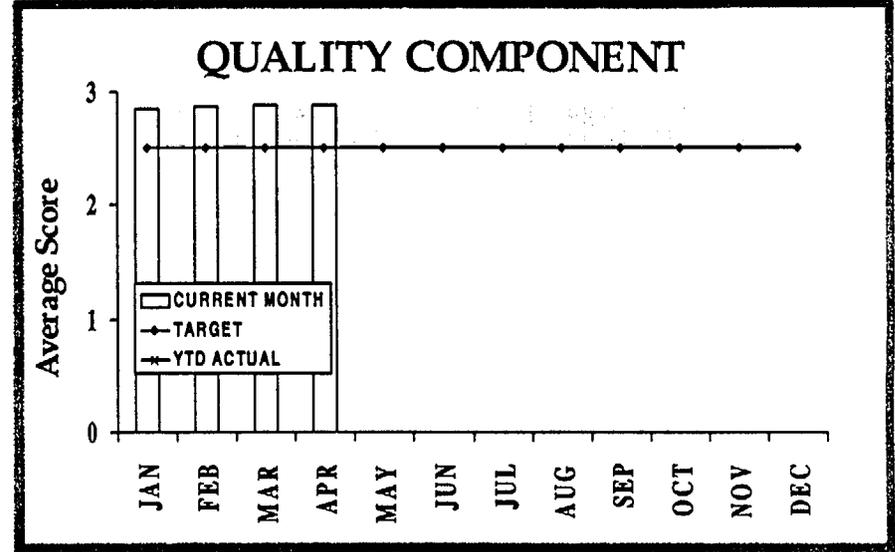
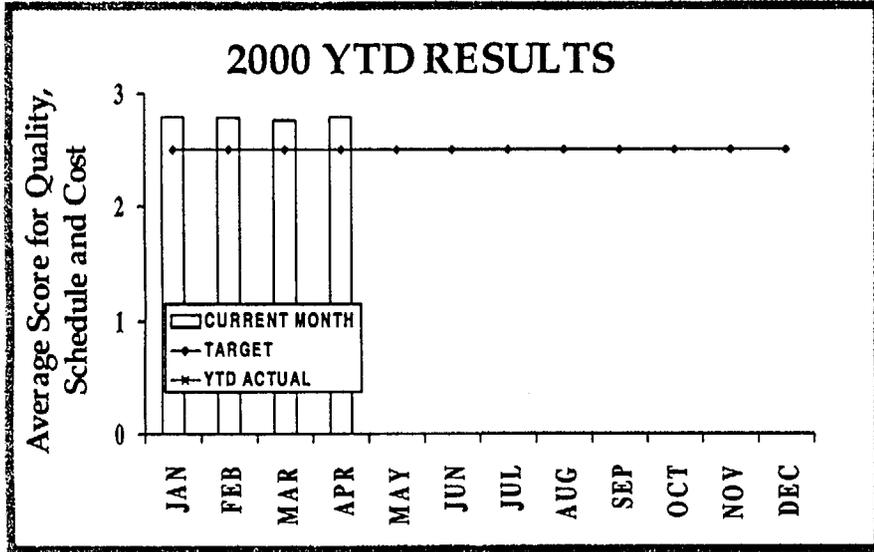
- \* Partnering with Maintenance for review/ approvals on surplus and new orders.
- \* Monitoring reorders to assure optimum levels are being procured based on known demands.
- \* New Stock Code request are being monitored to validate need and to assure superseded items are excessed.
- \* Excess Inventory items are being circulated to Fossil and Power Delivery locations for their use vs purchase.
- \* Consignment negotiations are in progress now for Bolting, Piping, RP Clothing.
- \* Disposal of unused or reallocation of "5866" subclass inventory (one time purchases) to owners or surplus.
- \* Contracts with suppliers such as Westinghouse to "buy back" certain inventories (ie Turbine Valve parts).

The Commodities Management BEST is sponsoring these initiatives which will help assure inventory targets are met.

# Competitive Positioning PROJECTS



(GREEN)



## ONS Projects Measured (Open / Active Projects Trended in Year 2000

### Current Project Scores

Project #	Type	Project Name	PM	Spon	Quality	Schedule	Cost	Average	Annunciator
12980M	O&M	U1 MSRH Feed Forward	LJB	WBE	3.00	2.00	3.00	2.67	Green
12981M	O&M	U1 Powdex Controls Upgrade	LJB	MCB	3.00	3.00	3.00	3.00	Green
12998C	Cap	U1 Repl Vital I&C Batteries	ECG	MCB	3.00	3.00	3.00	3.00	Green
13026C	Cap	Main Generator Disconnect Switch	JM	MCB	3.00	3.00	3.00	3.00	Green
13031CN	Cap	Unit 1 RB Aux. Cooler Coil	KR	MCB	3.00	2.50	3.00	2.83	Green
13054M	O&M	U1 MS Line Supports	LJB	WBE	3.00	3.00	3.00	3.00	Green
13056M	O&M	MDEFWP Pump Arc Valve Strainers	ESF	WBE	3.00	3.00	3.00	3.00	Green
13060M	O&M	Replace 1ESV-1 and 1ESV-2	ESF	WBE	3.00	3.00	3.00	3.00	Green
13066M	O&M	U1RCP Seal Leakage Instrumentation	LJB	WBE	3.00	2.00	3.00	2.67	Green
13067CN	Cap	U1UpgradeGL89-10 Main Steam Valve and	AWB	MCB	3.00	3.00	3.00	3.00	Green
1354C	Cap	Repl Bldg Spray Pump Motor U3	KW	TDM	3.00	3.00	3.00	3.00	Green
1361CN	Cap	Keowee ACB's 3 & 4	AWB	MCB	3.00	3.00	3.00	3.00	Green
1393CN	Cap	Reroof Auxiliary Building U1	SC	JES	3.00	2.75	3.00	2.92	Green
1395CN	Cap	Reroof Auxiliary Building U2	SC	JES	2.83	2.67	2.67	2.72	Green
1396C	Cap	U1 RCP Refurb	GO	TDM	2.75	2.50	2.50	2.58	Green
1397C	Cap	1C LPSW Replacement	KW	TDM	3.00	3.00	3.00	3.00	Green
1398C	Cap	U2 RCP Refurb	GO	TDM	3.00	2.25	3.00	2.75	Green
1421C	Cap	E Heater Drain Pump Repl	KW	TDM	3.00	3.00	3.00	3.00	Green
1425CN	Cap	600 Volt Breakers and Relays	EF	MCB	3.00	2.50	2.00	2.50	Yellow
1426CN	Cap	Refurbish 4kv and 7kv Breakers	EF	MCB	3.00	3.00	3.00	3.00	Green
1438CN	Cap	Westinghouse Relay Replacement	EF	MCB	3.00	2.67	3.00	2.89	Green
1441CN	Cap	U2 Cutler Hammer Relay Replacement	KR	MCB	2.75	3.00	3.00	2.92	Green
1441CN1	Cap	U1 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green
1441CN3	Cap	U3 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green
1441CNK1	Cap	Ke1 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green
1441CNK2	Cap	Ke2 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green
1444CN	Cap	Small Bore Raw Water Piping	EGS	MCB	2.75	3.00	1.00	2.25	Yellow
1486CN	Cap	Control Room Habitability Upgrade	RB	LJA	3.00	3.00	3.00	3.00	Green
1488CN	Cap	1B RBCU Motor	RR	MCB	3.00	3.00	2.00	2.67	Green
1490CN	Cap	U2 Westinghouse Relay Replacement	EF	MCB	3.00	2.67	3.00	2.89	Green
1491CN	Cap	U1 Westinghouse Relay Replacement	EF	MCB	3.00	2.67	3.00	2.89	Green
22865M	O&M	U2 RTD Replacements	ESF	WBE	3.00	3.00	3.00	3.00	Green
22980M	O&M	U2 MSRH Feed Forward	LJB	WBE	3.00	2.00	3.00	2.67	Green
22981CN	Cap	U2 Powdex Control	LJB	MCB	3.00	3.00	3.00	3.00	Green
23056M	O&M	MDEFWP Pump Arc Valve Strainers	ESF	WBE	3.00	3.00	3.00	3.00	Green
23060M	O&M	Replace 2ESV-1 and 2ESV-2	ESF	WBE	3.00	3.00	3.00	3.00	Green
23067CN	Cap	U2UpgradeGL89-10 Main Steam Valve and	AWB	MCB	3.00	3.00	3.00	3.00	Green
2914C	Cap	Fuel Handling Cranes	LCA	MCB	3.00	3.00	2.33	2.78	Green
3027CN	Cap	CY Starters	LC	MCB	2.60	2.75	2.50	2.62	Green
32980M	O&M	U3 MSRH Feed Forward	LJB	WBE	3.00	3.00	3.00	3.00	Green
32981M	O&M	U3 Powdex Controls Upgrade	LJB	MCB	3.00	1.00	3.00	2.33	Yellow
32998CN	Cap	Replace U3 Vital I&C Batteries	ECG	MCB	3.00	3.00	3.00	3.00	Green
33043M	O&M	U3 Reactor Building Isolation	ESF	WBE	3.00	2.50	3.00	2.83	Green
33054M	O&M	U3 MS Line Supports	LJB	WBE	3.00	3.00	2.40	2.80	Green
33056M	O&M	MDEFWP Pump Arc Valve Strainers	ESF	WBE	3.00	3.00	3.00	3.00	Green
33060M	O&M	Replace 3ESV-1 and 3ESV-2	ESF	WBE	3.00	3.00	3.00	3.00	Green
33067CN	Cap	U3UpgradeGL89-10 Main Steam Valve and	AWB	MCB	3.00	2.00	3.00	2.67	Green
53014M	O&M	Keowee Undervoltage Under Frequency	LJB	WBE	2.67	2.33	2.50	2.50	Yellow
53049CN	Cap	Keowee SV Relay Replacement	LC	MCB	3.00	2.00	2.00	2.33	Yellow
53052CN	Cap	Keowee U2 Load Center DB Breakers	LC	MCB	3.00	3.00	3.00	3.00	Green
53065CN	Cap	Keowee Underground Cable Replace	AWB	MCB	2.50	2.25	2.50	2.42	Yellow
6100M	O&M	GL 96_06 Code Compliance Analysis	TB	LJA	3.00	2.75	3.00	2.92	Green
CRDS	Cap	Control Rod Drive System Repl (3032)	ESF	MCB	3.00	3.00	2.00	2.67	Green
DOMECOAT	Cap	Dome Coatings	RLH	MCB	2.71	2.82	2.75	2.76	Green
EOPRWP2	O&M	EOP Rewrite Phase 2	KM	DJC	2.75	2.50	2.00	2.42	Yellow
HELB	O&M	High Energy Line Break	TB	LJA	2.75	1.50	2.33	2.19	Yellow
MTLCDCAP	Cap	2000 Materiel Condition Upgrade	JK	MCB	3.00	3.00	3.00	3.00	Green
MTURLPNC	Cap	3LPC Turbine Rotor Repl	JK	MCB	3.00	2.00	3.00	2.67	Green
OSRDCA5	O&M	OSRDC	HH	LJA	3.00	2.70	2.67	2.79	Green
SQUGKE	O&M	SQUG Keowee	RM	RBT	3.00	3.00	2.83	Green	Green
SQUGOUT	O&M	SQUG - Oconee	RM	RBT	3.00	3.00	2.83	Green	Green
VALVLPCN	Cap	Valve LP 17 & 18 Repl	EGS	MCB	2.00	2.00	2.00	2.00	Yellow
		Summary of all measured projects:	62		2.94	2.71	2.79	2.81	Green

