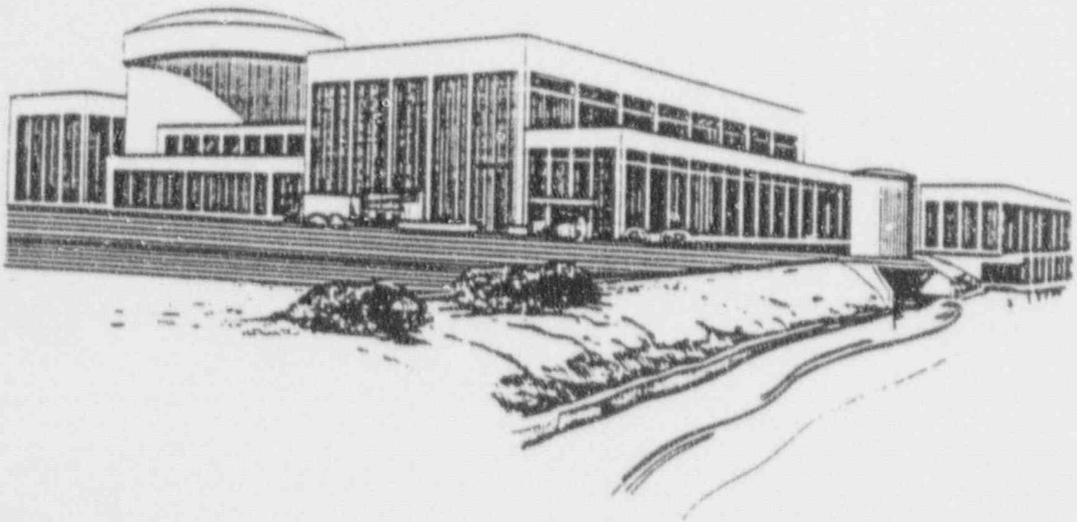
FORT CALHOUN STATION
PERFORMANCE INDICATORS

JANUARY 1992



Prepared by:

Production Engineering Division
System Engineering
Test and Performance Group

Pursuit of excellence is an attitude...
it involves wisdom and sound judgment...
it is a lifetime, career-long commitment...
it is a way of life...it is doing the job
right the first time, every time. It is
inner-directed, not the result of external
pressure, it is our own self worth-who
we are and the pride and satisfaction
that comes from being the right kind of
person, not just in doing the right things.

James J. O'Connor

OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN STATION
PERFORMANCE INDICATOR REPORT

Prepared By:
Production Engineering Division
System Engineering
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JANUARY 1992

ABSTRACT

PURPOSE

The "Performance Indicators Program" is intended to provide selected Fort Calhoun plant performance information to OPPD's personnel responsible for optimizing unit performance. The information is presented in a way that provides ready identification of trends and a means to track progress toward reaching corporate goals. The information can be used for assessing and monitoring Fort Calhoun's plant performance, with emphasis on safety and reliability. Some performance indicators show company goals or industry information. This information can be used for comparison or as a means of promoting pride and motivation.

SCOPE

The conditions, goals, and projections reflected within this report are current as of the end of the month being reported, unless otherwise stated.

In order for the Performance Indicator Program to be effective, the following guidelines were followed while implementing the program:

1) Data was selected which most effectively monitors Fort Calhoun's performance in key areas.

2) Established corporate goals and industry information were included for comparison.

3) Formal definitions were developed for each performance parameter to ensure consistency in future reports and allow comparison with industry averages where appropriate.

Comments and input are encouraged to ensure that this program is tailored to address the areas which are most meaningful to the people using the report. Please refer comments to the System Engineering Department's Test and Performance Group. To increase personnel awareness of Fort Calhoun Station's plant performance, it is suggested that this report be distributed throughout your respective departments.

REFERENCES

INPO Good Practices OA-102, "Performance Monitoring - Management Information"

INPO Report Dated November 1984, "Nuclear Power Plant Operational Data"

NUMARC 87-00, "Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Black-out at Light Water Reactors", Revision 1, Appendix D, "EDG Reliability Program", dated April 6, 1990.

Table of Contents/Summary

INPO INDUSTRY KEY PARAMETERS

	INDUSTRY MEDIAN	OPPD GOAL	OPPD THIS MONTH	OPPD LAST MONTH	TREND	PAGE
UNPLANNED AUTOMATIC REACTOR SCRAMS WHILE CRITICAL	1.7	0	0	0	I	3
SAFETY SYSTEM PERFORMANCE:						
HIGH PRESSURE SAFETY INJECTION SYSTEM	0.008	0.008	0.005	NA	NA	6
AUXILIARY FEEDWATER SYSTEM	0.014	0.01	0.0005	NA	NA	7
EMERGENCY AC POWER SYSTEM	0.017	0.24	0	NA	NA	8
THERMAL PERFORMANCE	99%	99.3%	99.2%	NA	NA	10
UNIT CAPABILITY FACTOR	73.3%	69.2	100%	100%	I	12
UNPLANNED CAPABILITY LOSS FACTOR	8.9%	4.5%	0%	NA	NA	13
FUEL RELIABILITY INDICATOR	1.6	0.75	3.03	3.66	NMA	14
COLLECTIVE RADIATION EXPOSURE (CUMULATIVE)	277/YR	250/YR	3.97	NA	NA	15
VOLUME OF LOW-LEVEL SOLID RADIOACTIVE WASTE (cubic ft.)	4,060/YR	3,000/YR	0	NA	NA	16
INDUSTRIAL SAFETY ACCIDENT RATE/DISABLING INJURY/ILLNESS FREQUENCY RATE	0.72	0.3	0	0.37	I	17
CHEMISTRY INDEX/SECONDARY SYSTEM CHEMISTRY	0.34	0.45	0.464	0.463	NMA	44

OPERATIONS

	INDUSTRY MEDIAN	OPPD GOAL	OPPD THIS MONTH	OPPD LAST MONTH	TREND	PAGE
STATION NET GENERATION (10,000 Mwh)	NA	NA	30.7	36.2	NA	1
FORCED OUTAGE RATE	NA	4.5%	7.1%	9.28%	NMA	2
UNPLANNED AUTOMATIC REACTOR SCRAMS WHILE CRITICAL	1.7	0	0	0	I	3
UNPLANNED SAFETY SYSTEM ACTUATIONS - (INPO DEFINITION)	0	0	0	0	I	4
UNPLANNED SAFETY SYSTEM ACTUATIONS - (NRC DEFINITION)	0	0	0	0	I	5
GROSS HEAT RATE	NA	NA	10,117	10,023	I	9
EQUIVALENT AVAILABILITY FACTOR	NA	NA	83%	100%	D	11
UNIT CAPABILITY FACTOR	73.3%	69.2%	100%	100%	I	12
UNPLANNED CAPABILITY LOSS FACTOR	8.9%	4.5%	0%	NA	NA	13
FUEL RELIABILITY INDICATOR	1.6	0.75	3.03	3.66	NMA	14

OPERATIONS (cont'd)

MAINTENANCE

MAINTENANCE (cont'd))

	INDUSTRY MEDIAN	OPPD GOAL	OPPD THIS MONTH	OPPD LAST MONTH	TREND	PAGE
PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES (MECHANICAL MAINTENANCE)	NA	80%	NA	NA	NA	37
PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES (INSTRUMENTATION & CONTROL)	NA	80%	NA	NA	NA	38
NUMBER OF MISSED SURVEILLANCE TESTS RESULTING IN LICENSEE EVENT REPORTS	NA	NA	0	0	I	39
NUMBER OF NUCLEAR PLANT RELIABILITY DATA SYSTEMS (NPRDS) REPORTABLE FAILURES	10/mo	NA	0	0	NA	40
NUMBER OF NPRDS MULTIPLE FAILURES	NA	NA	NA	NA	NA	41
MAINTENANCE EFFECTIVENESS	NA	NA	NA	NA	NA	42
CHECK VALVE FAILURE RATE	NA	2.00E-6	6.07E-7	6.07E-7	NA	43

CHEMISTRY AND RADIOLOGICAL PROTECTION

	INDUSTRY MEDIAN	OPPD GOAL	O2PD THIS MONTH	O2PD LAST MONTH	TREND	PAGE
COLLECTIVE RADIATION EXPOSURE (CUMULATIVE)	277/YR	250 /YR	3.97	NA	NA	15
VOLUME OF LOW-LEVEL SOLID RADIOACTIVE WASTE	4,060/YR	3,000/YR	0	NA	NA	16
SECONDARY SYSTEM CHEMISTRY	0.34	r 15	0.464	0.463	NMA	44
PRIMARY SYSTEM CHEMISTRY PERCENT OF HOURS OUT OF LIMIT	NA	2%	0%	0%	I	45
AUXILIARY SYSTEM (CCW) CHEMISTRY PERCENT OF HOURS OUTSIDE STATION LIMITS	NA	2%	0	0	I	46
IN-LINE CHEMISTRY INSTRUMENTS OUT-OF-SERVICE	NA	5	15	17	NMA	47
HAZARDOUS WASTE PRODUCED	NA	NA	0	154.5	I	48
MAXIMUM INDIVIDUAL RADIATION EXPOSURE (mRem)	NA	1,500/YR	416	NA	NA	49
TOTAL SKIN AND CLOTHING CONTAMINATIONS	NA	144	5	NA	NA	50
DECONTAMINATED RADIATION CONTROLLED AREA	NA	88%	87.8%	89.9%	D	51

CHEMISTRY AND RADIOLOGICAL PROTECTION (cont'd)

SECURITY

MATERIALS AND OUTSIDE SERVICES

DESIGN ENGINEERING

DESIGN ENGINEERING (cont'd)

INDUSTRIAL SAFETY

HUMAN RESOURCES

TRAINING AND QUALIFICATION

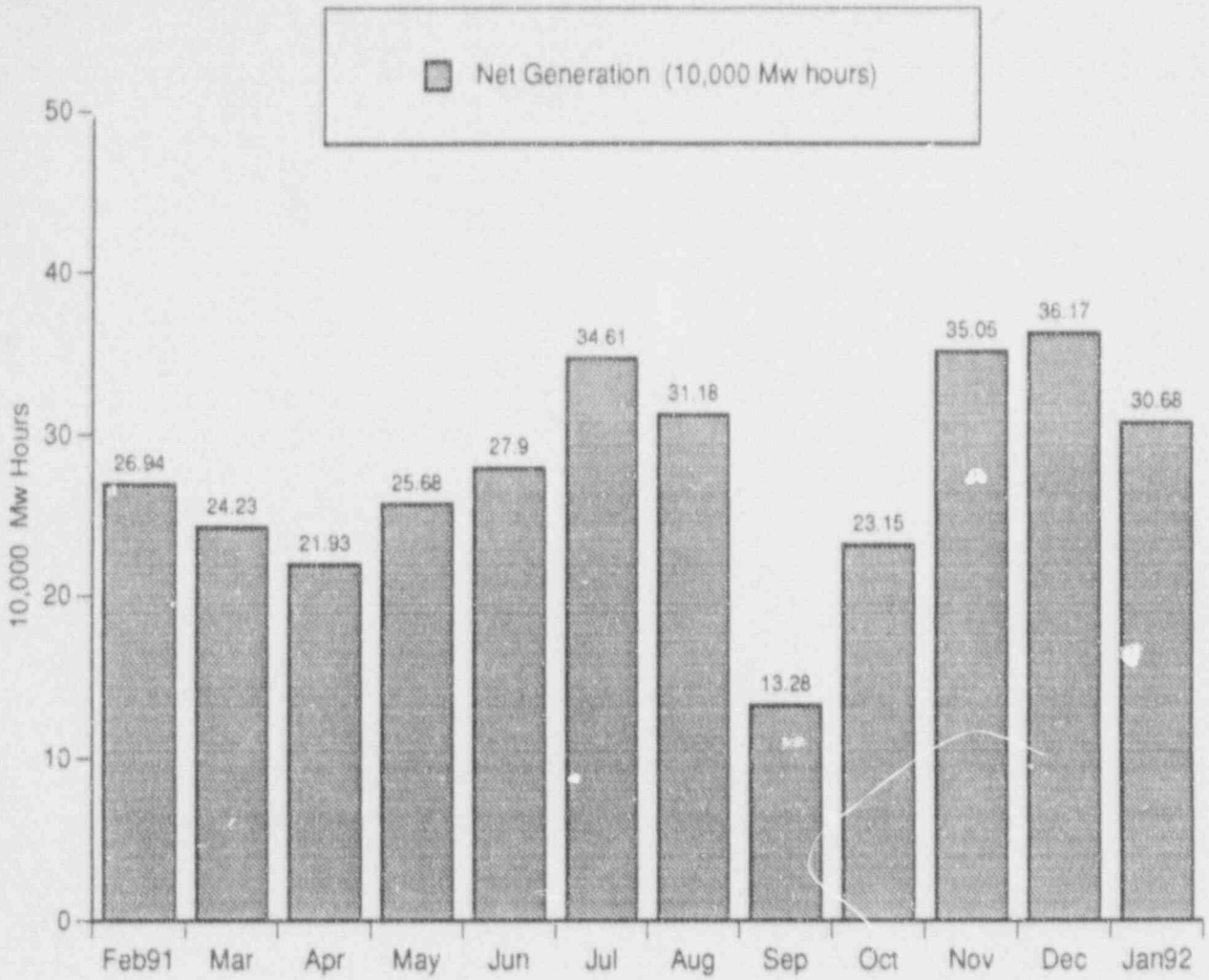
REFUELING OUTAGE

QUALITY ASSURANCE

SUMMARY SECTION

TABLE OF CONTENTS/SUMMARY TREND SYMBOLS

A = ADVERSE TREND
I = IMPROVED PERFORMANCE
D = DECLINING PERFORMANCE
NMA = NEEDS MANAGEMENT ATTENTION
NA = NOT APPLICABLE/AVAILABLE



STATION NET GENERATION

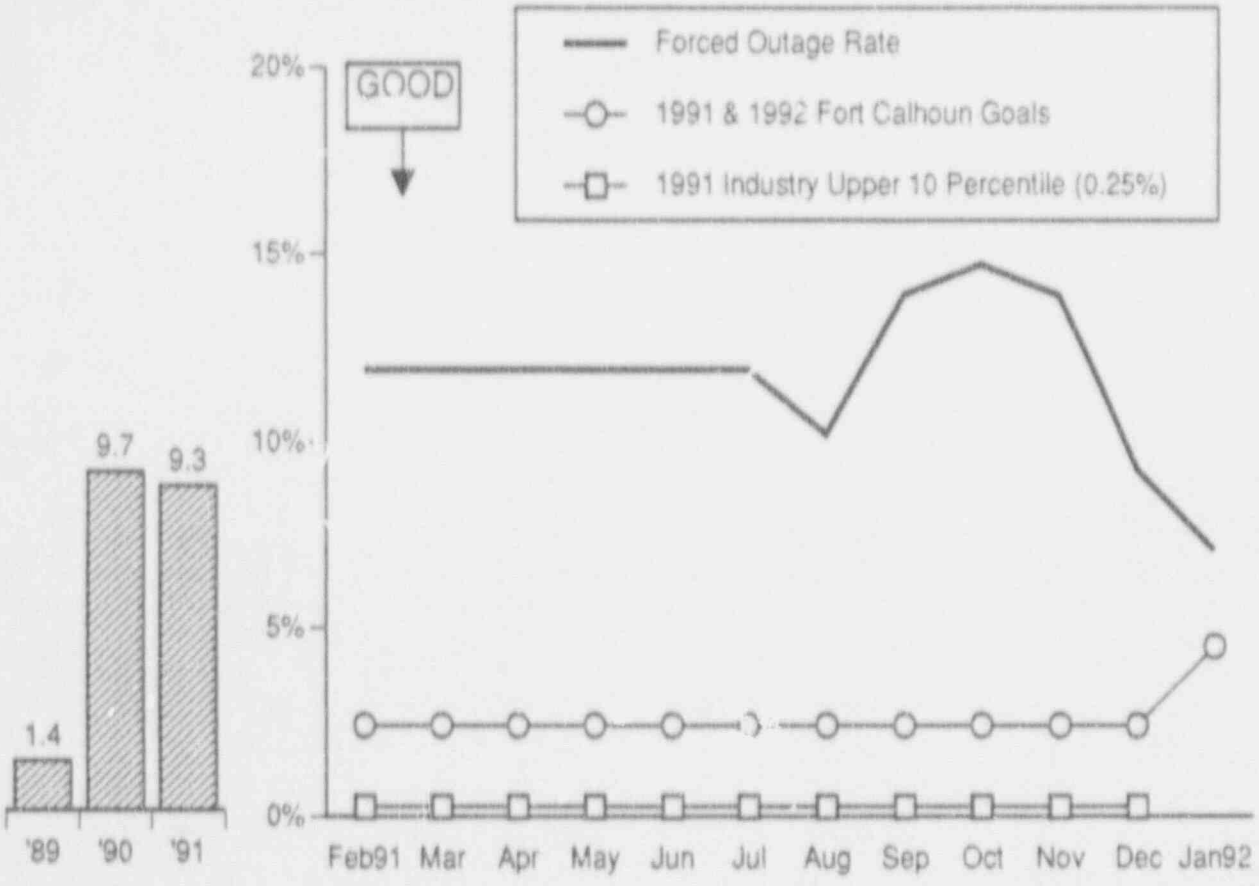
This indicator shows the net generation of the Fort Calhoun Station for the reporting month.