**ONS Projects Measured(Total Closed and Active) for Year 2000**

Project #	Type	Project Name	PM	Spon	Current Project Scores					Annunclator
					Quality	Schedule	Cost	Average		
1284C	Cap	Repl of 1A Bldg Spray Pump Motor	KW	TDM	3.00	3.00	3.00	3.00	Green	
12865M	O&M	U1 RTD Replacements	ESF	WBE	3.00	3.00	3.00	3.00	Green	
12885M	O&M	Repl. U-1 NV Pump Cold Leg Iso. Valves	ECG	WBE	3.00	3.00	2.00	2.67	Green	
12980M	O&M	U1 MSRHH Feed Forward	LJB	WBE	3.00	2.00	3.00	2.67	Green	
12981M	O&M	U1 Powdex Controls Upgrade	LJB	MCB	3.00	3.00	3.00	3.00	Green	
12998C	Cap	U1 Repl Vital I&C Batteries	ECG	MCB	3.00	3.00	3.00	3.00	Green	
13026C	Cap	Main Generator Disconnect Switch	JM	MCB	3.00	3.00	3.00	3.00	Green	
13031CN	Cap	Unit 1 RB Aux. Cooler Coil	KR	MCB	3.00	2.50	3.00	2.83	Green	
13043M	O&M	U1 Reactor Building Isolation	ESF	WBE	3.00	3.00	3.00	3.00	Green	
13054M	O&M	U1 MS Line Supports	LJB	WBE	3.00	3.00	3.00	3.00	Green	
13056M	O&M	MDEFWP Pump Arc Valve Strainers	ESF	WBE	3.00	3.00	3.00	3.00	Green	
13060M	O&M	Replace 1ESV-1 and 1ESV-2	ESF	WBE	3.00	3.00	3.00	3.00	Green	
13066M	O&M	U1RCP Seal Leakage Instrumentation	LJB	WBE	3.00	2.00	3.00	2.67	Green	
13067CN	Cap	U1UpgradeGL89-10 Main Steam Valve	AWB	MCB	3.00	3.00	3.00	3.00	Green	
1331C	Cap	Turbine Seed Rotor (part of MTURLPNC)	JK	MCB	2.67	3.00	3.00	2.89	Green	
1338CN	Cap	Keowee ACBs 1 & 2 (Not Refurb)	AWB	WBE	2.50	2.75	2.00	2.42	Yellow	
1354C	Cap	Repl Bldg Spray Pump Motor U3	KW	TDM	3.00	3.00	3.00	3.00	Green	
1361CN	Cap	Keowee ACBs 3 & 4	AWB	MCB	3.00	3.00	3.00	3.00	Green	
1393CN	Cap	Reroof Auxiliary Building U1	SC	JES	3.00	2.75	3.00	2.92	Green	
1395CN	Cap	Reroof Auxiliary Building U2	SC	JES	2.83	2.67	2.67	2.72	Green	
1396C	Cap	U1 RCP Refurb	GO	TDM	2.75	2.50	2.50	2.58	Green	
1397C	Cap	1C LPSW Replacement	KW	TDM	3.00	3.00	3.00	3.00	Green	
1398C	Cap	U2 RCP Refurb	GO	TDM	3.00	2.25	3.00	2.75	Green	
1421C	Cap	E Heater Drain Pump Repl	KW	TDM	3.00	3.00	3.00	3.00	Green	
1425CN	Cap	600 Volt Breakers and Relays	EF	MCB	3.00	2.50	2.00	2.50	Yellow	
1426CN	Cap	Refurbish 4kv and 7kv Breakers	EF	MCB	3.00	3.00	3.00	3.00	Green	
1428C	Cap	Oconee County Eoc Equip Installation	RW	WWF	3.00	2.00	3.00	2.67	Green	
1438CN	Cap	Westinghouse Relay Replacement	EF	MCB	3.00	2.67	3.00	2.89	Green	
1441CN	Cap	U2 Cutler Hammer Relay Replacement	KR	MCB	2.75	3.00	3.00	2.92	Green	
1441CN1	Cap	U1 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green	
1441CN3	Cap	U3 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green	
1441CNK1	Cap	Ke1 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green	
1441CNK2	Cap	Ke2 Cutler Hammer Relay Replacement	KR	MCB	3.00	3.00	3.00	3.00	Green	
1444CN	Cap	Small Bore Raw Water Piping	EGS	MCB	2.75	3.00	1.00	2.25	Yellow	
1486CN	Cap	Control Room Habitability Upgrade	RB	LJA	3.00	3.00	3.00	3.00	Green	
1488CN	Cap	1B RBCU Motor	RR	MCB	3.00	3.00	2.00	2.67	Green	
1490CN	Cap	U2 Westinghouse Relay Replacement	EF	MCB	3.00	2.67	3.00	2.89	Green	
1491CN	Cap	U1 Westinghouse Relay Replacement	EF	MCB	3.00	2.67	3.00	2.89	Green	
1493CN	Cap	2B Reactor Building Spray Pump Motor Repl	RR	MCB	2.75	3.00	3.00	2.92	Green	
22865M	O&M	U2 RTD Replacements	ESF	WBE	3.00	3.00	3.00	3.00	Green	
22885M	O&M	Repl. U-2 NV Pump Cold Leg Iso. Valves	ECG	WBE	3.00	3.00	3.00	3.00	Green	
22960M	O&M	U2 MSRHH Feed Forward	LJB	WBE	3.00	2.00	3.00	2.67	Green	
22981CN	Cap	U2 Powdex Control	LJB	MCB	3.00	3.00	3.00	3.00	Green	
22998C	Cap	U2 Repl Vital I&C Batteries	ECG	MCB	2.83	2.67	2.00	2.50	Yellow	
23043M	O&M	U2 Reactor Building Isolation	ESF	WBE	3.00	3.00	3.00	3.00	Green	
23054M	O&M	U2 MS Line Supports	LJB	WBE	3.00	2.67	2.00	2.56	Green	
23056M	O&M	MDEFWP Pump Arc Valve Strainers	ESF	WBE	3.00	3.00	3.00	3.00	Green	
23060M	O&M	Replace 2ESV-1 and 2ESV-2	ESF	WBE	3.00	3.00	3.00	3.00	Green	
23067CN	Cap	U2UpgradeGL89-10 Main Steam Valve	AWB	MCB	3.00	3.00	3.00	3.00	Green	
2914C	Cap	Fuel Handling Cranes	LCA	MCB	3.00	3.00	2.33	2.78	Green	
3027CN	Cap	CY Starters	LC	MCB	2.60	2.75	2.50	2.62	Green	
32980M	O&M	U3 MSRHH Feed Forward	LJB	WBE	3.00	3.00	3.00	3.00	Green	
32981M	O&M	U3 Powdex Controls Upgrade	LJB	MCB	3.00	1.00	3.00	2.33	Yellow	
32998CN	Cap	Replace U3 Vital I&C Batteries	ECG	MCB	3.00	3.00	3.00	3.00	Green	
32999C	Cap	U3 Repl Power Batteries	ECG	MCB	3.00	3.00	2.67	2.89	Green	
33043M	O&M	U3 Reactor Building Isolation	ESF	WBE	3.00	2.50	3.00	2.83	Green	
33054M	O&M	U3 MS Line Supports	LJB	WBE	3.00	3.00	2.40	2.80	Green	
33056M	O&M	MDEFWP Pump Arc Valve Strainers	ESF	WBE	3.00	3.00	3.00	3.00	Green	
33060M	O&M	Replace 3ESV-1 and 3ESV-2	ESF	WBE	3.00	3.00	3.00	3.00	Green	
33067CN	Cap	U3UpgradeGL89-10 Main Steam Valve	AWB	MCB	3.00	2.00	3.00	2.67	Green	
52959C	Cap	Independent Spent Fuel Storage Installation	JES	WBE	2.75	2.75	2.00	2.50	Yellow	
53014M	O&M	Keowee Undervoltage Under Frequency	LJB	WBE	2.67	2.33	2.50	2.50	Yellow	
53049CN	Cap	Keowee SV Relay Replacement	LC	MCB	3.00	2.00	2.00	2.33	Yellow	
53052CN	Cap	Keowee U2 Load Center DB Breakers	LC	MCB	3.00	3.00	3.00	3.00	Green	
53065CN	Cap	Keowee Underground Cable Replace	AWB	MCB	2.50	2.25	2.50	2.42	Yellow	
6100M	O&M	GL 96_06 Code Compliance Analysis	TB	LJA	3.00	2.75	3.00	2.92	Green	
CRDS	Cap	Control Rod Drive System Repl (3032)	ESF	MCB	3.00	3.00	2.00	2.67	Green	
DOMECOAT	Cap	Dome Coatings	RLH	MCB	2.71	2.82	2.75	2.76	Green	
EOPINSPP	O&M	EOP Inspection	LK	WWF	2.60	2.57	3.00	2.72	Green	
EOPRWP2	O&M	EOP Rewrite Phase 2	KM	DJC	2.75	2.50	2.00	2.42	Yellow	
FIRESEAL	O&M	ONS Intrusive Inspection and Repair	DL	JSF	3.00	2.67	3.00	2.89	Green	
HELB	O&M	High Energy Line Break	TB	LJA	2.75	1.50	2.33	2.10	Yellow	
MTLDCAP	Cap	2000 Materiel Condition Upgrade	JK	MCB	3.00	3.00	3.00	3.00	Green	
MTURLPNC	Cap	3LPC Turbine Rotor Repl	JK	MCB	3.00	2.00	3.00	2.67	Green	
OSRDCQAS	O&M	OSRDC	HH	LJA	3.00	2.70	2.67	2.79	Green	
SQUGKE	O&M	SQUG Keowee	RM	RBT	3.00	3.00	2.83	Green	Green	
SQUGOUT	O&M	SQUG - Oconee	RM	RBT	3.00	3.00	2.83	Green	Green	
VALVLPNC	Cap	Valve LP 17 & 18 Repl	EGS	MCB	2.00	2.00	2.00	2.00	Yellow	
		Summary of all measured projects:	78		2.93	2.74	2.76	2.80	Green	

**ONS Projects Measured - Total Closed during last 12 Months (4/99 - 3/00)**

Current Project Scores

Project #	Type	Project Name	PM	Spon	Quality	Schedule	Cost	Average	Annunciator
1284C	Cap	Repl of 1A Bldg Spray Pump Motor	KW	TDM	3.00	3.00	3.00	3.00	Green
12865M	O&M	U1 RTD Replacements	ESF	WBE	3.00	3.00	3.00	3.00	Green
12885M	O&M	Repl. U-1 NV Pump Cold Leg Iso. Valves	ECG	WBE	3.00	3.00	2.00	2.67	Green
13043M	O&M	U1 Reactor Building Isolation	ESF	WBE	3.00	3.00	3.00	3.00	Green
1331C	Cap	Turbine Seed Rotor (part of MTURLPNC)	JK	MCB	2.67	3.00	3.00	2.89	Green
1338CN	Cap	Keowee ACBs 1 & 2 (Not Refurb)	AWB	WBE	2.50	2.75	2.00	2.42	Yellow
1428C	Cap	Oconee County Eoc Equip Installation	RW	WWF	3.00	2.00	3.00	2.67	Green
1493CN	Cap	2B Reactor Building Spray Pump Motor Repl	RR	MCB	2.75	3.00	3.00	2.92	Green
22885M	O&M	Repl. U-2 NV Pump Cold Leg Iso. Valves	ECG	WBE	3.00	3.00	3.00	3.00	Green
22998C	Cap	U2 Repl Vital I&C Batteries	ECG	MCB	2.83	2.67	2.00	2.50	Yellow
23043M	O&M	U2 Reactor Building Isolation	ESF	WBE	3.00	3.00	3.00	3.00	Green
23054M	O&M	U2 MS Line Supports	LJB	WBE	3.00	2.67	2.00	2.56	Green
32999C	Cap	U3 Repl Power Batteries	ECG	MCB	3.00	3.00	2.67	2.89	Green
52959C	Cap	Independent Spent Fuel Storage InstallationC	JES	WBE	2.75	2.75	2.00	2.50	Yellow
EOPINSPP	O&M	EOP Inspection	LK	WWF	2.60	2.57	3.00	2.72	Green
FIRESEAL	O&M	ONS Intrusive Inspection and Repair	DL	JSF	3.00	2.67	3.00	2.89	Green
		<b>Summary of all measured projects:</b>	16		2.88	2.82	2.67	2.79	Green

# Competitive Positioning PROJECTS

## DEFINITION:

This measure is for 201 level projects greater than \$100,000, excluding projects for hardware purchases only, that complete during the year. The project performance measure for 2000, will consist of three components weighted equally: Quality, Schedule, and Cost.

The Quality portion of this measure will focus on how well the project management objectives are met. Because each project is unique, deliverables will be adjusted for the project specific needs. Performance rating: A project evaluation report will be completed by the Primary Customer, the Project sponsor, and the Project Manager. Each evaluator will rate how well each deliverable met their expectations using the following ratings:

1 = Failed to meet expectations    2 = Partially met expectations    3 = Met expectations

The average of the three evaluators scores will be the performance rating.

The Schedule measure will focus on how well project milestones are met. Project milestones will be defined in the scope and plan when the project is launched. Performance rating: The performance rating for milestones met will be supplied by the Project Manager and Business Group. This can be extracted from the project schedule and performance package used to manage the project. The rating will be based on the following scale for each milestone:

1 = > 28 days late    2 = 1-28 days late    3 = On time or early

The average score for the milestones will be the performance rating

The Cost measure will focus on how we manage total project costs. Performance Rating: The performance rating for cost met will be supplied by the Business Group. This can be extracted from the project cost and performance package used to manage the project. The rating will be based on the following scale:

1 = Greater than 110% of estimate    2 = Within 110% of estimate    3 = Within 100% of estimate

The average of all three sub-components, Quality, Schedule and Cost will represent the overall score for the Project Measure

## 2000 MEASURE SUCCESS CRITERIA:

**GREEN:**     $\geq 2.50$  YTD average score for all projects

**YELLOW:**     $\geq 1.75$  YTD average score for all projects

**RED:**     $< 1.75$  YTD average score for all projects

## CURRENT MONTH STATUS:

**GREEN:**    The April measure is based on the status of 16 COMPLETED projects. These are projects completed during the last 12 months.