During the month of January 1992, a net total of 306,777 MWH was generated by the Fort Calhoun Station. The low net generation for the months of September and October 1991 is due to the following three forced outages: 1) the station batteries replacement outage from 9/12/91 at 2100 hours through 10/6/91 at 1114 hours; 2) a steam leak on the drain line from a turbine control valve was repaired from 10/18/91 at 0307 hours to 10/19/91 at 1116 hours; and 3) a steam leak repair on a test pipe on the high pressure turbine shell from 10/25/91 at 2204 to 10/26/91 at 0810.

Data Source: Station Generation Report

Accountability: Patterson

Adverse Trend: None



FORCED OUTAGE RATE

The forced outage rate was reported as 7.1% for the time period from 2/1/91 to 1/31/92.

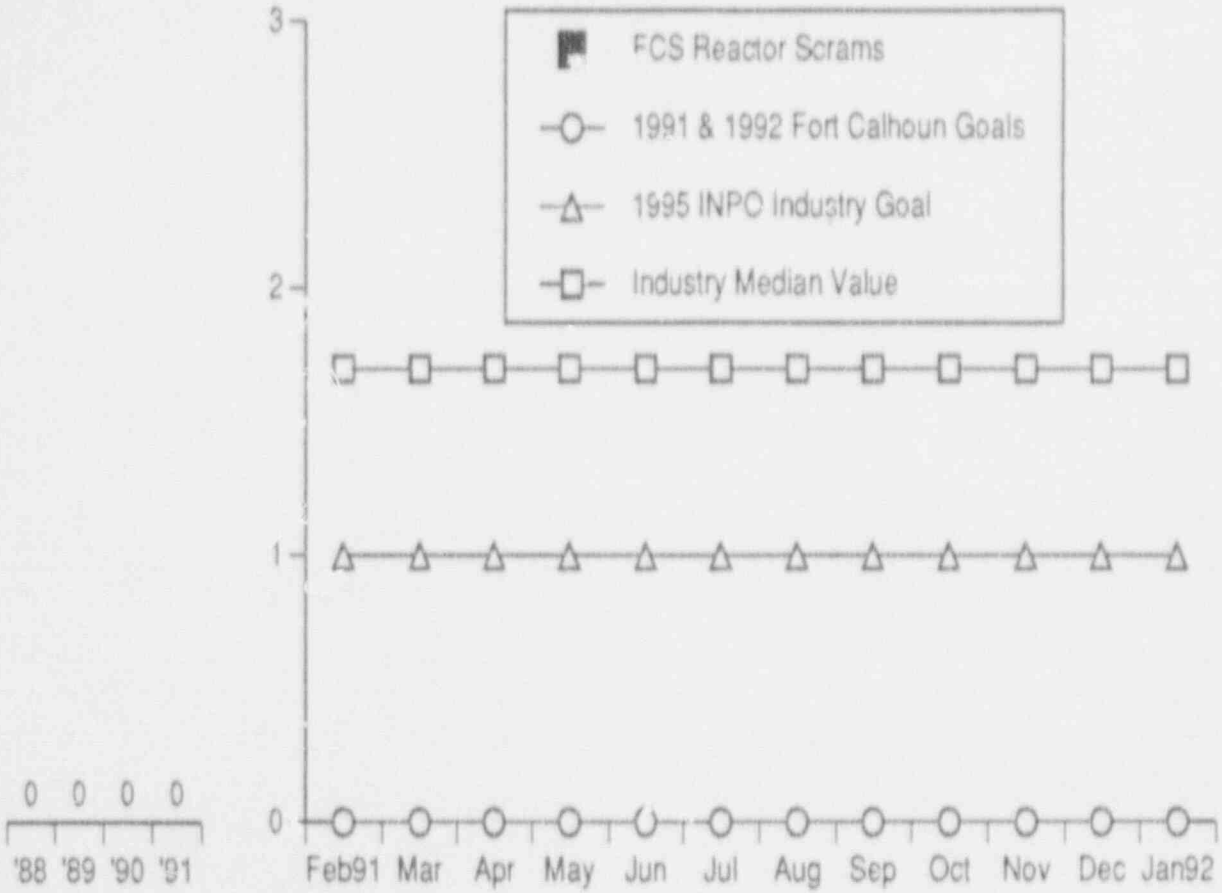
A forced outage occurred during the months of September and October 1991 when the station batteries were declared inoperable. The generator was taken off line on 9/12/91 and remained off line until 10/6 /91.

The generator was taken off line on October 18 & 19 due to a steam leak on a turbine control valve before seat drain line. The generator was again taken off line on October 25 & 26 due to a steam leak from an instrument tap on the high pressure turbine.

A forced outage occurred during the month of August 1991 to replace a failed potential transformer (PT). This PT converted 345 KV to 120V for use in the breaker synchronization circuit.

The 1992 Fort Calhoun goal for Forced Outage Rate is 4.5%. The 1991 goal was 2.4%.

Data Source: Monthly Operations Report & NERC GAD Forms
Accountability: Patterson
Adverse Trend: None



UNPLANNED AUTOMATIC REACTOR SCRAMS WHILE CRITICAL

There were no unplanned automatic reactor scrams in January 1992. The last unplanned automatic reactor scram occurred on July 2, 1986.

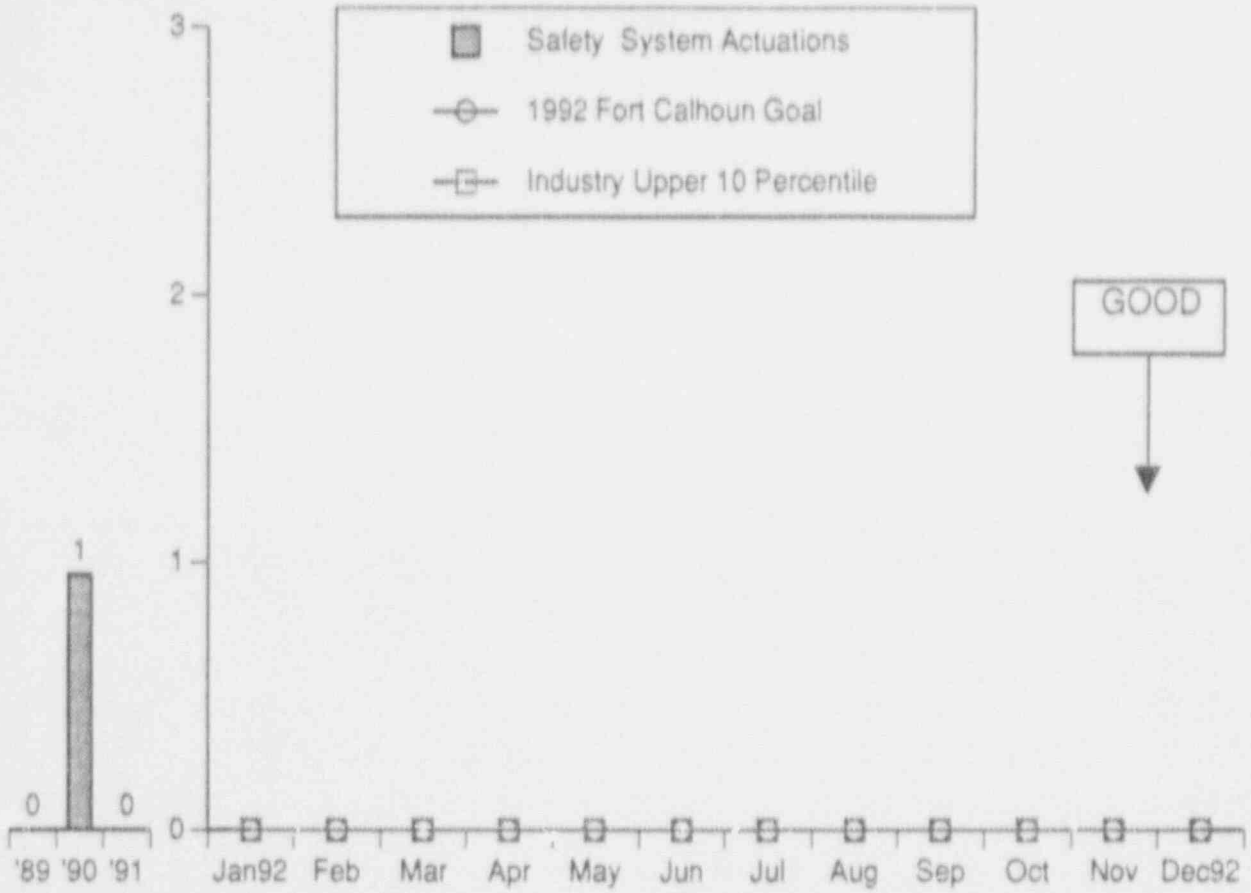
The 1992 goal for unplanned automatic reactor scrams while critical has been set at zero. The 1995 INPO industry goal is one per 7,000 hours critical.

The industry median value is 1.7 scrams per 7,000 hours critical.

Data Source: Monthly Operations Report & Plant Licensee Event Reports (LERs)

Accountability: Patterson

Adverse Trend: None



UNPLANNED SAFETY SYSTEM ACTUATIONS - (INPO DEFINITION)

There were no unplanned safety system actuations during the month of January 1992.

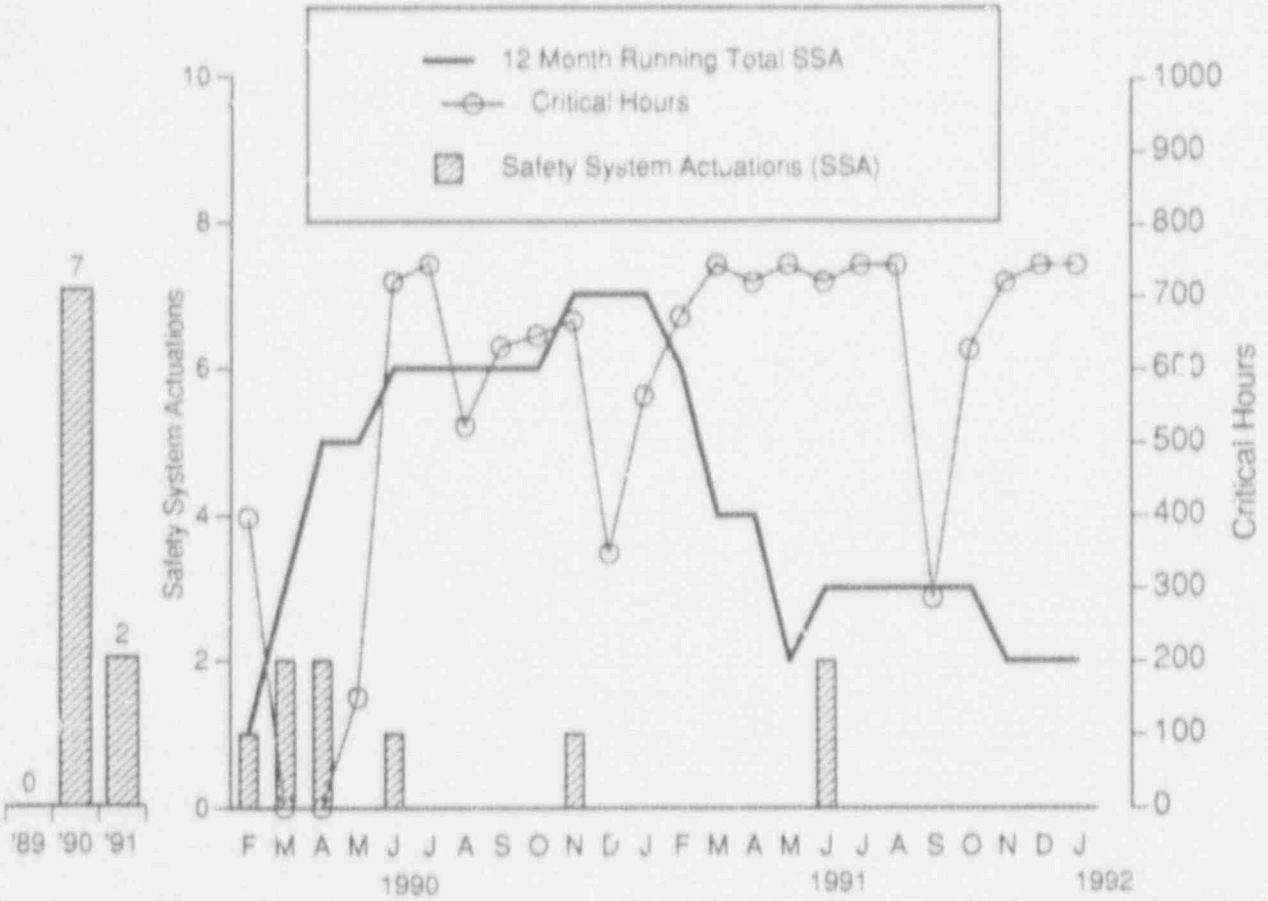
The 1992 goal for the number of unplanned safety system actuations is zero.

The industry upper ten percentile value for the number of unplanned safety system actuations per year is zero. The Fort Calhoun Station is currently performing in the upper ten percentile of nuclear power plants for this indicator.

Data Source: Monthly Operations Report & Plant Licensee Event Reports (LERs)

Accountability: Jaworski/Foley/Ronning

Adverse Trend: None



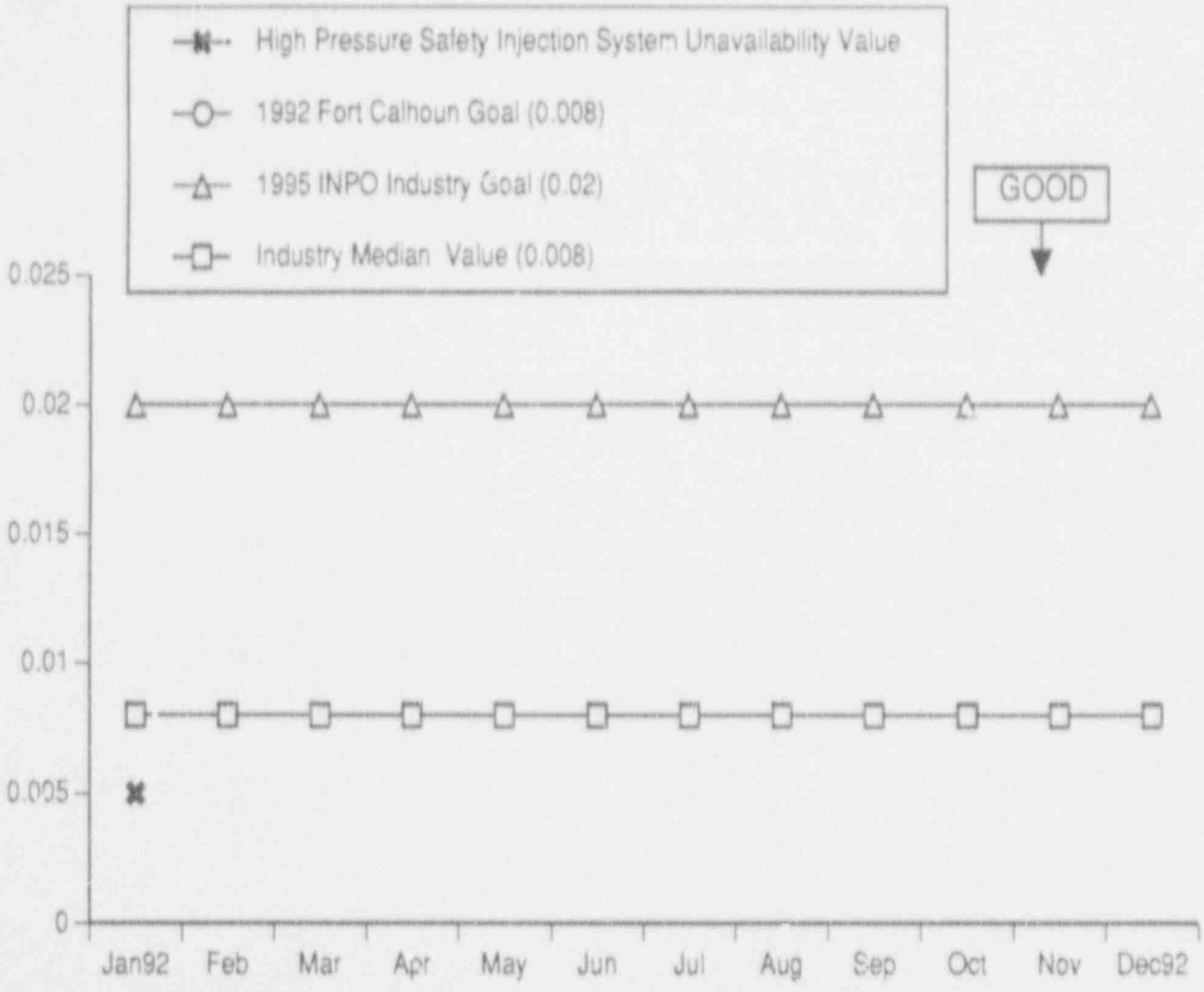
UNPLANNED SAFETY SYSTEM ACTUATIONS - (NRC DEFINITION)

This indicator shows the number of unplanned safety system actuations (SSAs) which include the High and Low Pressure Safety Injection Systems, the Safety Injection Tanks, and the Emergency Diesel Generators. The NRC classification of SSAs includes actuations when major equipment is operated and when the logic systems for these safety systems are challenged.