Quality    2.88

Schedule    2.82

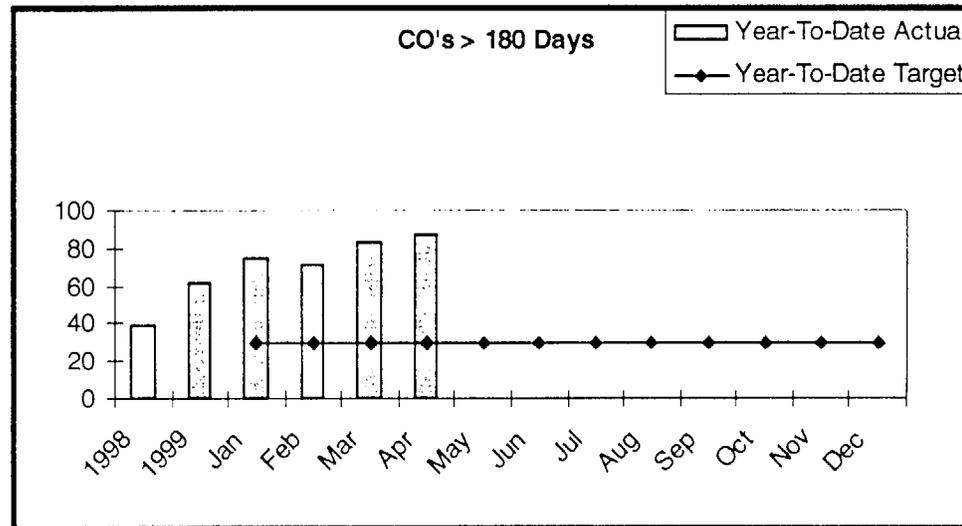
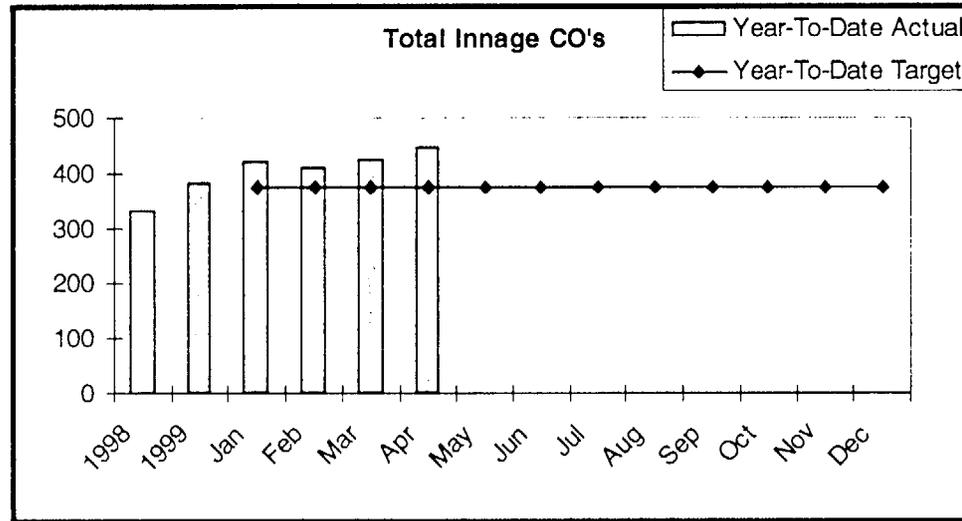
Cost    2.67

Average    2.79

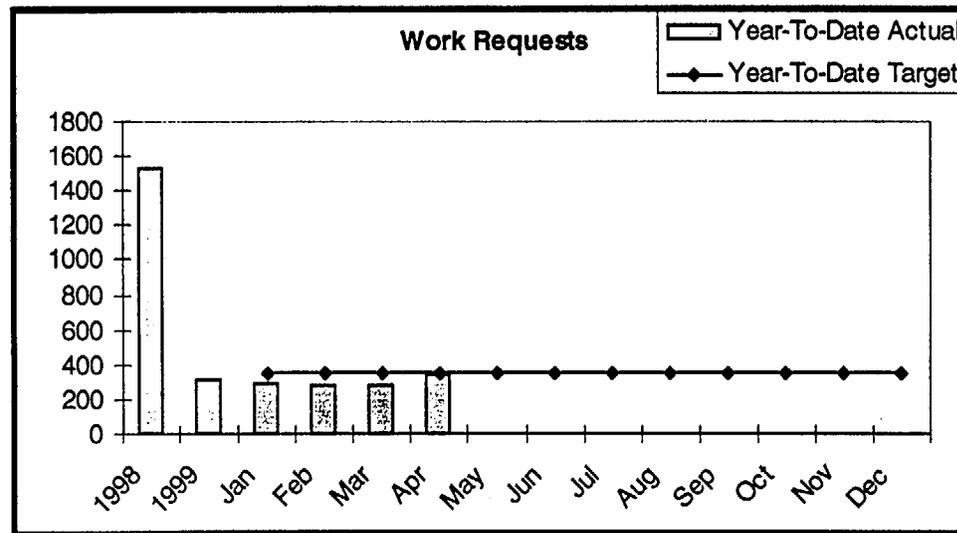
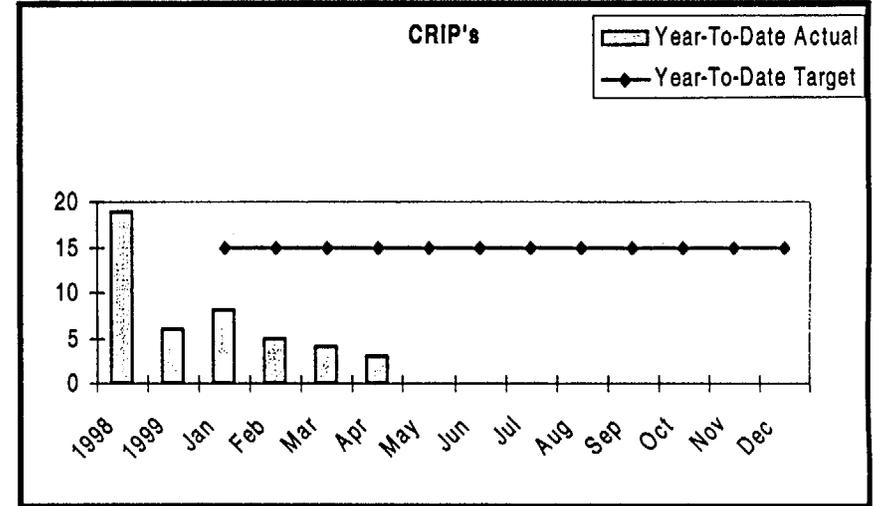
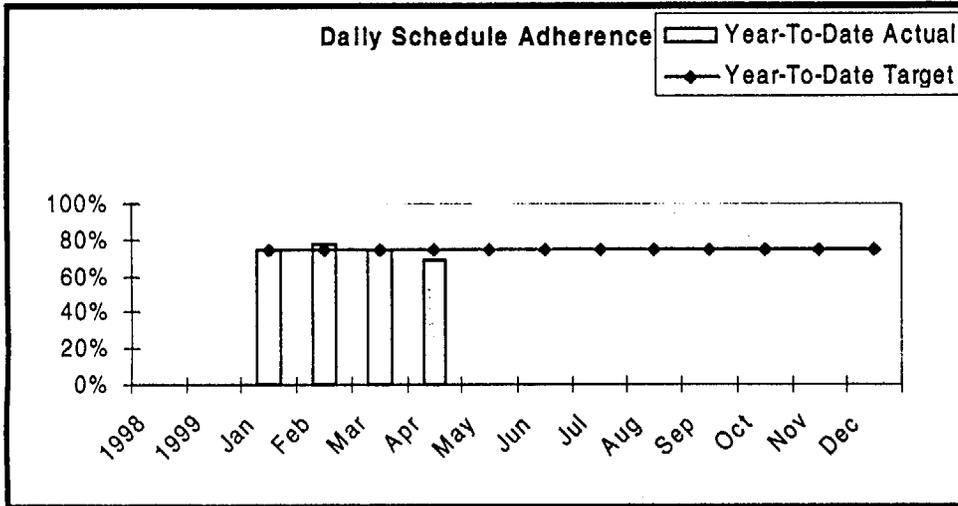
We are also currently measuring 62 additional active/open projects. The current status of these projects is also green.