The last event of this type occurred in June 1991 when there were two anticipatory signal starts for DG-2. The first start occurred after a control relay was bumped causing a momentary loss of power to safety bus 1A4. DG-2 started a second time when a breaker trip occurred during DG-1 breaker synchronization. DG-2 was not required to provide power to the safety bus in either of these situations.

The majority of SSAs displayed above were related to 1990 Refueling Outage activities and are currently being reviewed under the Safety System Actuation Reduction Program. The goal of the Program is to reduce the number of SSAs at Fort Calhoun. The 1992 Fort Calhoun goal for this indicator is a maximum of three.

Data Source: Monthly Operations Report & Plant Licensee Event Reports (LERs)
Accountability: Jaworski/Foley/Ronning
Adverse Trend: None



HIGH PRESSURE SAFETY INJECTION SYSTEM
SAFETY SYSTEM PERFORMANCE

This indicator shows the High Pressure Safety Injection System value, as defined by INPO in the Safety System Performance Indicator Definitions, for the reporting month.

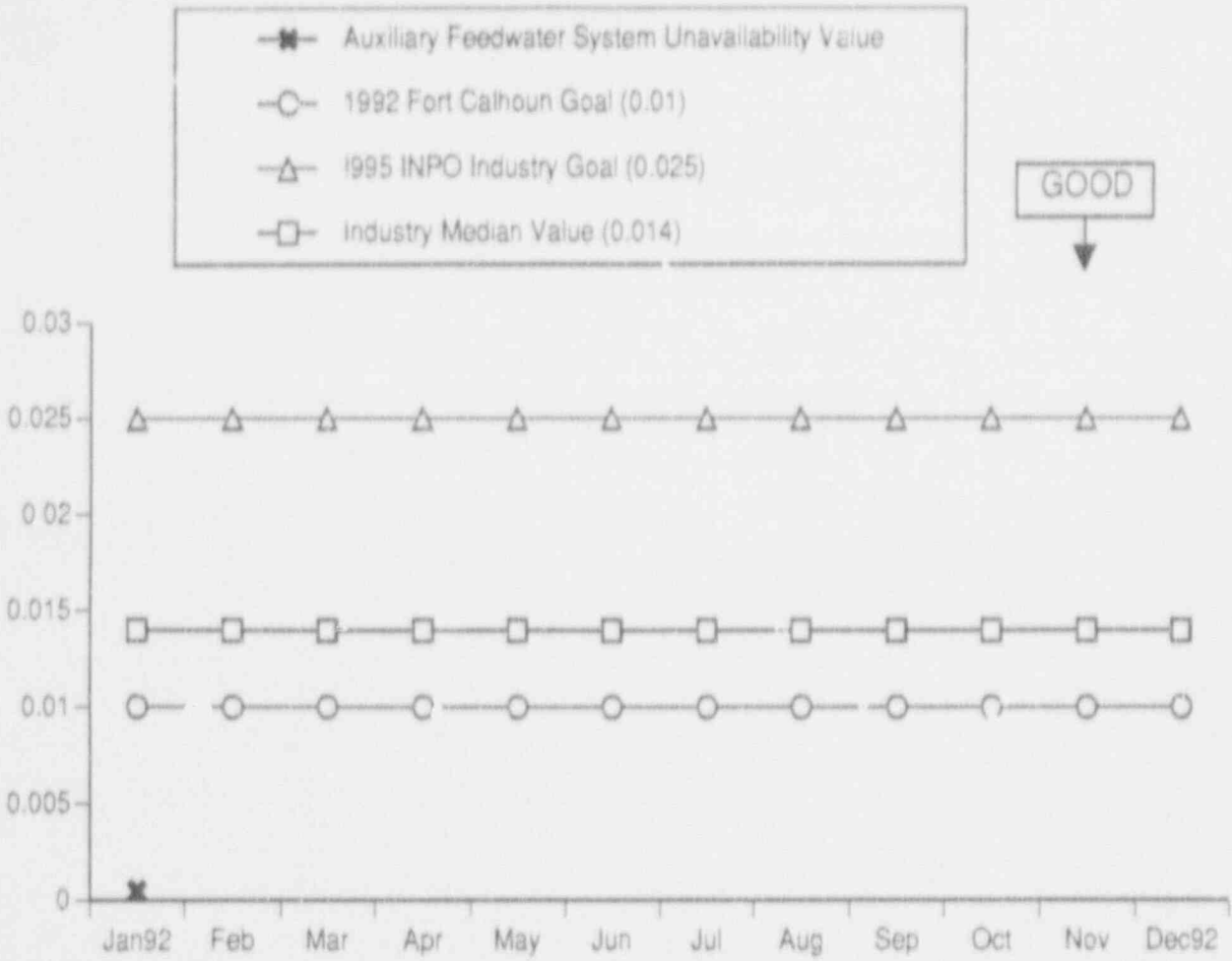
The High Pressure Safety Injection System value for January 1992 was 0.005. There were 11.1 hours of planned unavailability for surveillance tests and PMOs in January.

The 1992 Fort Calhoun goal for this indicator is 0.008. The 1995 INPO industry goal is 0.02 and the industry median value (for the three year period from 7/88 through 6/91) is 0.008.

Data Source: Jaworski/Schaffer

Accountability: Jaworski/Schaffer

Adverse Trend: None



AUXILIARY FEEDWATER SYSTEM
SAFETY SYSTEM PERFORMANCE

This indicator shows the Auxiliary Feedwater System value, as defined by INPO in the Safety System Performance Indicator Definitions, for the reporting month.

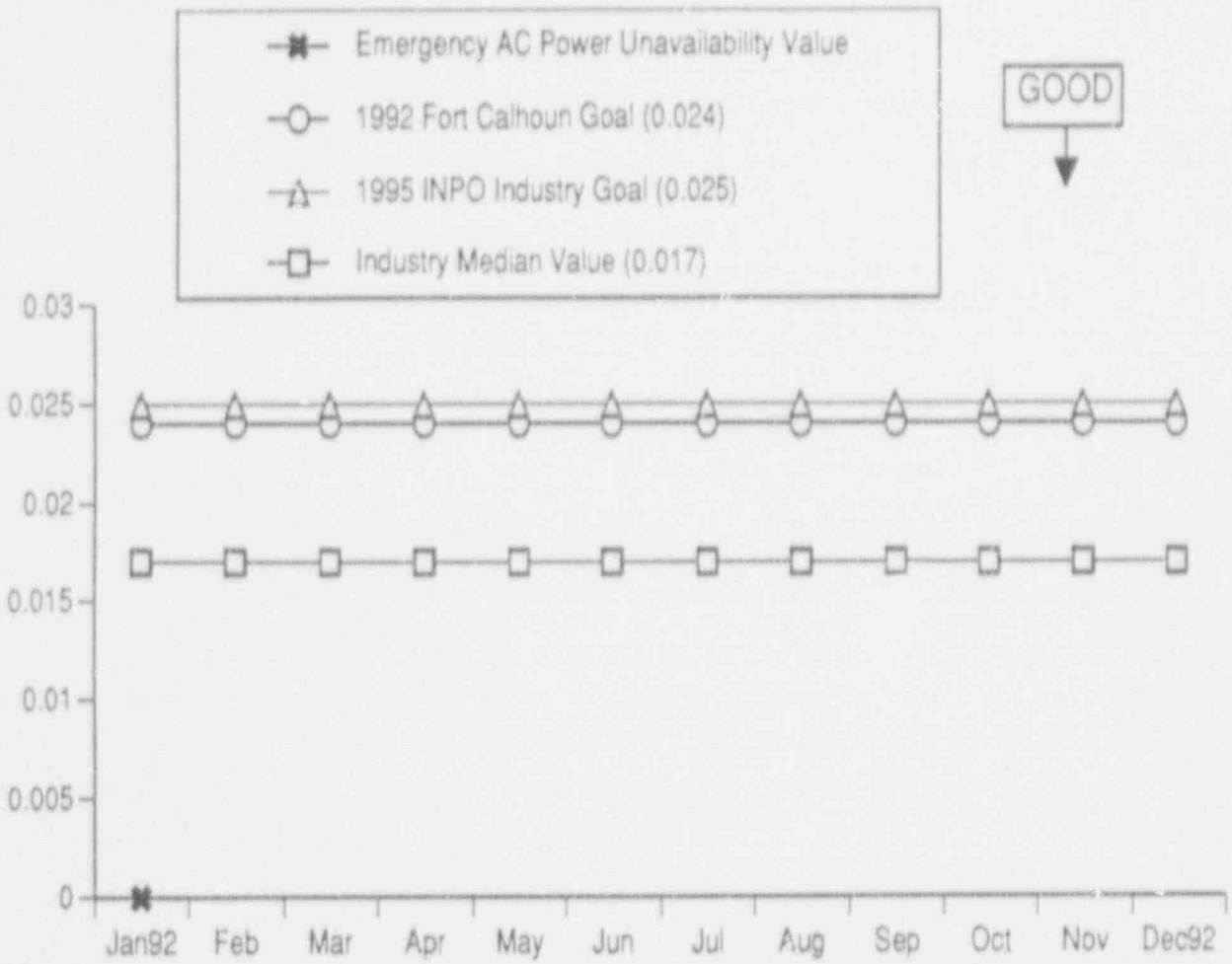
The Auxiliary Feedwater System Value for January 1992 was 0.0005.

The 1992 Fort Calhoun goal for this indicator is 0.01. The 1995 INPO industry goal is 0.025 and the industry median value (for the three year period from 7/88 through 6/91) is 0.014.

Data Source: Jaworski/Hilgenkamp

Accountability: Jaworski/Hilgenkamp

Adverse Trend: None



EMERGENCY AC POWER SYSTEM
SAFETY SYSTEM PERFORMANCE

This indicator shows the Emergency AC Power System value, as defined by INPO in the Safety System Performance Indicator Definitions, for the reporting month.

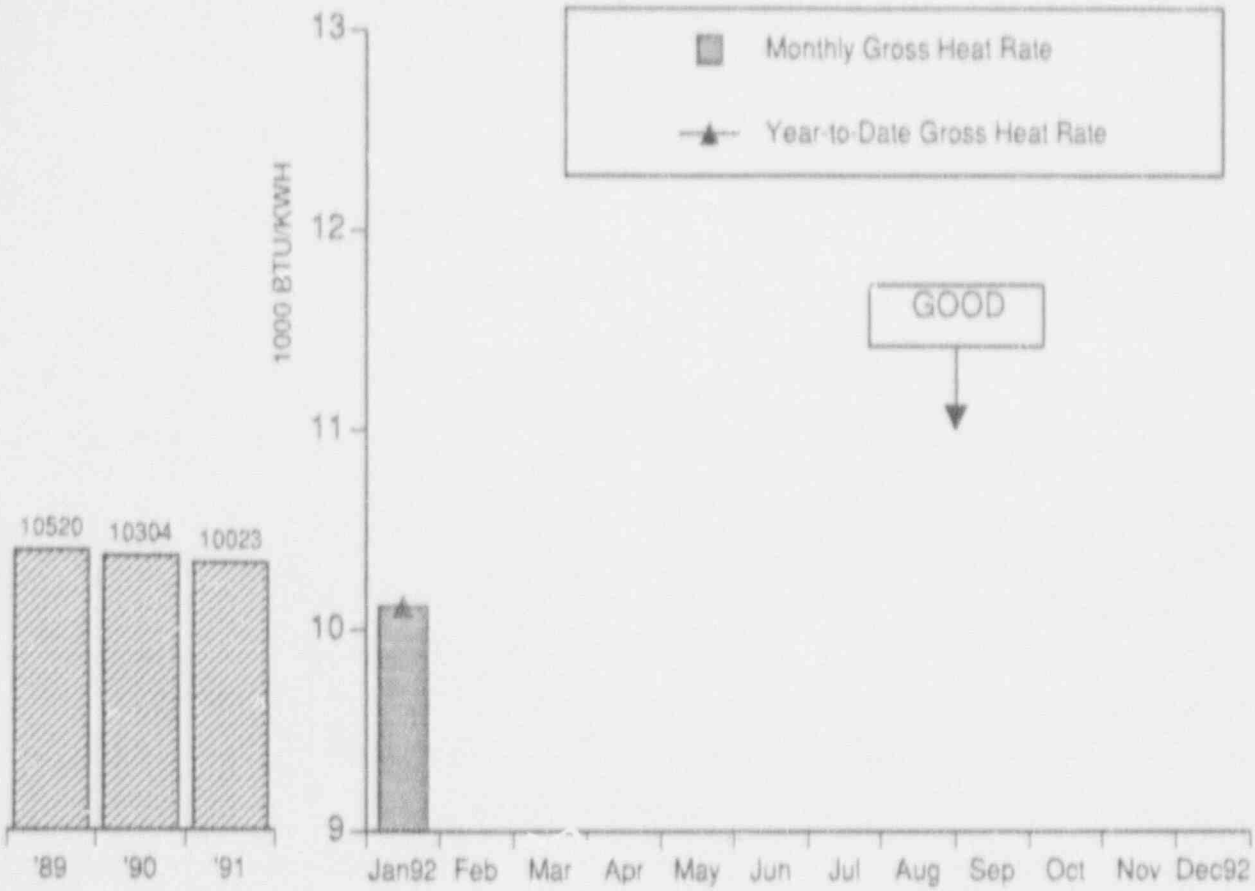
The Emergency AC Power System value for January 1992 is zero.

The 1992 Fort Calhoun goal for this indicator is 0.024. The 1995 INPO industry goal is 0.025 and the industry median value (for the three year period from 7/88 through 6/91) is 0.017.

Data Source: Jaworski/Ronning

Accountability: Jaworski/Ronning

Adverse Trend: None



GROSS HEAT RATE

This indicator shows the Gross Heat Rate (GHR) for the reporting month, the year-to-date value, and the year-end GHR for the previous 3 years.

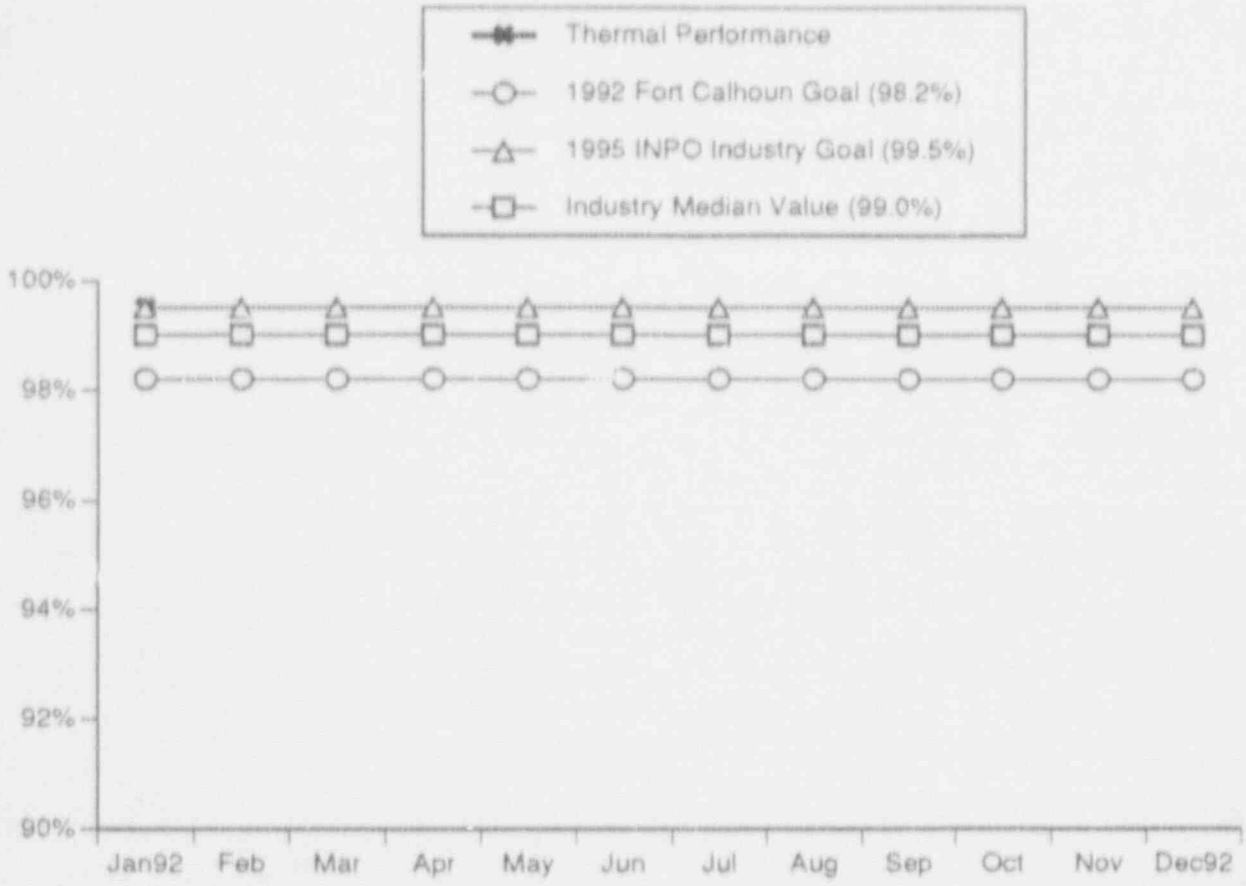
The gross heat rate for the Fort Calhoun Station was reported as 10,117 BTU/KWH during the month of January 1992.

The year-to-date gross heat rate was reported as 10,117 BTU/KWH.

Data Source: Holthaus/Gray (Manager/Source)

Accountability: Jaworski/Popek

Adverse Trends: None



THERMAL PERFORMANCE

This indicator shows the Thermal Performance value for the reporting month, the 1992 Fort Calhoun goal, the 1995 INPO industry goal and the industry median value.

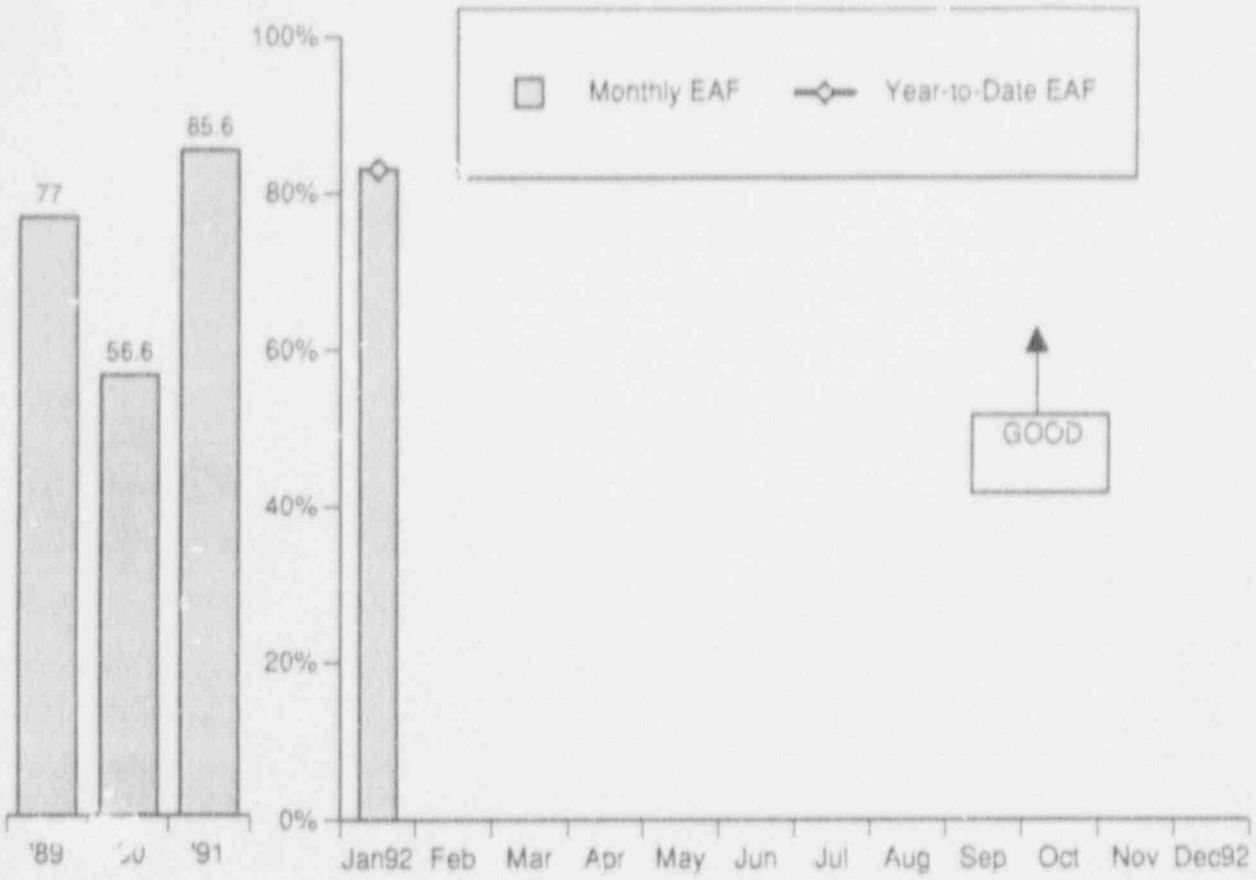
The thermal performance value for the reporting month is 99.2%.

The 1992 Fort Calhoun Goal for this indicator is 99.3%. The 1995 INPO industry goal is 99.5% and the industry median value (for the one year period from 7/90 through 6/91) is 99.0%.

Data Source: Jaworski/Popek

Accountability: Jaworski/Popek

Adverse Trend: None



EQUIVALENT AVAILABILITY FACTOR

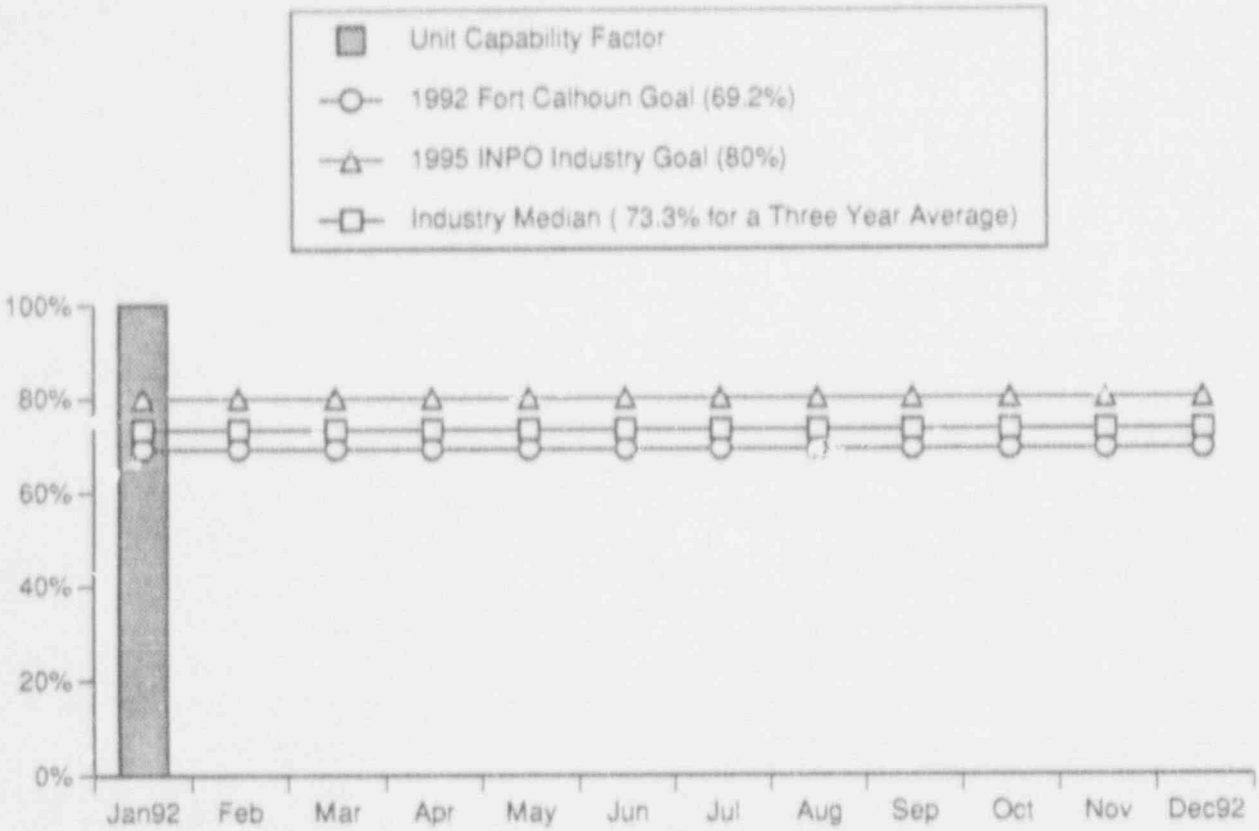
This indicator shows the plant monthly Equivalent Availability Factor (EAF), the year-to-date EAF for 1992, and the EAF for the previous 3 years. The EAF for January 1992 was reported as 83%. This reflects coastdown in preparation for the 1992 refueling outage.

The year-to-date EAF was reported as 83%.

Data Source: Dietz/Parra (Manager/Source)

Accountability: Patterson

Adverse Trend: None



UNIT CAPABILITY FACTOR

This indicator shows the plant monthly Unit Capability (UCF) Factor and the 1995 INPO industry goal.

The UCF was reported as 100% for the month of January 1992. As stated in INPO's November 1991 publication "Detailed Descriptions of International Nuclear Power Plant Performance Indicators and Other Indicators", the energy losses associated with the fuel coastdown prior to the Cycle 14 Refueling Outage are not considered when computing the UCF because they are considered to be under the control of plant management.

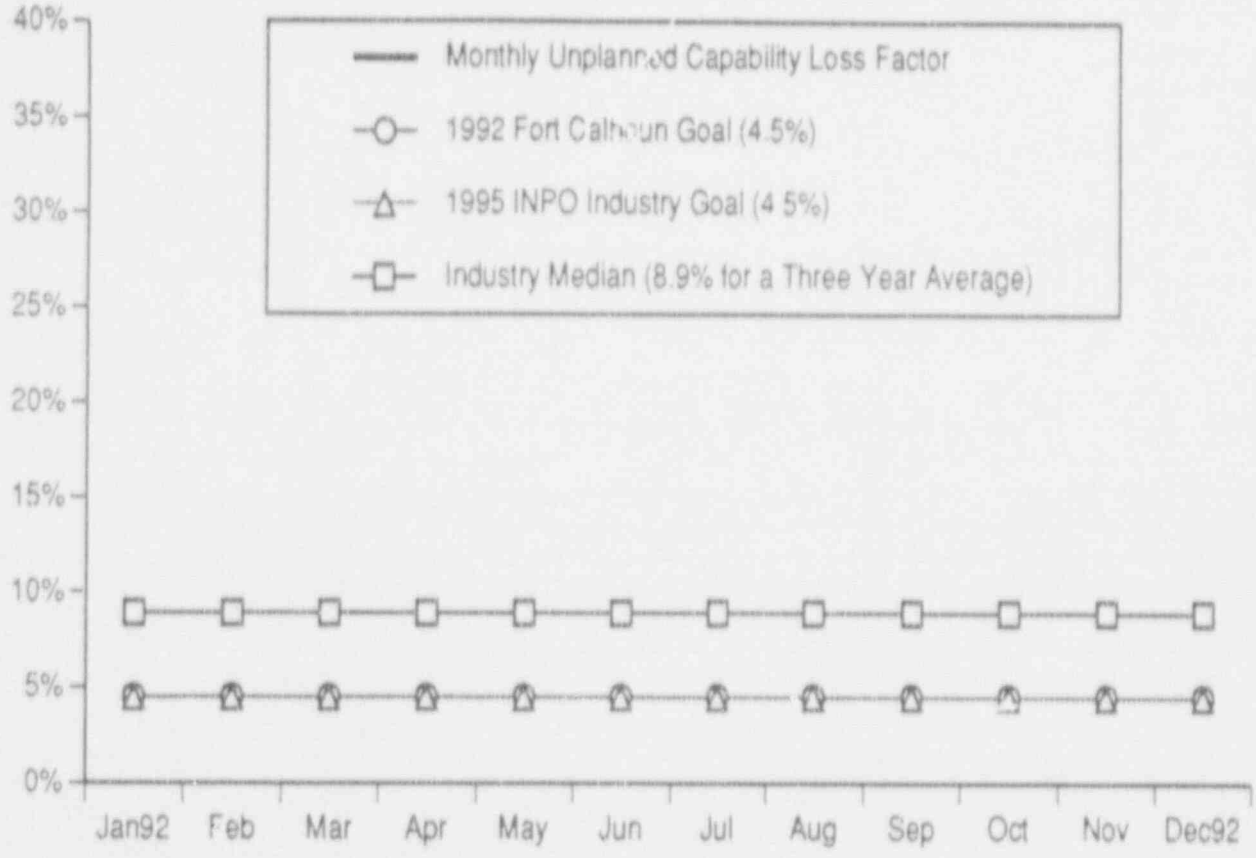
The 1995 INPO industry goal is 80% and the industry median value (for the three year period from 7/88 through 6/91) is 73.3%.

The 1992 Fort Calhoun goal for Unit Capability Factor is 69.2%.

Data Source: Generation Totals Report & Monthly Operating Report

Accountability: Patterson

Adverse Trend: None



UNPLANNED CAPABILITY LOSS FACTOR

This indicator shows the plant monthly Unplanned Capability Loss Factor (UCLF) , the Fort Calhoun UCLF goal for 1992, and the 1995 INPO industry goal.

The UCLF was reported as 0% for the month of January 1992.

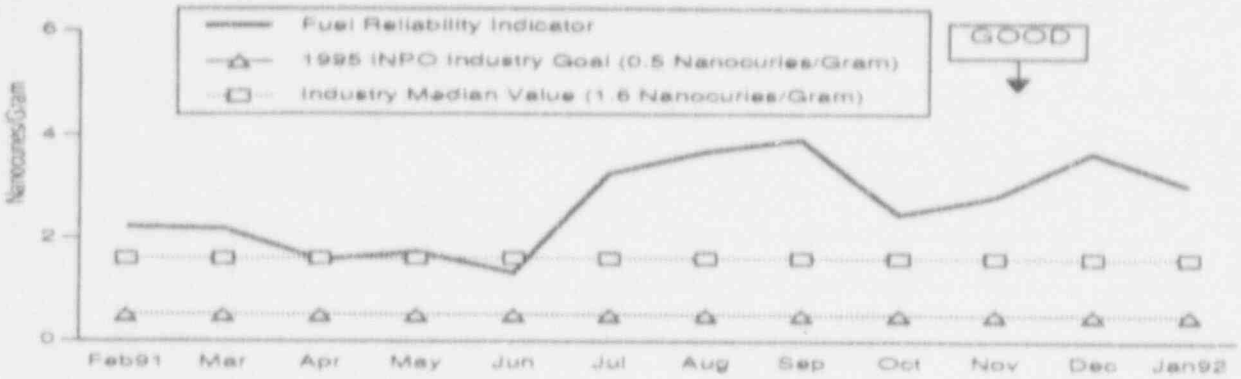
The 1995 INPO industry goal is 4.5% and the industry median value (for the three year period from 7/88 through 6/91) is 8.9%.

The Fort Calhoun goal for Unplanned Capability Loss Factor is 4.5%.

Data Source: Generation Totals Report & Monthly Operating Report

Accountability: Patterson

Adverse Trend: None



FUEL RELIABILITY INDICATOR

The Fuel Reliability Indicator (FRI) was reported as 3.03 nanocuries/gram for the month of January 1992. The plant was in the "coastdown" mode for the end of full power life for the Cycle 13 core.

The January FRI was calculated using the data from January 1 through 17. In accordance with the INPO definition of steady state operation, the plant was at power levels above 85% during this time and the power levels did not vary more than + or - 5% for at least 3 days. Only the iodine concentration values from the days that meet this steady state criteria can be factored into the INPO fuel reliability indicator.

Increasing values for the FRI have been observed approaching the end of Cycle 13. A number of factors contributed to the increase in magnitude of the FRI values.

First, it is normal for FRI values to increase over the life of a fuel cycle because of increasing reactor coolant activity levels. This has been observed through past fuel cycles at FCS, and is an industry trend.

Another factor is administrative in nature, in that the required INPO method for calculating FRI changed.

Thirdly, tramp uranium, I-134, is a product of past fuel failures (Cycles 7 through 9) that has plated on reactor coolant system and vessel internals, and on the fuel itself. Frequent power maneuvering with operation from maximum power levels to much lower power levels or shutdown increased the likelihood of releasing tramp uranium products in the coolant thus increasing activity levels normally associated with failed fuel.