# Competitive Positioning

## WORK PROCESS MEASURES

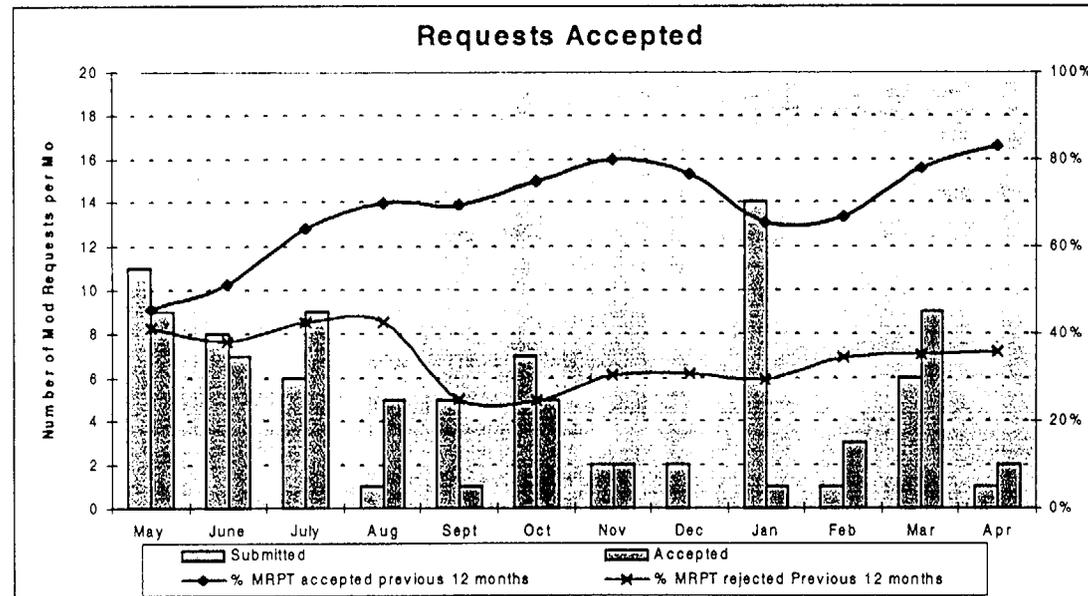
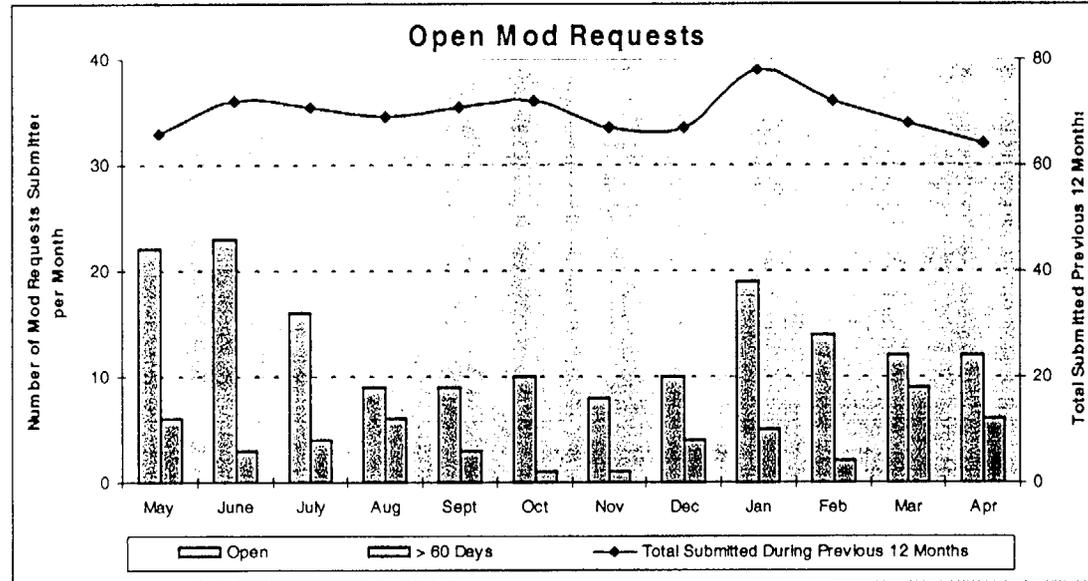


# Competitive Positioning WORK PROCESS MEASURES



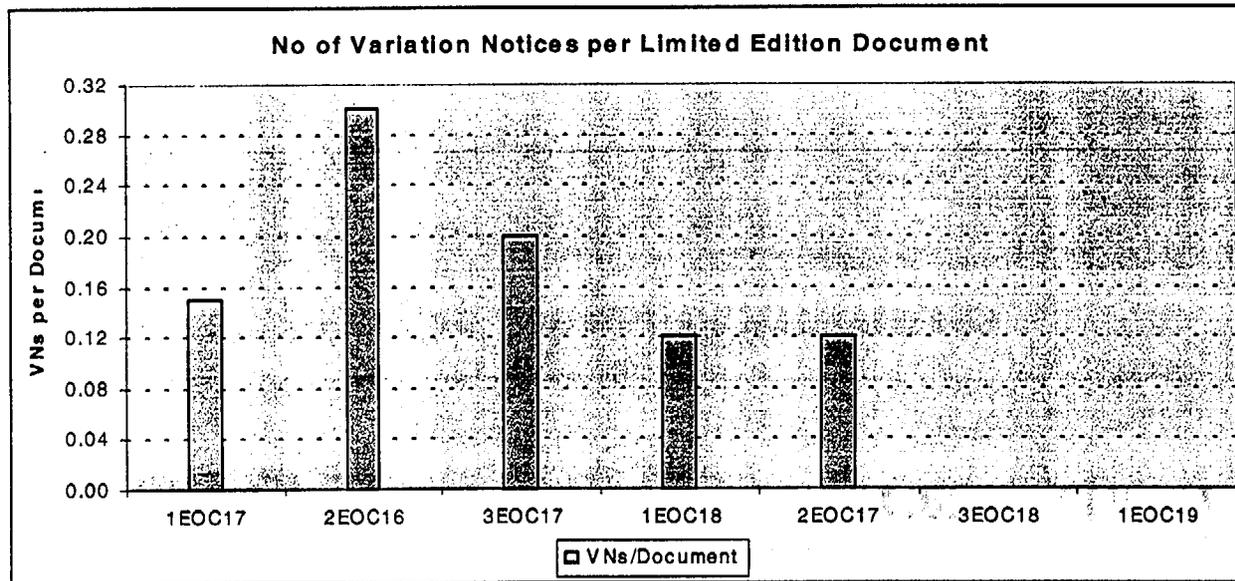
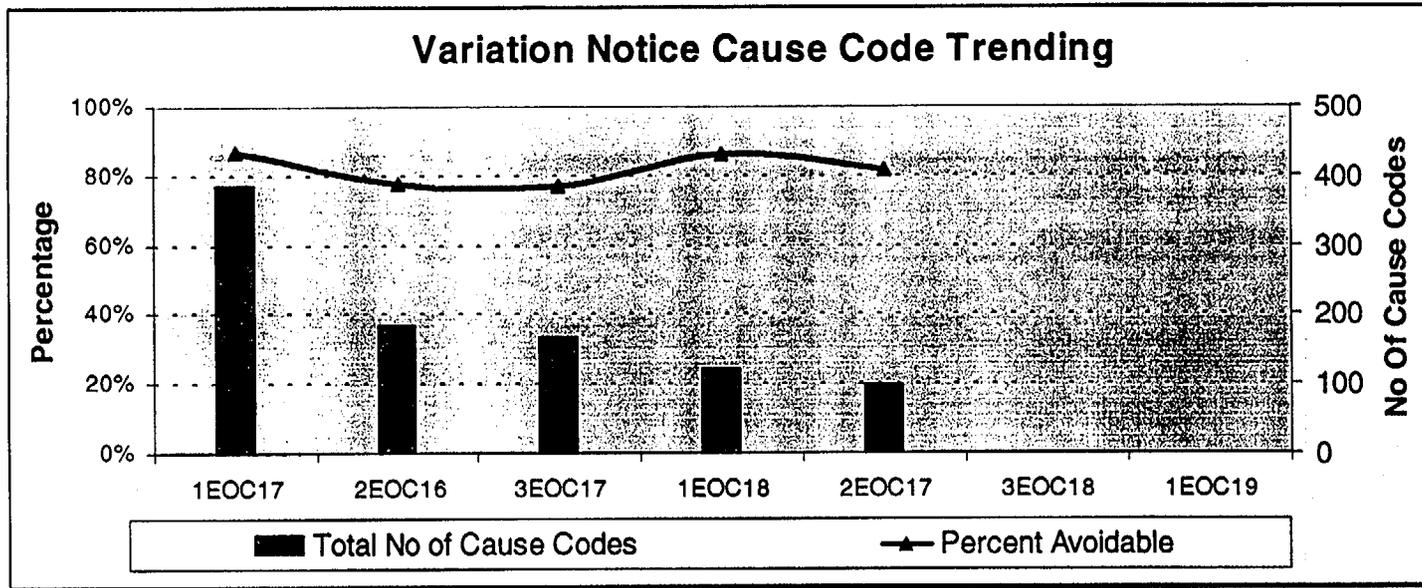
# Competitive Positioning