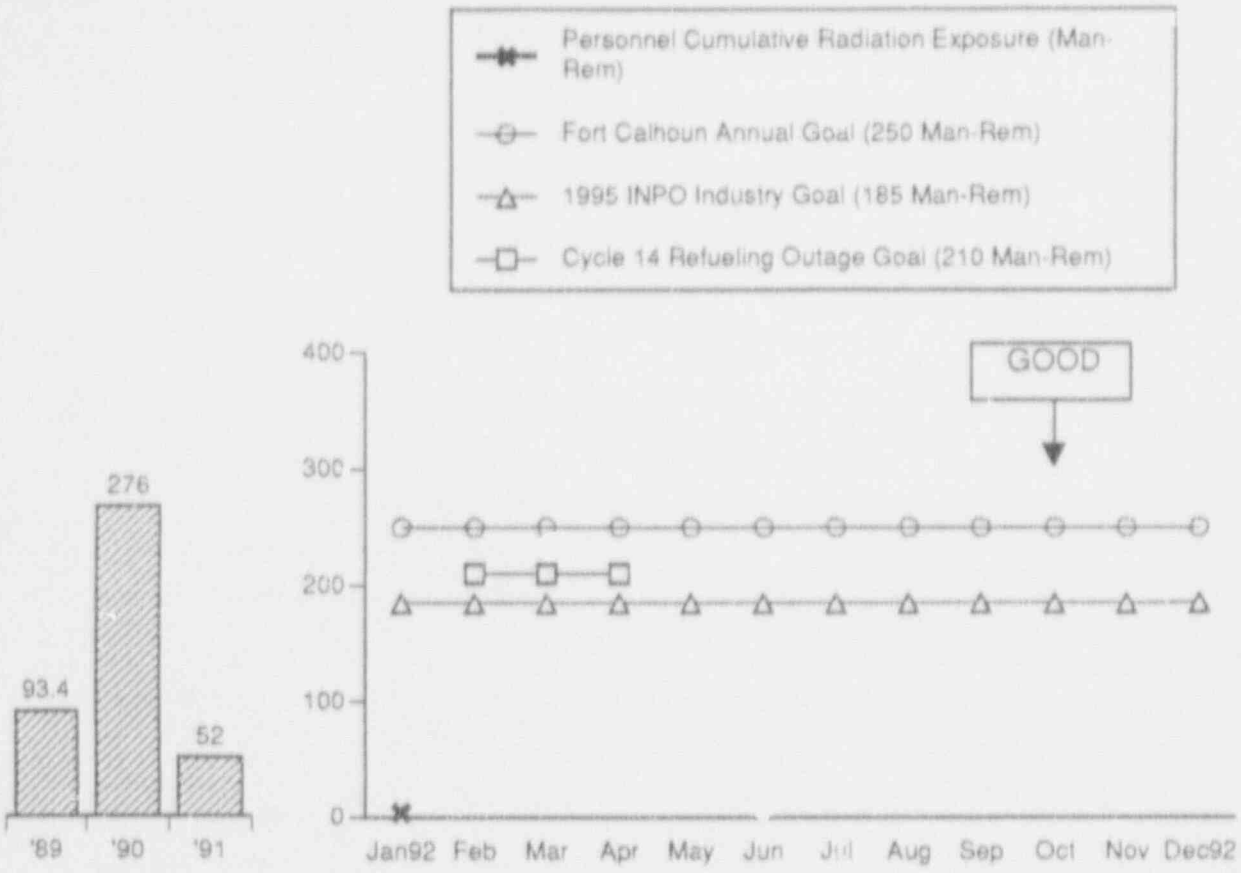
Also, the reported coolant activities, specifically the iodine values, are a direct factor into the FRI calculation. Reactor coolant activity reporting is currently under review for uniformity to the methods used by other utilities.

The last detected fuel failure was during Cycle 10. The FRI values observed during Cycle 10 were in the 20 to 80 nanocurie/gram range (without the density correction factor which would make the FRI values larger). There may have been one observable iodine spike which occurred during shutdown and would be indicative of fuel failure during Cycle 13 operation. An investigation is in progress as to the meaning of this spike.

A Fort Calhoun goal of 0.75 nanocuries/gram will be utilized in 1992. Fort Calhoun recognizes the INPO 1995 U.S. industry goal of 0.5 nanocuries/gram and will revise our FRI goal accordingly upon completion of the current FRI re-evaluation by INPO and the issuance of a revised EPRI fuel reliability program.

The FRI will not be applicable while the plant is shutdown for the refueling outage in February, March and April, and will not be reported during these months.

Data Source: Holthaus/Guliani
Accountability: Patterson/Spilker
Adverse Trend: None



COLLECTIVE RADIATION EXPOSURE (CUMULATIVE)

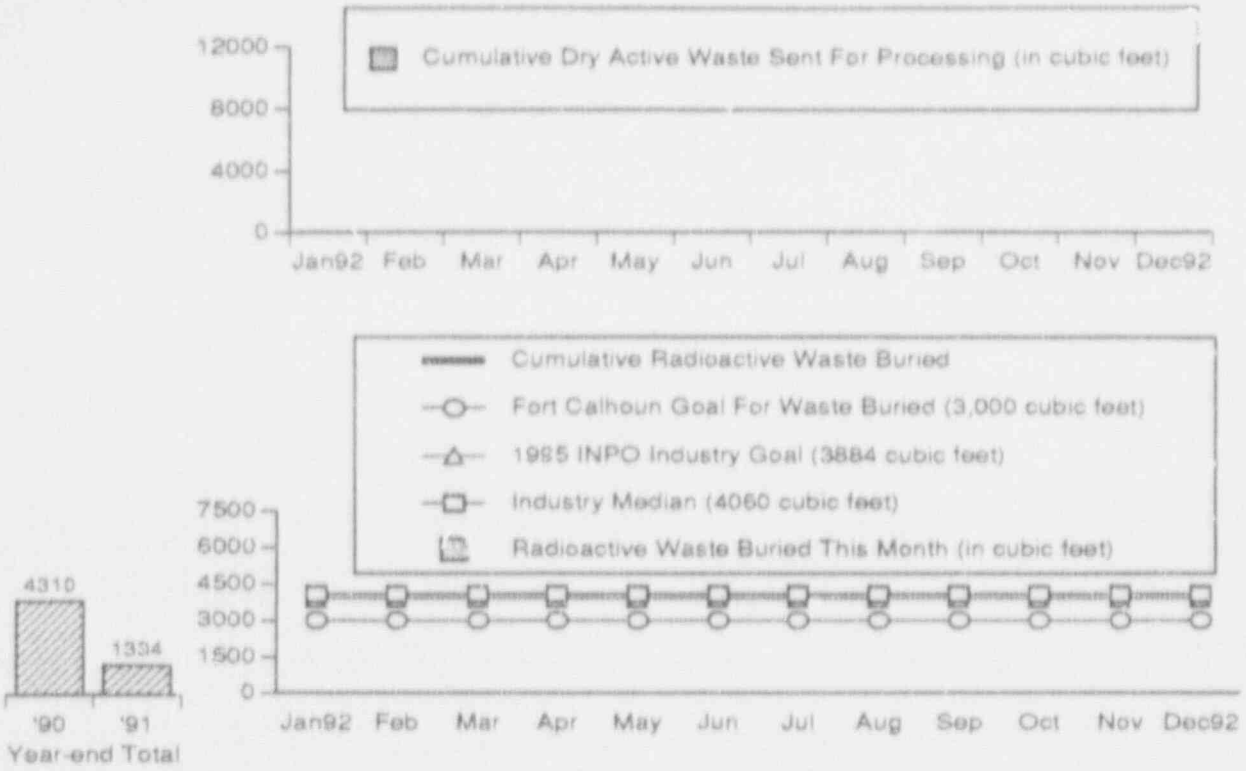
During January 1992, 3.975 man-rem was recorded by TLDs worn by personnel while working at the Fort Calhoun Station. The year-to-date exposure is 3.975 man-rem.

The Fort Calhoun goal for personnel radiation exposure (cumulative) during 1992 is 250 man-rem. The total Cycle 14 refueling outage goal is 210 man-rem. The 1995 INPO industry goal is 185 man-rem.

Data Source: Patterson/Williams (Manager/Source)

Accountability: Patterson/Lovett

Positive Trend SEP 54



VOLUME OF LOW-LEVEL SOLID RADIOACTIVE WASTE

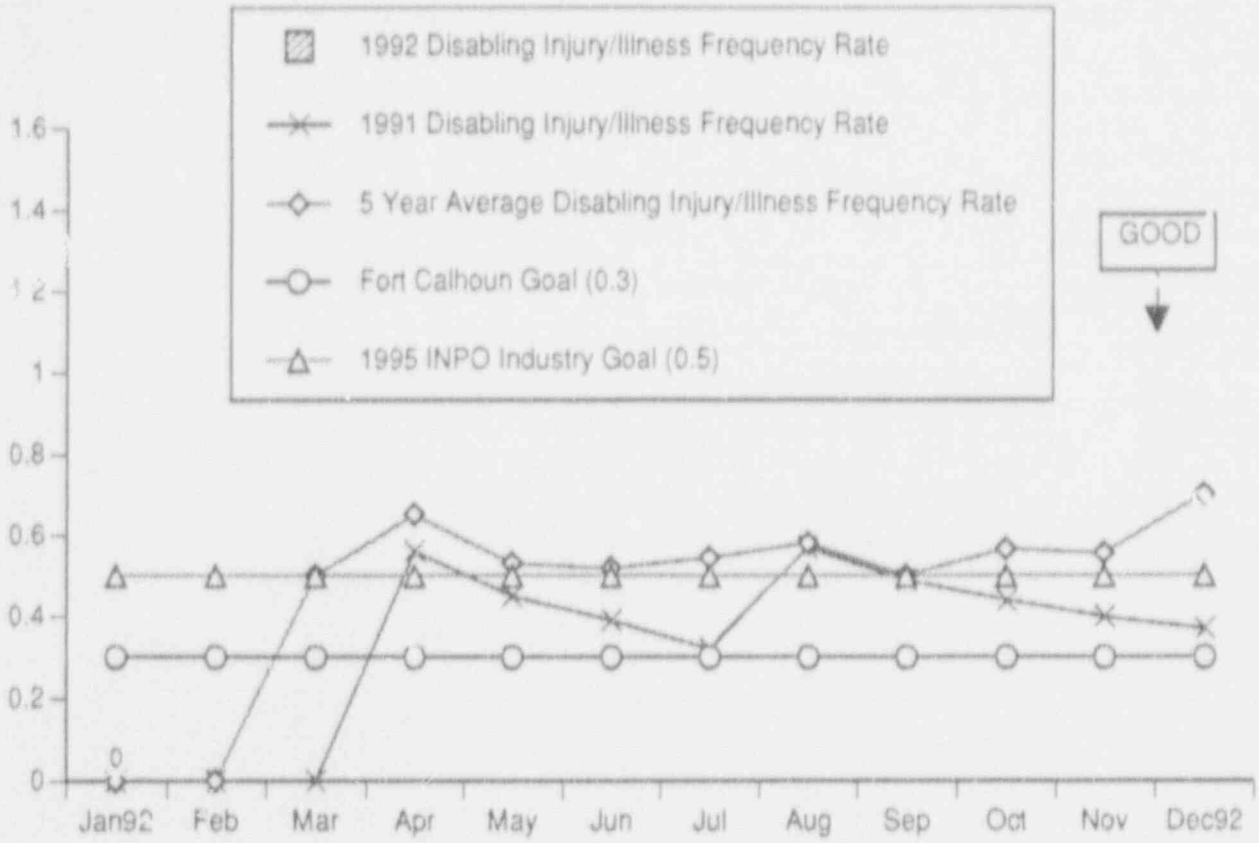
The upper graph shows the volume of radioactive oil and dry radioactive waste sent for processing. The lower graph shows the volume of the monthly, the cumulative annual total, and the year-end total of radioactive waste buried the previous 2 years.

The monthly and cumulative volumes of radioactive waste which were buried during the month of December 1991 have been revised. These revisions are due to the delay involved in the shipping for processing, the processing, and the burying of radioactive waste.

Cumulative amount of solid radwaste shipped off-site for processing (cubic feet)	0.0
Volume of solid radioactive waste which was buried during the month of December (cubic feet)	334.1
Cumulative volume of solid radioactive waste buried in 1991(cubic feet)	1,334.5
Volume of solid radioactive waste which was buried during the month of January (cubic feet)	0.0
Cumulative volume of solid radioactive waste buried in 1992 (cubic feet)	0.0
Amount of solid radioactive waste in temporary storage (cubic feet)	0.0

The 1992 Fort Calhoun goal for the volume of solid radioactive waste which has been buried is 3,000 cubic feet. The 1995 INPO industry goal is 110 cubic meters (3,884 cubic feet) per year. The industry median value is 115 cubic meters (4,060 cubic feet) per year.

Data Source: Patterson/Breuer (Manager/Source)
Accountability: Patterson/Bilau
Adverse Trend: None SEP 54



DISABLING INJURY/ILLNESS FREQUENCY RATE (LOST TIME ACCIDENT RATE)

This indicator shows the 1992 monthly disabling injury/illness frequency rate in column form. The 1991 disabling injury/illness frequency rate and the 5 year average (from 1987 through 1991) of the corresponding monthly disabling injury/illness frequency rates are also shown.

There were no (zero) lost time accidents reported at the Fort Calhoun Station in January 1992. The total number of lost time accidents that have been reported during 1992 is zero. The 1992 disabling injury/illness frequency rate goal was set at 0.3. The 1995 INPO Industry goal is 0.50.

The industry upper ten percentile disabling injury/illness frequency rate is 0.

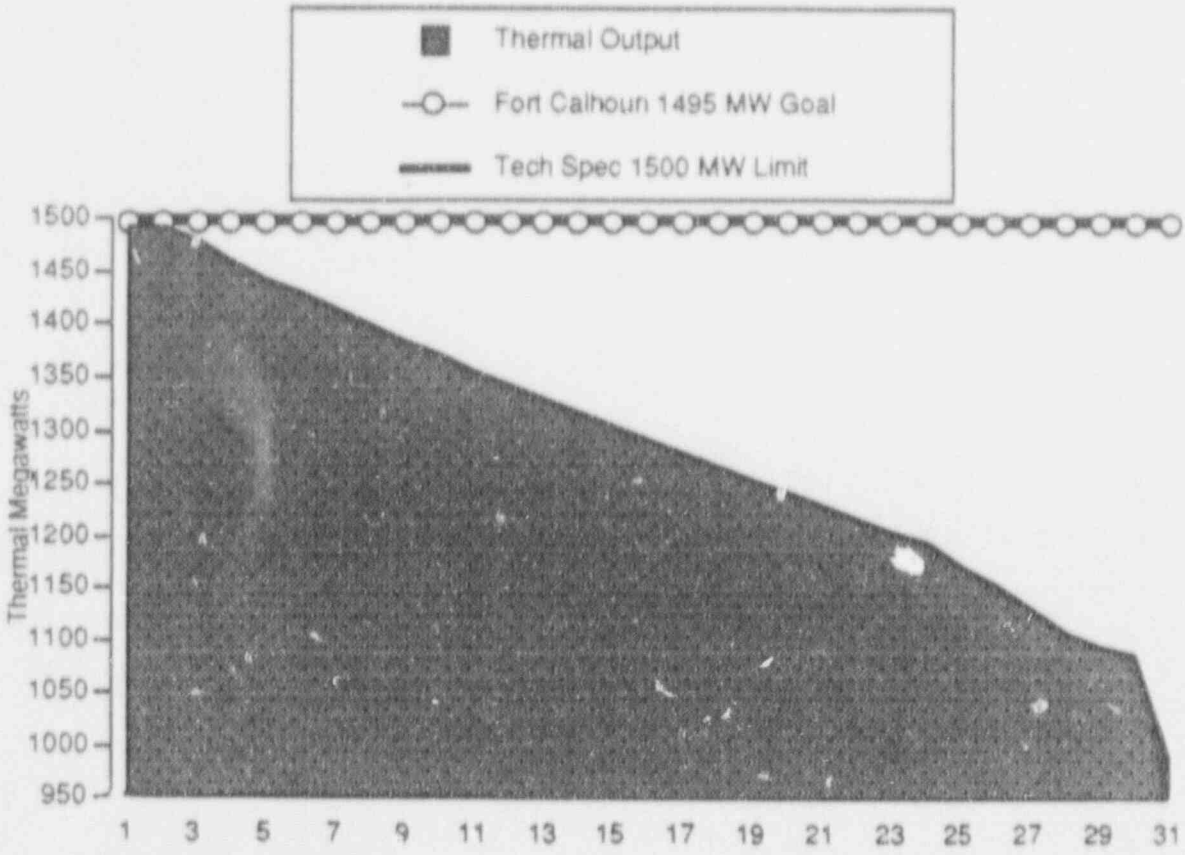
Year	Year-End Rate
1989	0.4
1990	0.5
1991	0.4

Data Source: Sorenson/Skaggs (Manager/Source)

Accountability: Patterson/Richard

Positive Trend

SEP 25 & 26



DAILY THERMAL OUTPUT

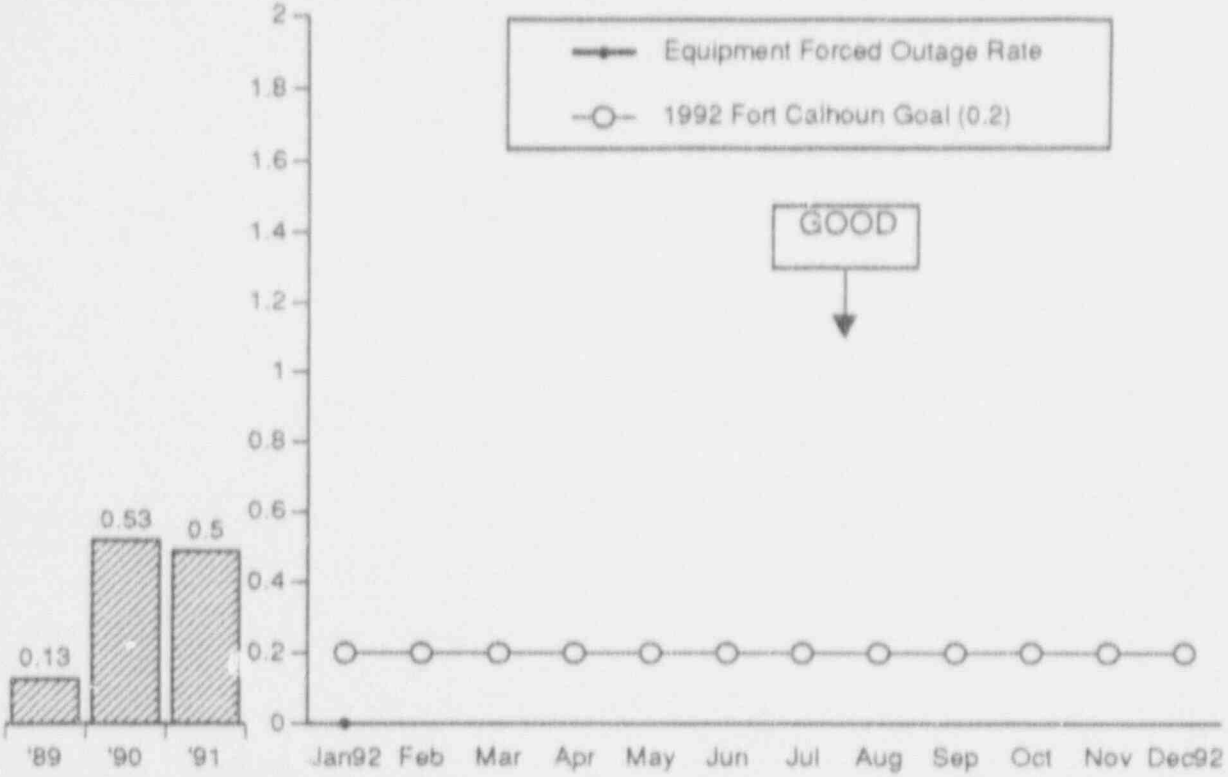
The above thermal output graph displays the daily operating power level during December 1991, the 1500 thermal megawatt average technical specification limit, and the 1495 thermal megawatt Fort Calhoun goal.

The power level declined during January 1992 with End of Life power rundown prior to the Cycle 14 Refueling Outage.

Data Source: Holthaus/Gray (Manager/Source)

Accountability: Patterson/Trausch

Adverse Trend: None



EQUIPMENT FORCED OUTAGES PER 1000 CRITICAL HOURS

The equipment forced outage rate per 1000 critical hours was zero for the month of January 1992. There were no equipment forced outages during January.

The most recent equipment forced outage was due to the station batteries being declared inoperable and began in September and was carried into October 1991. In addition, two forced outages occurred during the month of October 1991: on 10/18/91 the generator was taken off line due to a steam leak on a turbine control valve before seat drain line; on 10/25/91 the generator was taken off line due to a steam leak from an instrument tap on the high pressure turbine.

One equipment forced outage occurred during the month of August 1991. The outage was required to replace a failed potential transformer (PT). This PT converted 345 KV to 120 V for use in the breaker synchronization circuit.

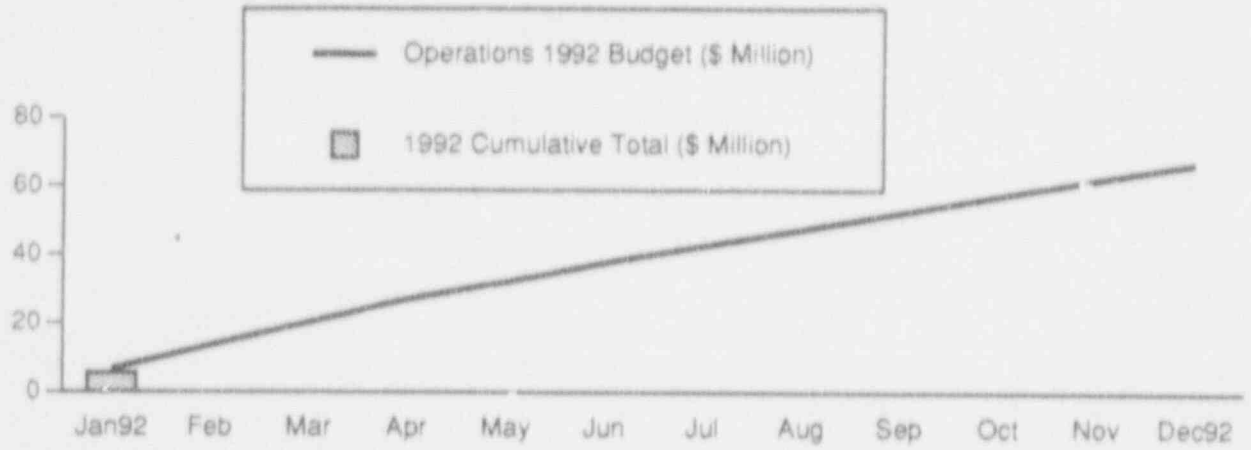
One equipment forced outage occurred in the month of January 1991 due to the December CEDM housing leak which carried outage time into January.

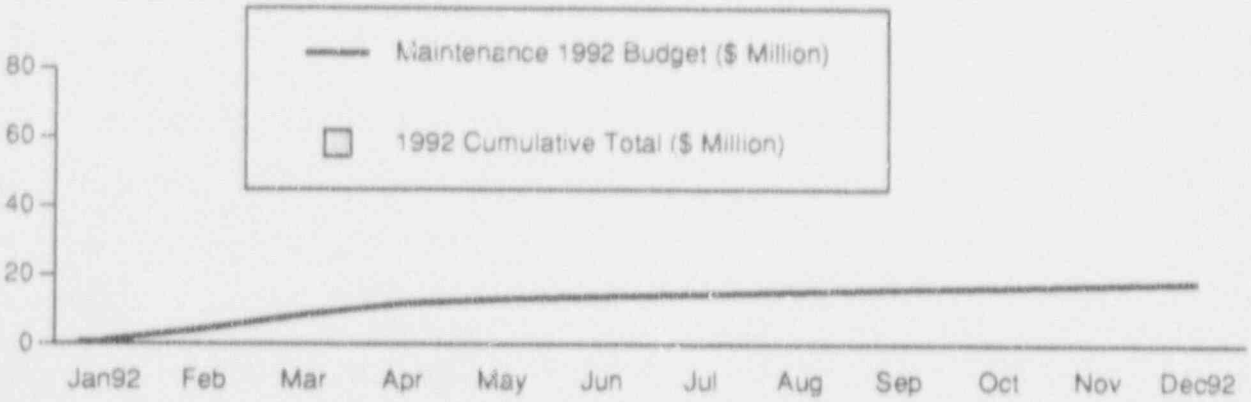
The 1992 Fort Calhoun goal for this indicator is 0.2.

Data Source: Monthly Operations Report & Plant Licensee Event Reports (LERs)

Accountability: Patterson/ Jaworski

Adverse Trend: None





OPERATIONS AND MAINTENANCE BUDGET

The Operations and Maintenance Budget Indicator shows the budget year-to-date as well as the actual expenditures for operations and maintenance for the Fort Calhoun Station.

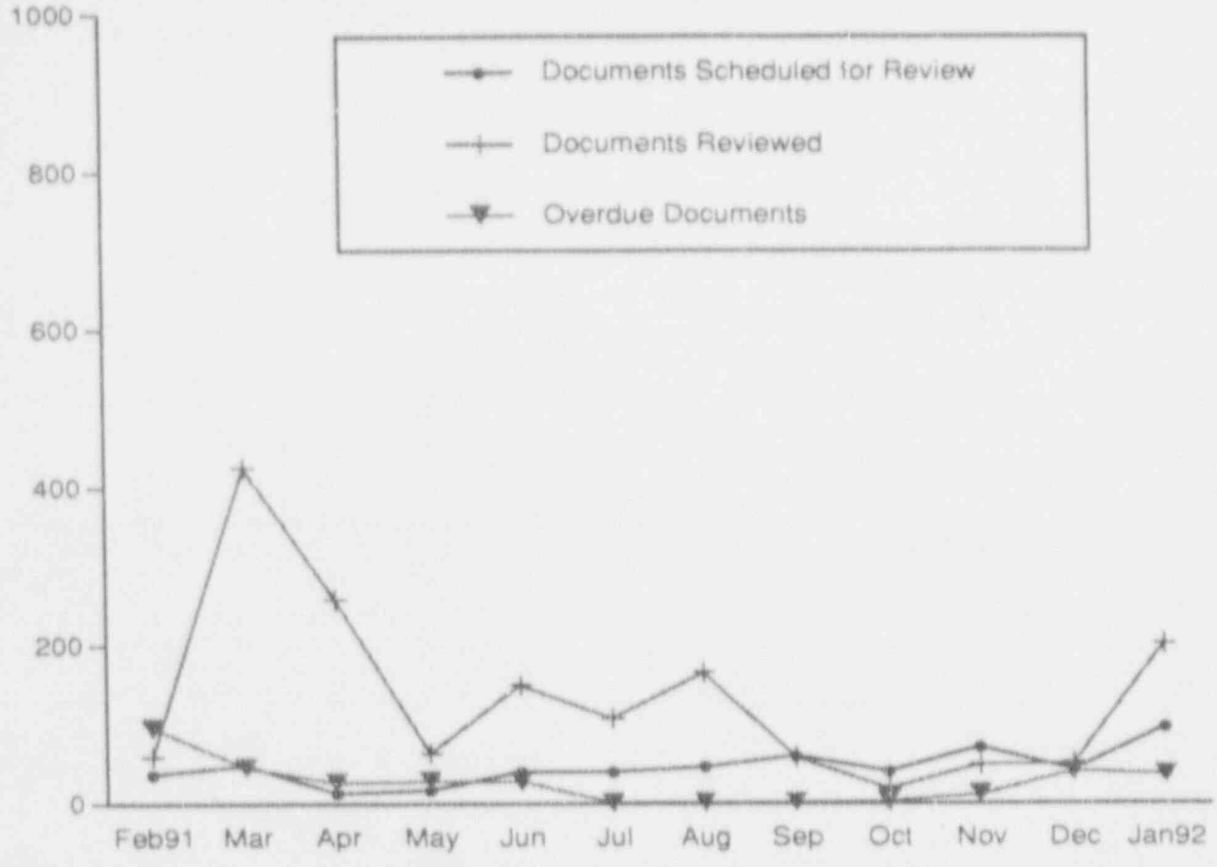
The budget year-to-date for Operations was 6,361,000 dollars for January 1992 while the actual cumulative expenditures through January totaled 5,434,188 dollars.

The budget year-to-date for Maintenance was 1,008,700 dollars for January 1992 while the actual cumulative expenditures through January totaled 1,079,674 dollars.

Data Source: Gleason/Parent (Manager/Source)

Accountability: Scofield

Adverse Trend: None



DOCUMENT REVIEW

This indicator shows the number of completed, scheduled, and overdue (greater than 6 months past the scheduled due date) biennial reviews for the reporting month. These document reviews are performed in-house and include Special Procedures, the Site Security Plan, Maintenance Procedures, Preventive Maintenance Procedures, and the Operating Manual.

During January 1992 there were 201 document reviews completed while 96 document reviews were scheduled. At the end of January, there were 36 document reviews overdue.

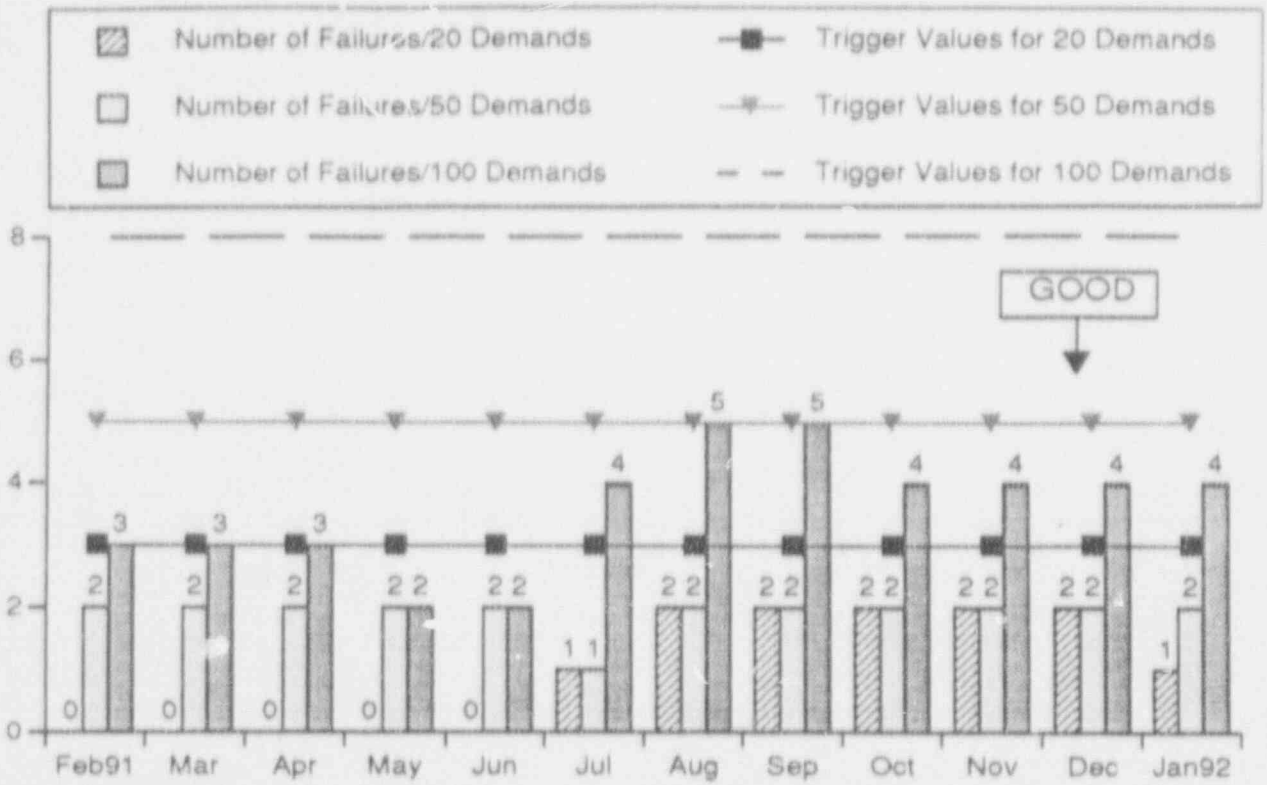
During the month of January there were 90 new or renamed documents reviewed. These new or renamed documents will need to be reviewed again in 1994.