## MODIFICATION EFFECTIVENESS - ACTIVATION



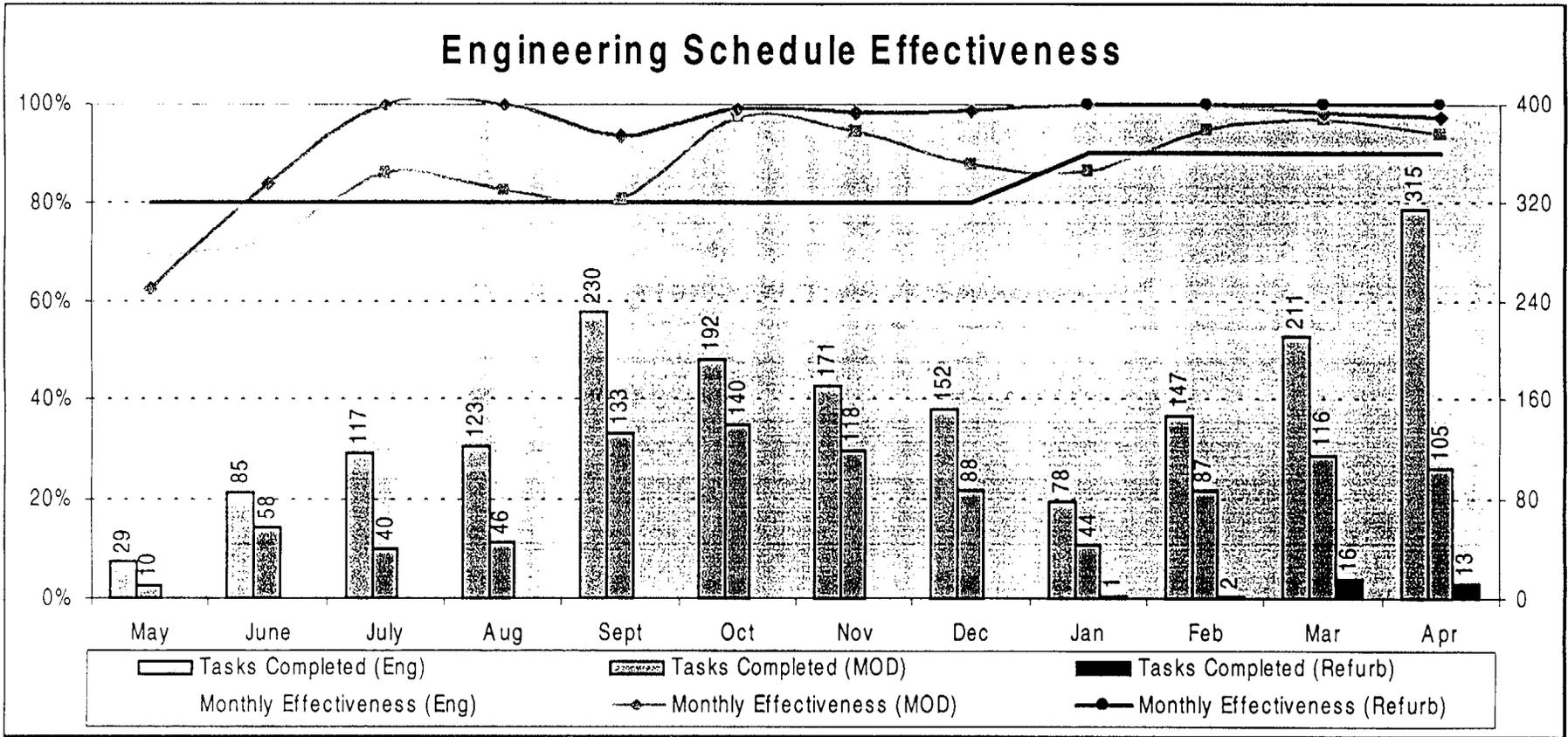
# Competitive Positioning

## MODIFICATION EFFECTIVENESS - QUALITY



# Competitive Positioning

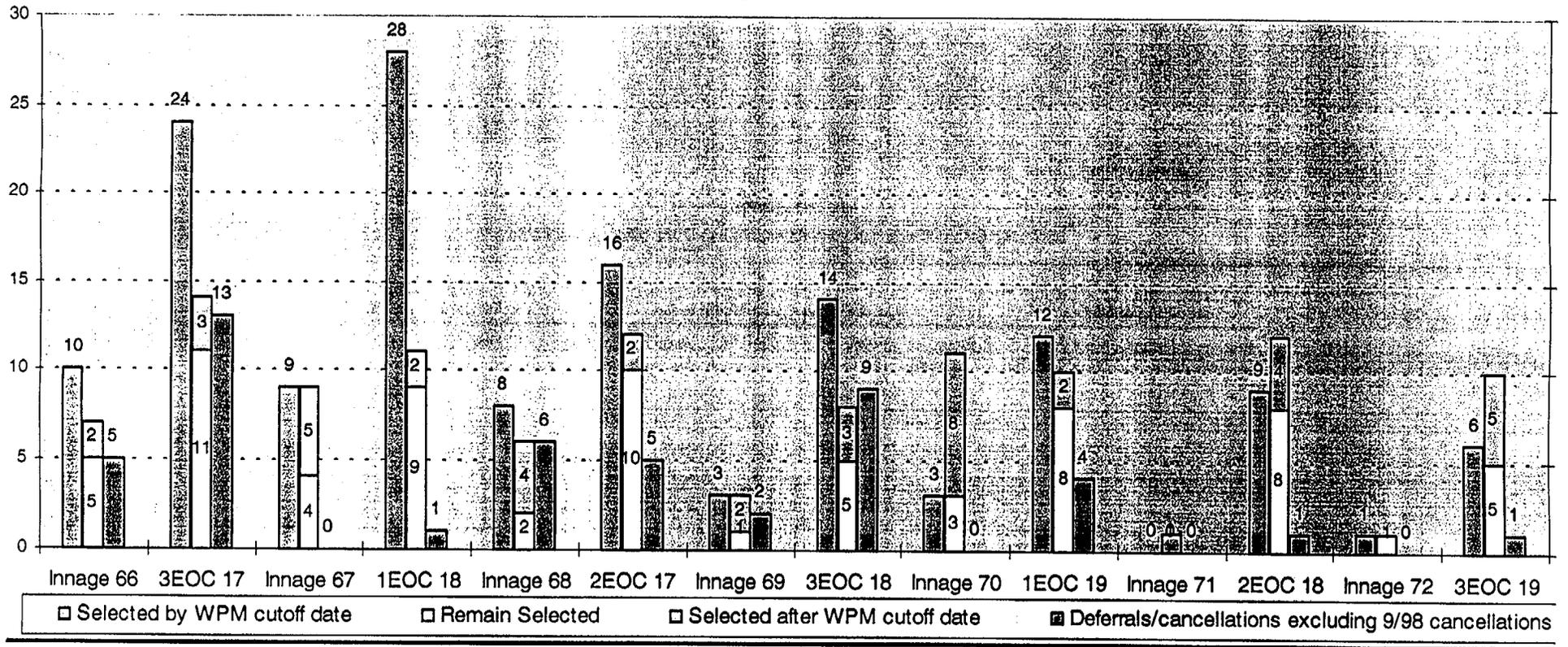
## MODIFICATION EFFECTIVENESS - WORK MANAGEMENT



# Competitive Positioning

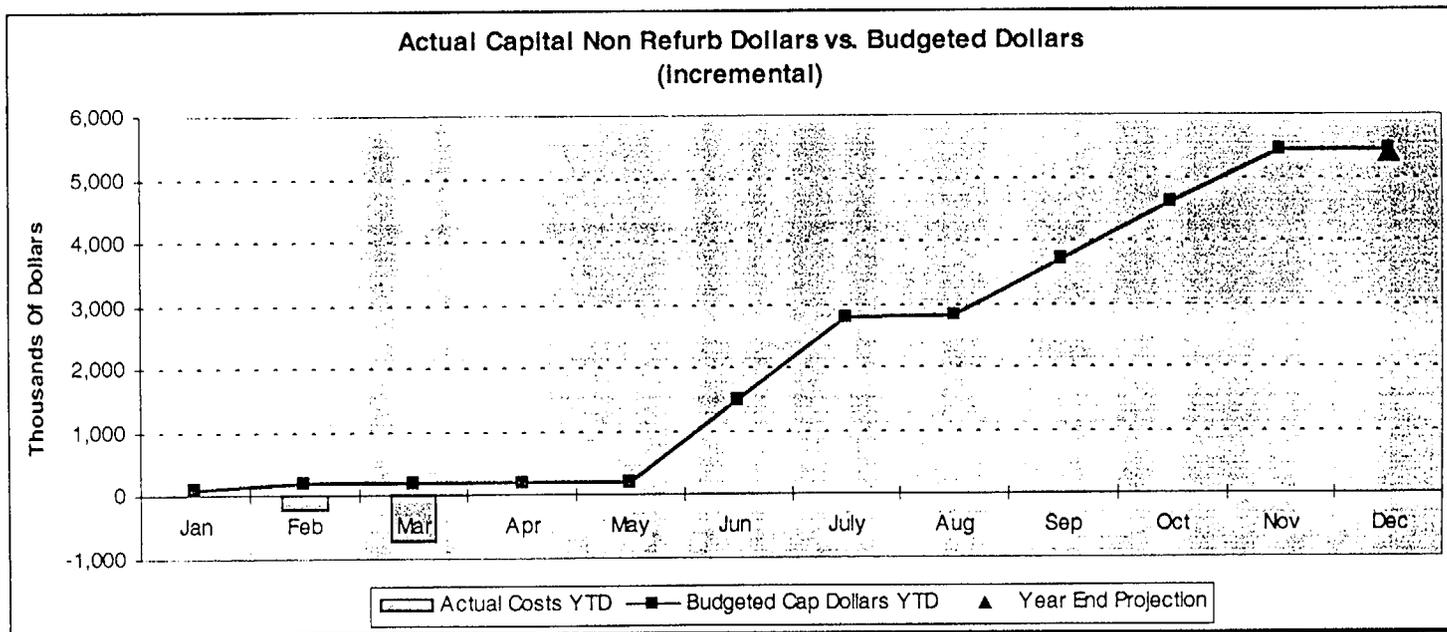
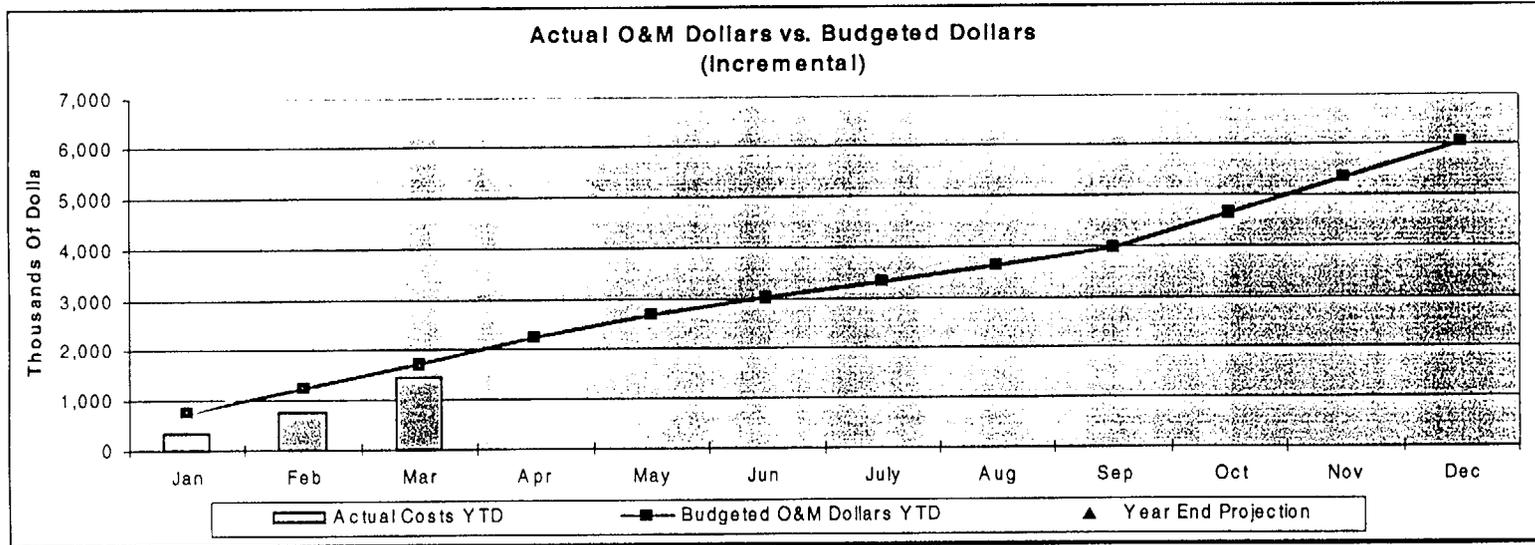
## MODIFICATION EFFECTIVENESS - WORK MANAGEMENT