Data Source: Patterson/McKay (Manager/Source)

Accountability: Patterson/Jaworski

Adverse Trend: None

SEP 46



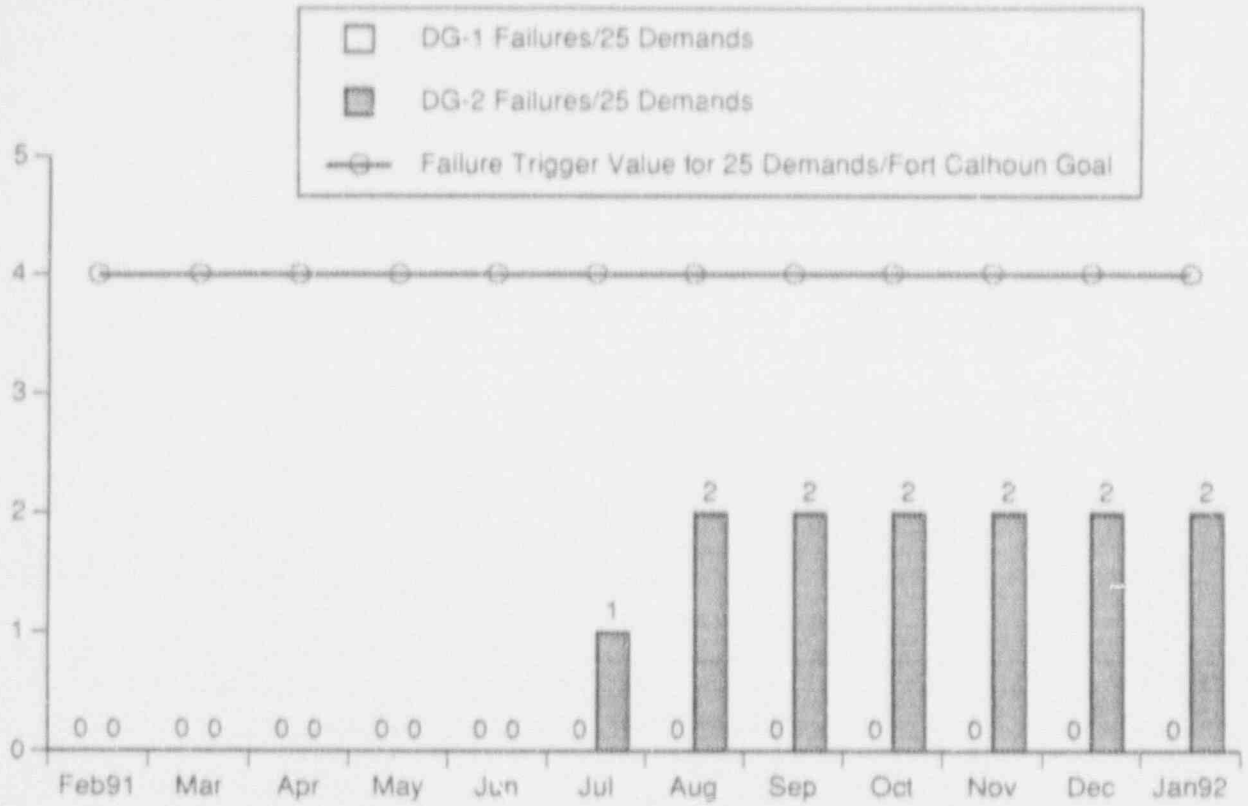
EMERGENCY DIESEL GENERATOR UNIT RELIABILITY

This bar graph shows three monthly indicators pertaining to the number of failures that were reported during the last 20, 50, and 100 emergency diesel generator demands at the Fort Calhoun Station. Also shown are trigger values which correspond to a high level of confidence that a unit's diesel generators have obtained a reliability of greater than or equal to 95% when the failure values are below the corresponding trigger values. These trigger values are the Fort Calhoun 1992 goal.

The demands counted for this indicator include the respective number of starts and the respective number of load-runs for both Diesel Generators combined. The number of start demands includes all valid and inadvertent starts, including all start-only demands and all start demands that are followed by load-run demands, whether by automatic or manual initiation. Load-run demands must follow successful starts and meet at least one of the following criteria: a load-run that is a result of a real load signal, a load-run test expected to carry the plant's load and duration as stated in the test specifications, and a special test in which a diesel generator was expected to be operated for a minimum of one hour and to be loaded with at least 50% of design load (see exceptions and other demand criteria in the Definition Section).

The demand failure which occurred during the month of August for DG-2 was due to a seal failure on the jacket water pump.

Data Source: Jaworski/Ronning (Manager/Source)
Accountability: Jaworski/Ronning
Adverse Trend: None



DIESEL GENERATOR RELIABILITY (25 DEMANDS)

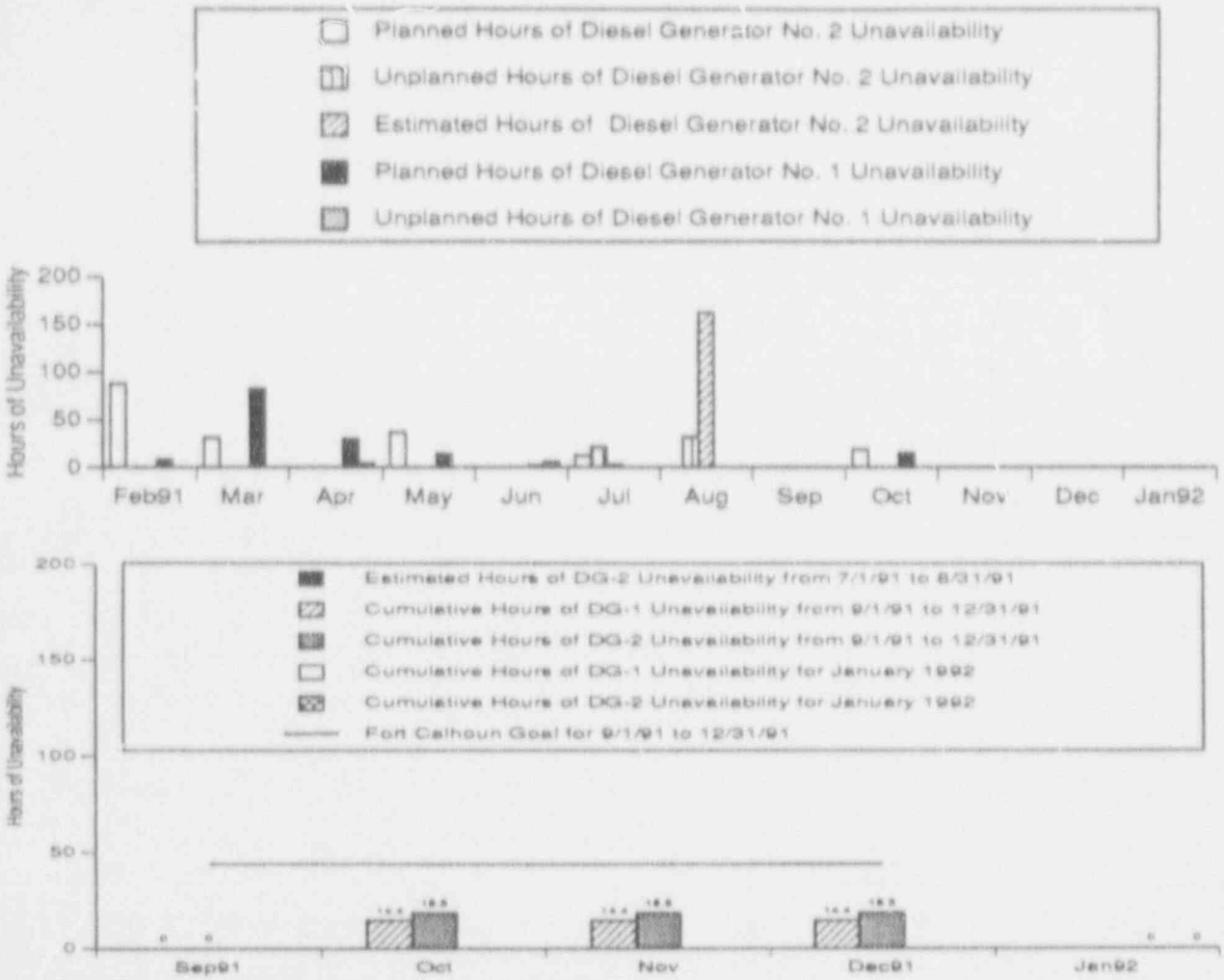
This indicator shows the number of failures experienced by each emergency diesel generator during the last 25 start demands and the last 25 load-run demands. A trigger value of 4 failures within the last 25 demands is also shown. This trigger value of 4 failures within 25 demands is the Fort Calhoun goal for 1991.

It must be emphasized that in accordance with NUMARC criteria, certain actions will take place in the event that any one emergency diesel generator experiences 4 or more failures within the last 25 demands on the unit. These actions are described in the Definition Section. A Standing Order has been drafted for the Fort Calhoun Station to institutionalize and formally approve/adopt the required NUMARC actions.

Diesel Generator DG-1 has not experienced any failures during the last 25 demands on the unit.

Diesel Generator DG-2 has experienced two failures during the last 25 demands on the unit. An air damper roll pin failure occurred in July 1991, and a seal failed on a jacket water pump in August 1991.

Data Source: Jaworski/Ronning (Manager/Source)
Accountability: Jaworski/Ronning
Adverse Trend: None



DIESEL GENERATOR UNAVAILABILITY

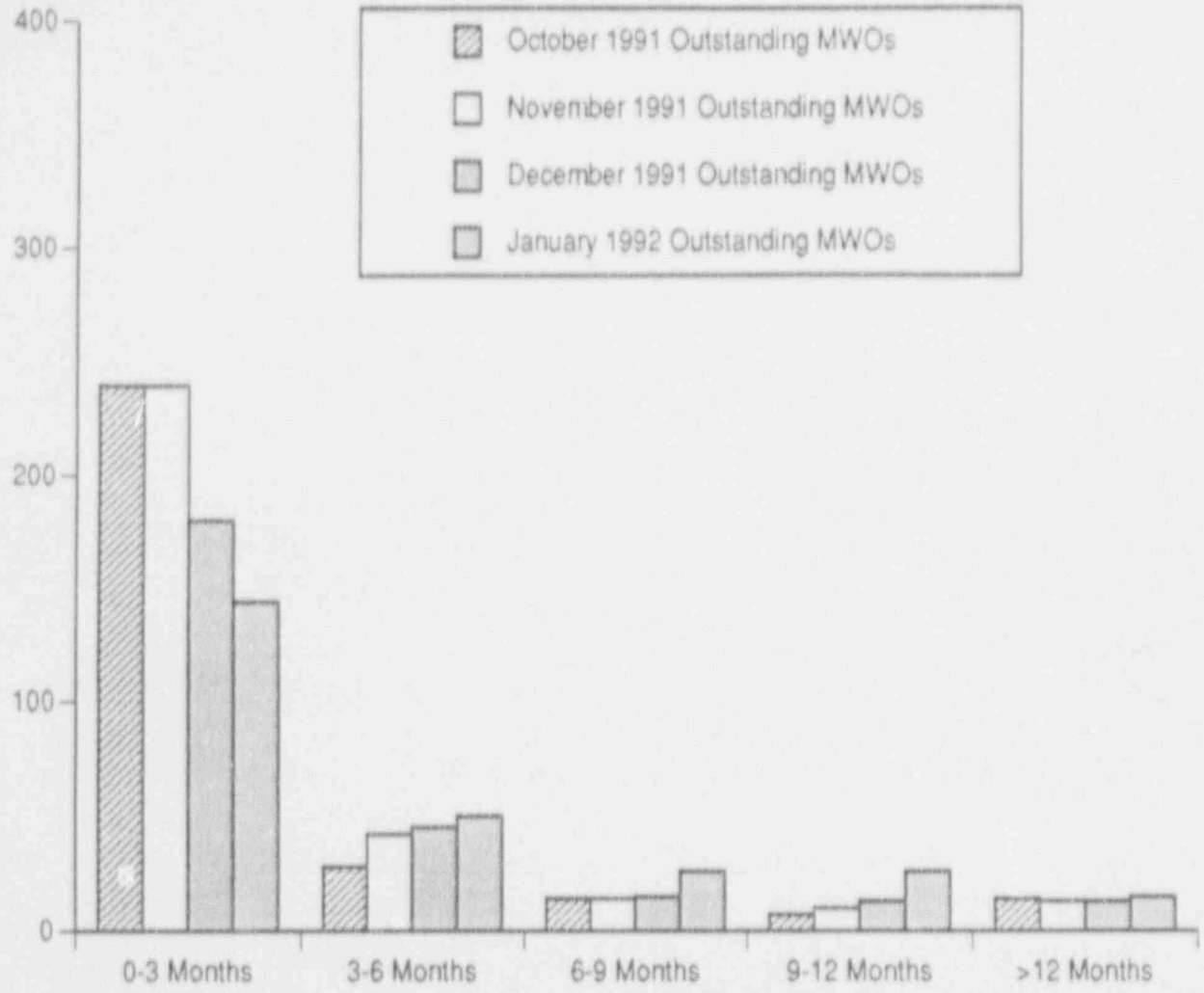
This indicator provides a monthly illustration of diesel generator unavailability. The top graph shows the diesel generator planned, unplanned, and estimated unavailable hours for DG-1 and DG-2 for each month. The lower graph shows the cumulative hours of unavailability for each diesel generator for two time periods: from September through December 1991 and for January 1992.

There were zero unavailable hours for DG-1 and DG-2 during the month of January 1992.

Fort Calhoun met the goal of 43.8 unavailable hours per DG for the last four months of 1991. This goal is based on the 1990 INPO industry median value for diesel generator unavailable hours.

The 14.4 hours of DG-1 unavailability and 18.3 hours of DG-2 unavailability for the month of October were attributable to planned maintenance activities.

Data Source: Jaworski/Ronning (Manager/Source)
Accountability: Jaworski/Ronning
Adverse Trend: None



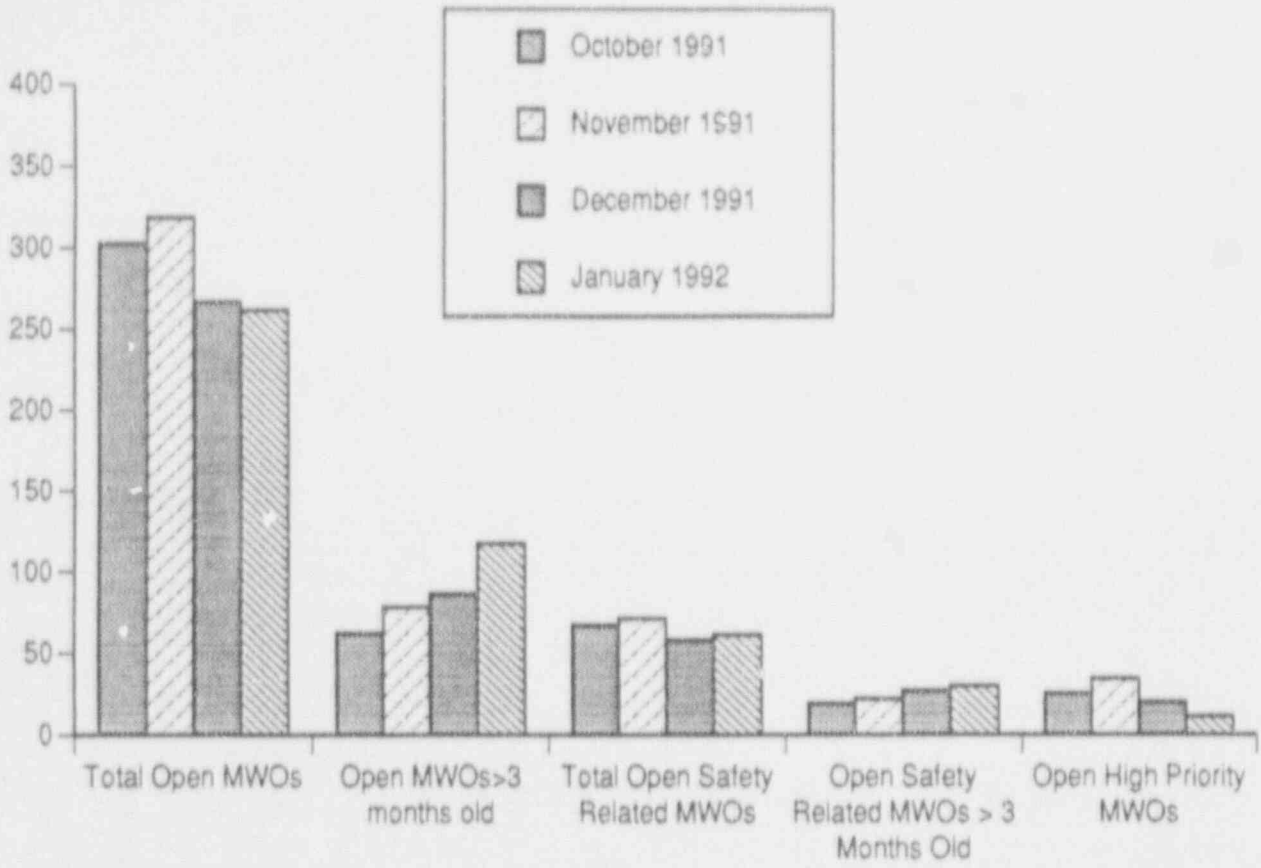
AGE OF OUTSTANDING MAINTENANCE WORK ORDERS (CORRECTIVE NON-OUTAGE)

This indicator shows the age of corrective non-outage maintenance work orders (MWOs) remaining open at the end of the reporting month.