### Modifications Implemented vs Planned



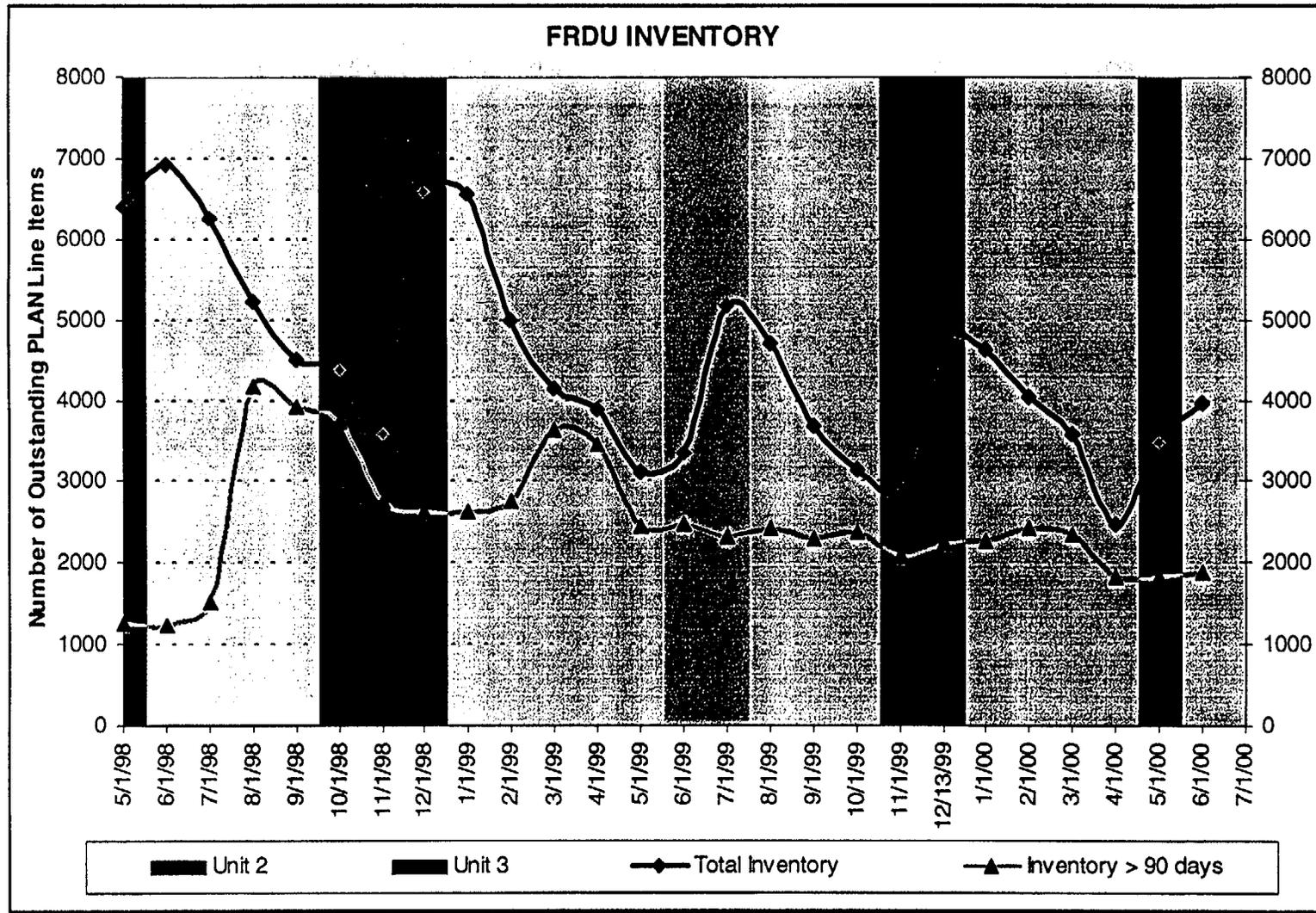
# Competitive Positioning

## MODIFICATION EFFECTIVENESS - COST



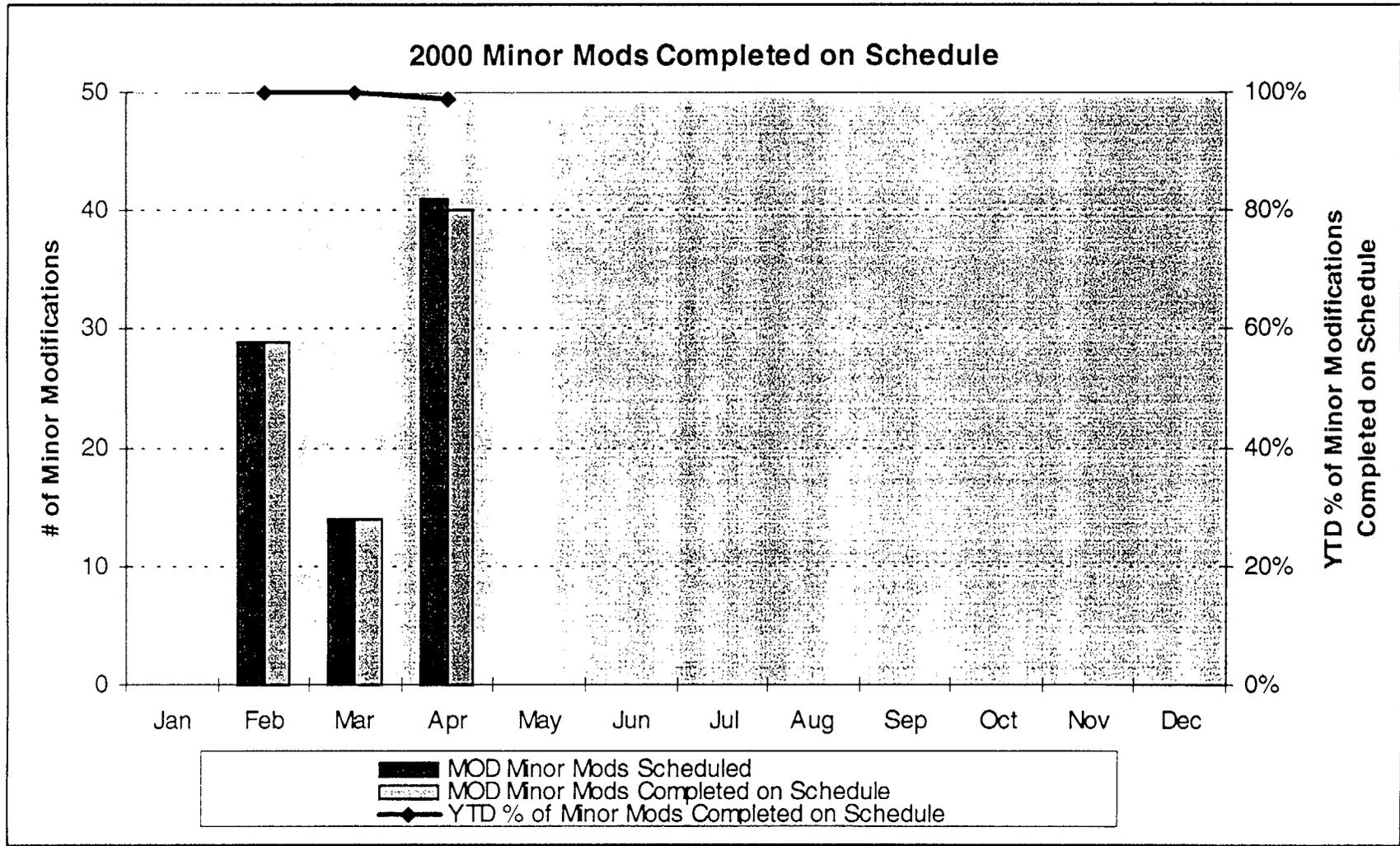
# Competitive Positioning

## MODIFICATION EFFECTIVENESS CONFIGURATION MANAGEMENT



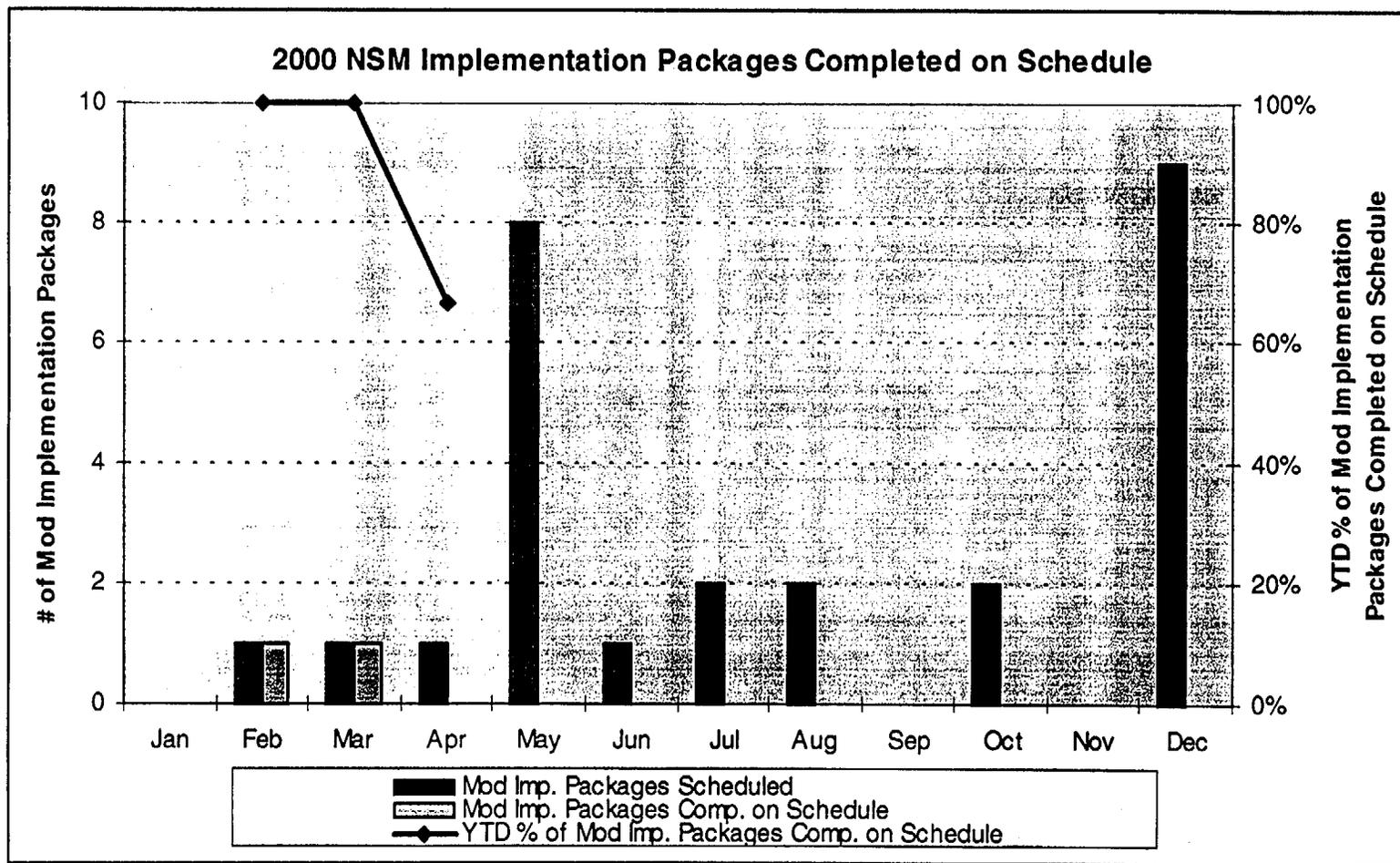
# Competitive Positioning

## MODIFICATION EFFECTIVENESS - WORK MANAGEMENT



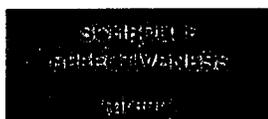
## Competitive Positioning

# MODIFICATION EFFECTIVENESS - WORK MANAGEMENT

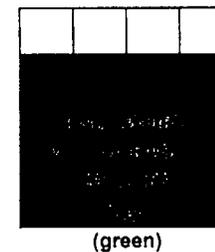
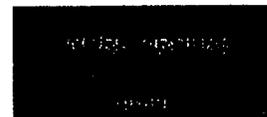
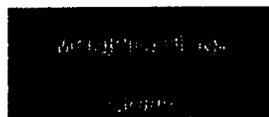


# Competitive Positioning ENGINEERING WORK MANAGEMENT

for period ending: April 2000



**PIPs**  
**(yellow)**



<b>Schedule Effectiveness</b>				
CRITERIA	GREEN (2 pts)	YELLOW (1 pt)	RED (0 pts)	MONTH ACTUAL
Measures on Target	2	1	0	2

MEASURE	CRITERIA	ACTUAL	ON/OFF	YTD
Weekly Avg. Schedule Effectiveness	>= 90%	94%	ON	94%
Weekly Avg. Engr. Support Program (ESP) Health	>= 90%	91%	ON	89%

<b>Modifications</b>				
CRITERIA	GREEN (2 pts)	YELLOW (1 pt)	RED (0 pts)	MONTH ACTUAL
Measures on Target	2	1	0	2

MEASURE	CRITERIA	ACTUAL	ON/OFF	YTD ****
% NSM's Meeting WO's Active Milestone	>= 90%	n/a ***	ON	13%
% MM to WC Milestone	>= 90%	98%	ON	55%

\*\*\* No outage NSM WO's scheduled to be activated this month

\*\*\*\* Percentage of Mods complete for the work window (i.e., 1EOC19)

<b>PIPs</b>				
CRITERIA	GREEN (2 pts)	YELLOW (1 pt)	RED (0 pts)	MONTH ACTUAL
	All ≥ Meets or 2 Exceeds w/1 Needs	Any other combination	≥ 2 Needs	1

MEASURE	EXCEEDS	MEETS	NEEDS	ACTUAL
Problem Evaluation > 30 Days 12 month rolling average	< 6	6 - 8	> 8	7.90
Corrective Actions > 6 months * 12 month rolling average	Plan Meets Goal and Actual < Goal	Plan Meets Goals and Actual No	Plan Does Not Meet Goal or	Needs
Mgmt Exception Corrective Actions 12 month rolling average	Plan Meets Goal and Actual < Goal	Plan Meets Goals and Actual No	Plan Does Not Meet Goal or	Meets

\* Excludes PIPs with Management Exception

<b>Work Orders</b>				
CRITERIA	GREEN (2 pts)	YELLOW (1 pt)	RED (0 pts)	MONTH ACTUAL
Measures on Target	2	1	0	2

MEASURE	CRITERIA	ACTUAL	ON/OFF
Eng. Hold WO's > 30 Days (Innage/Corrective Only)	<= 25	15	ON
Eng. Rescheduled WO Tasks **	<= 2 / mo	2	ON

\*\* Rescheduled for T-2 Schedule due to Engineering

**SUCCESS CRITERIA:**

GREEN: ≥ 3 Green and ≤ 1 Red Windows

YELLOW: Any other combination