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/ Bobba

Adverse Trend: Based on three consecutive months of increasing values for MWOs 3 - 6 months old and MWOs 9 - 12 months old, an adverse trend is indicated.



MAINTENANCE WORK ORDER BREAKDOWN (CORRECTIVE NON-OUTAGE)

This indicator shows the total number of corrective non-outage MWOs remaining open at the end of the reporting month, along with a breakdown by several key categories.

The number of open MWOs >3 months old is increasing because on-line activities must be scheduled beyond the end of the Cycle 14 Refueling Outage.

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/ Bobba

Adverse Trend: Based on increasing values for three consecutive months for Open MWOs >3 months old and Open Safety Related MWOs >3 months old, an adverse trend is indicated.

SEP 36

CORRECTIVE MAINTENANCE BACKLOG GREATER THAN 3 MONTHS OLD (NON-OUTAGE)

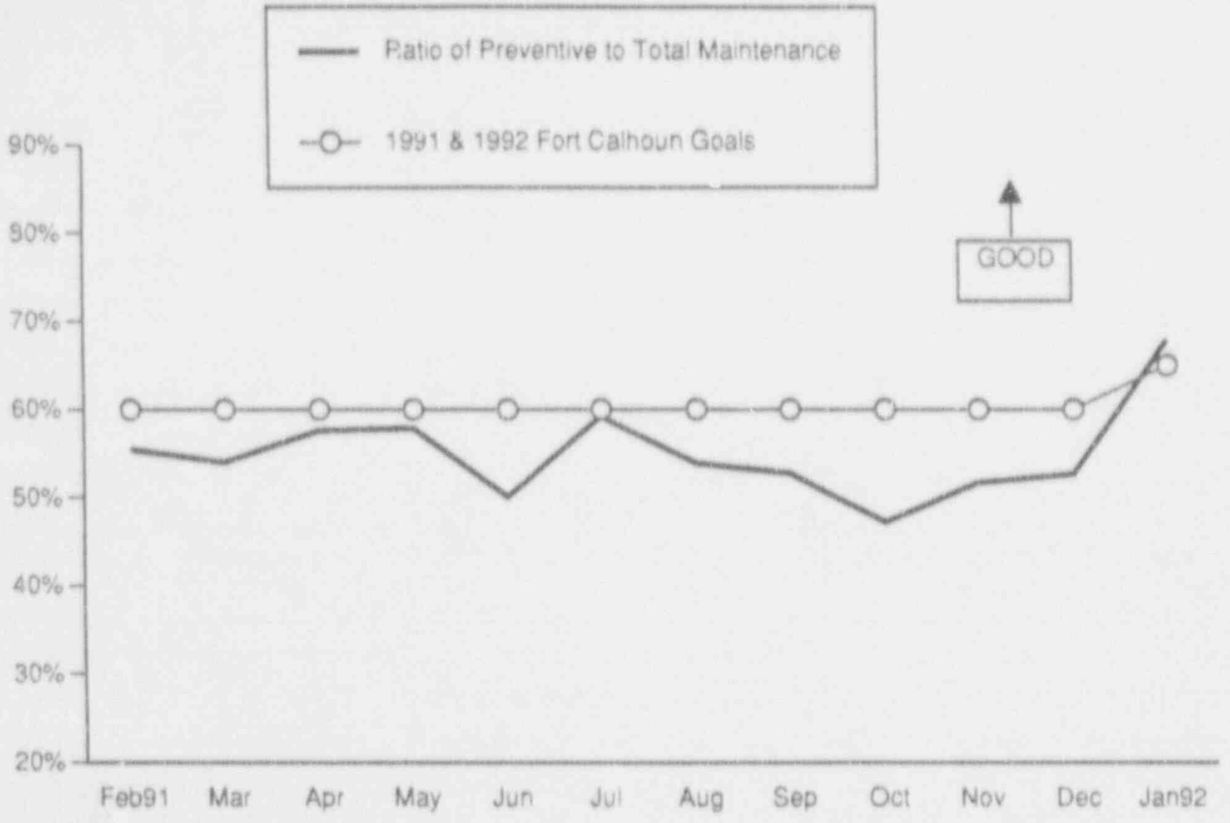
This indicator shows the percentage of open corrective non-outage maintenance work orders that were greater than three months old at the end of the reporting month.

The percentage of open corrective non-outage maintenance work orders that were greater than three months old at the end of January 1992 was reported as 44.8%.

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/ Bobba

Adverse Trend: An adverse trend is indicated based on increasing values for three consecutive months.



RATIO OF PREVENTIVE TO TOTAL MAINTENANCE (NON-OUTAGE)

This indicator shows the ratio of completed non-outage preventive maintenance to total completed non-outage maintenance.

The ratio of preventive to total maintenance was 67.8% in January 1992. The values for this indicator decreased during September and October 1991 due to a greater emphasis being placed on completion of MWO work (see p. 27 for the "Corrective Maintenance Backlog Greater Than 3 Months Old" indicator) during the battery outage.

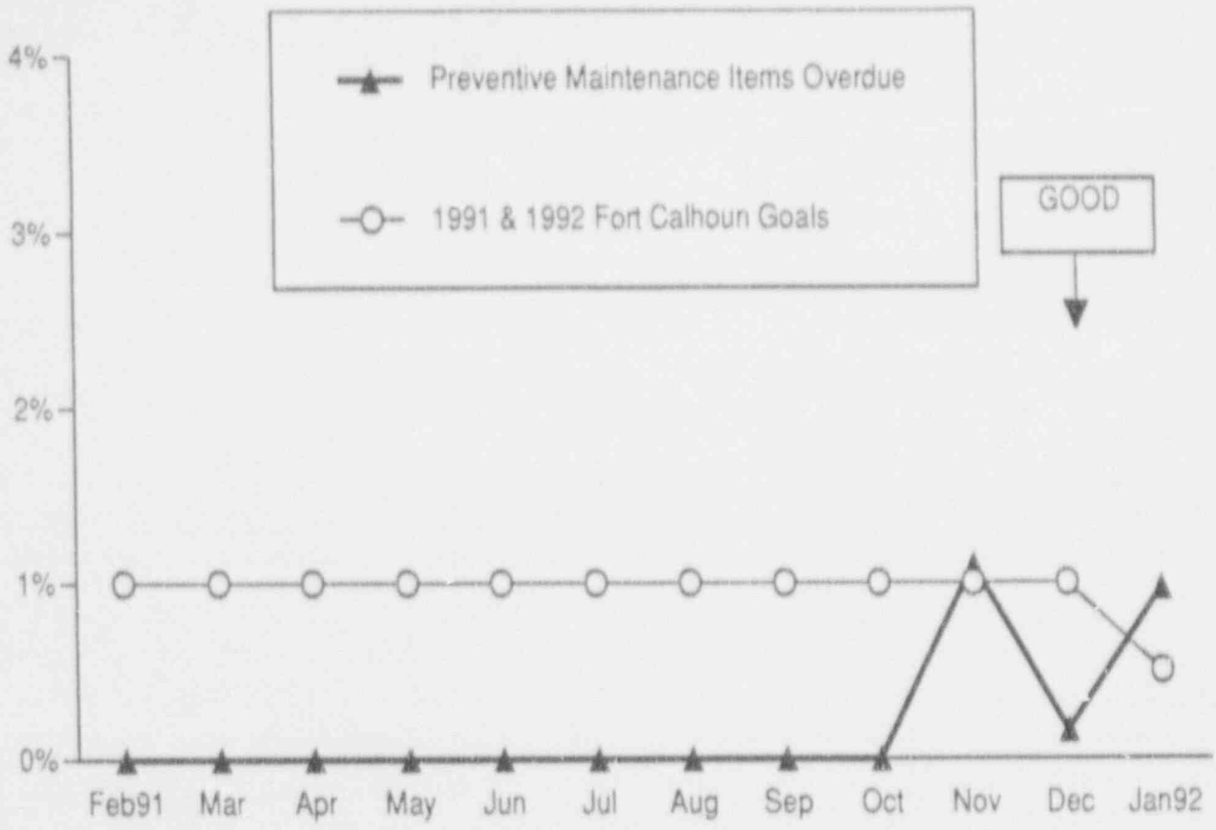
The 1992 Fort Calhoun goal is to attain a ratio of preventive to total maintenance greater than 65%. The 1991 Fort Calhoun goal was to attain a ratio of preventive to total maintenance greater than 60%.

Accountability: Patterson/ Bobba

Data Source: Patterson/Schmitz (Manager/Source)

Adverse Trend: None

SEP 41



PREVENTIVE MAINTENANCE ITEMS OVERDUE

The purpose of this indicator is to monitor progress in the administration and execution of preventive maintenance programs. A small percentage of preventive maintenance items overdue indicates a station commitment to the preventive maintenance program and an ability to plan, schedule, and perform preventive maintenance tasks as programs require.

During January 1992, 1,754 PM items were completed. 17 PM items (0.97% of the total 1,754) were not completed within the allowable grace period.

The percentage of preventive maintenance items overdue was higher in November because of a scheduling problem resulting in a delay in completing PM task paperwork.

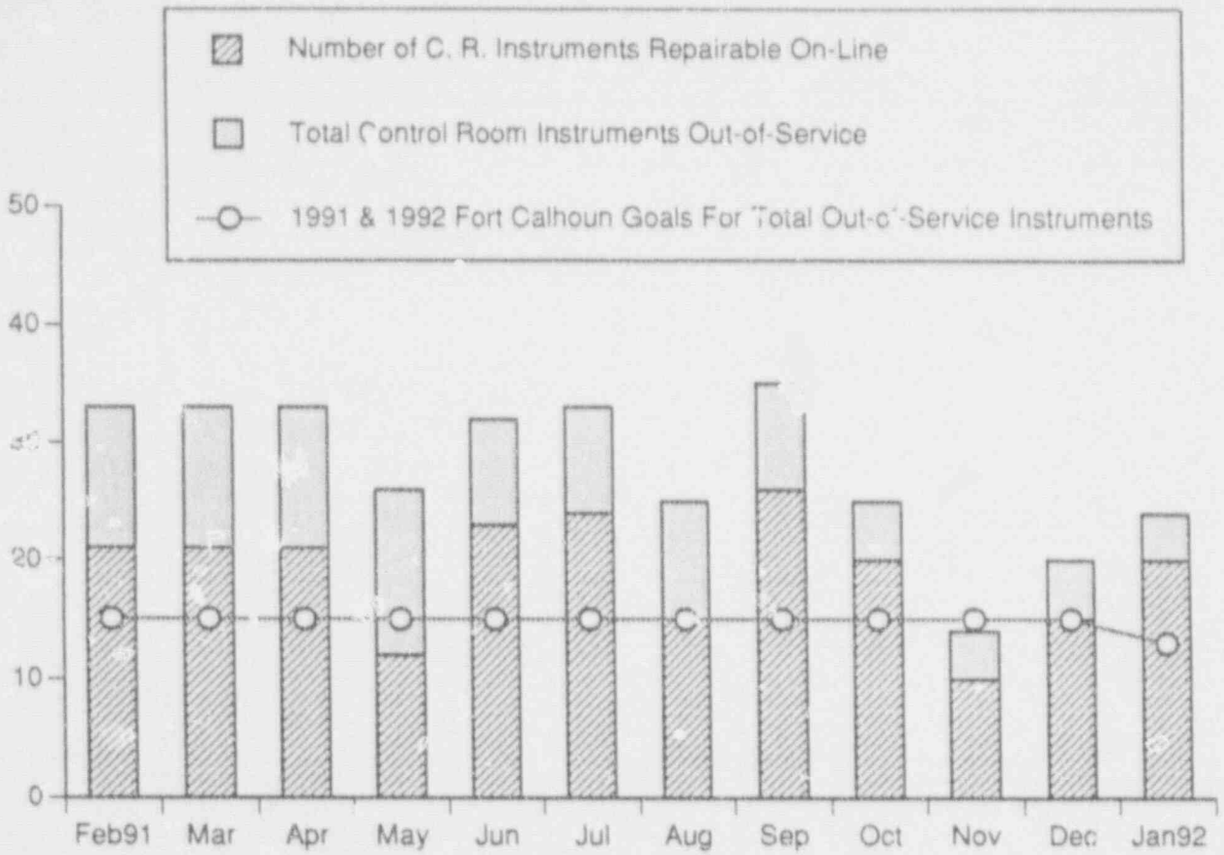
The 1992 Fort Calhoun goal is to have less than 0.5% per month of the preventive maintenance items overdue. The 1991 Fort Calhoun goal was to have less than 1% per month of the preventive maintenance items overdue.

Data Source: Patterson/Linden (Manager/Source)

Accountability: Patterson/ Bobba

Adverse Trend: None

SEP 41



NUMBER OF OUT-OF-SERVICE CONTROL ROOM INSTRUMENTS

This indicator shows the number of out-of-service control room instruments, the number of instruments repairable during plant operation (on-line), the industry upper quartile for this indicator, and the Fort Calhoun goal.

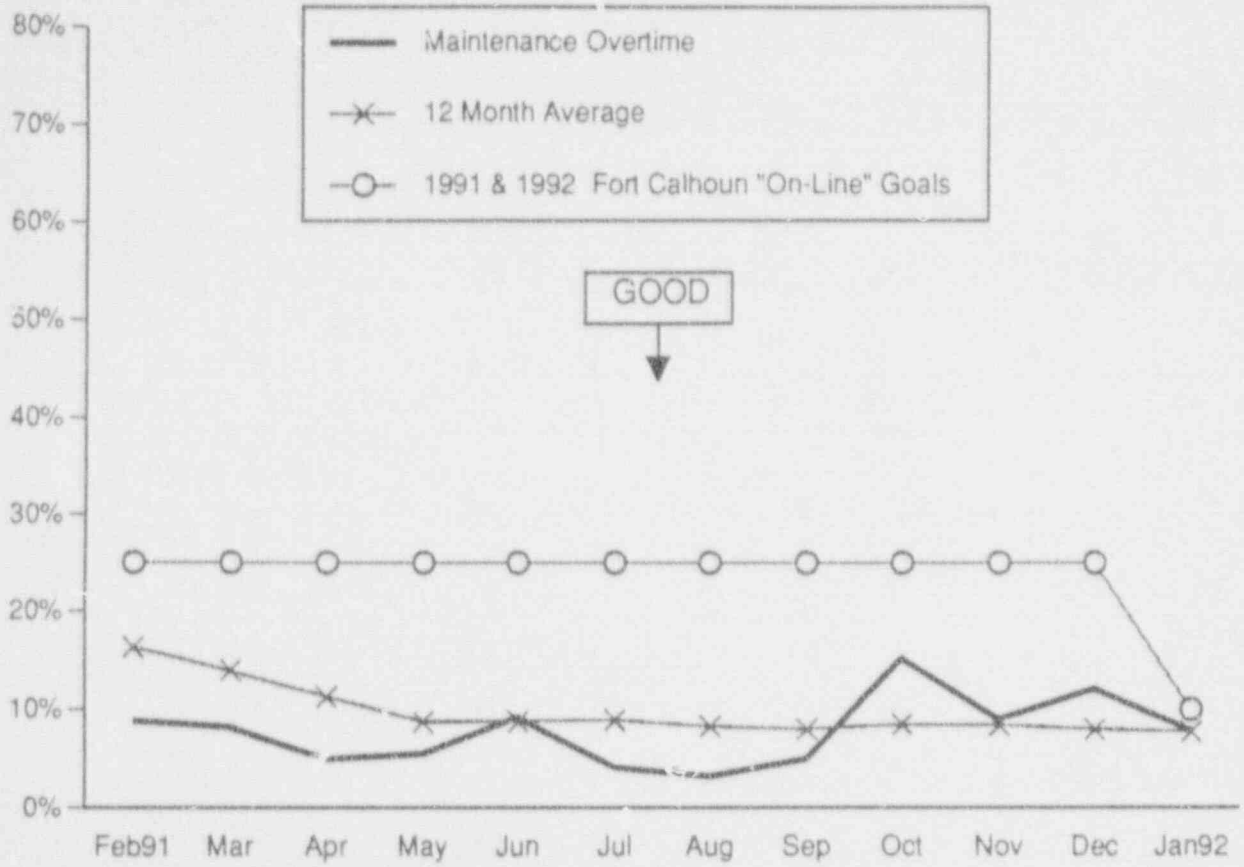
There was a total of 24 out-of-service control room instruments at the end of January 1992. A plant outage is required to repair 4 of these 24 control room instruments.

The 1992 Fort Calhoun goal is to have less than 13 out-of-service control room instruments. The 1991 Fort Calhoun goal was to have less than 14 out-of-service control room instruments.

Data Source: Patterson/Spilker (Manager/Source)

Accountability: Patterson/ Bobba

Adverse Trend: None



MAINTENANCE OVERTIME

The Maintenance Overtime Indicator monitors the ability to perform the desired maintenance activities with the allotted resources. Excessive overtime indicates insufficient resource allocation and can lead to errors due to fatigue.

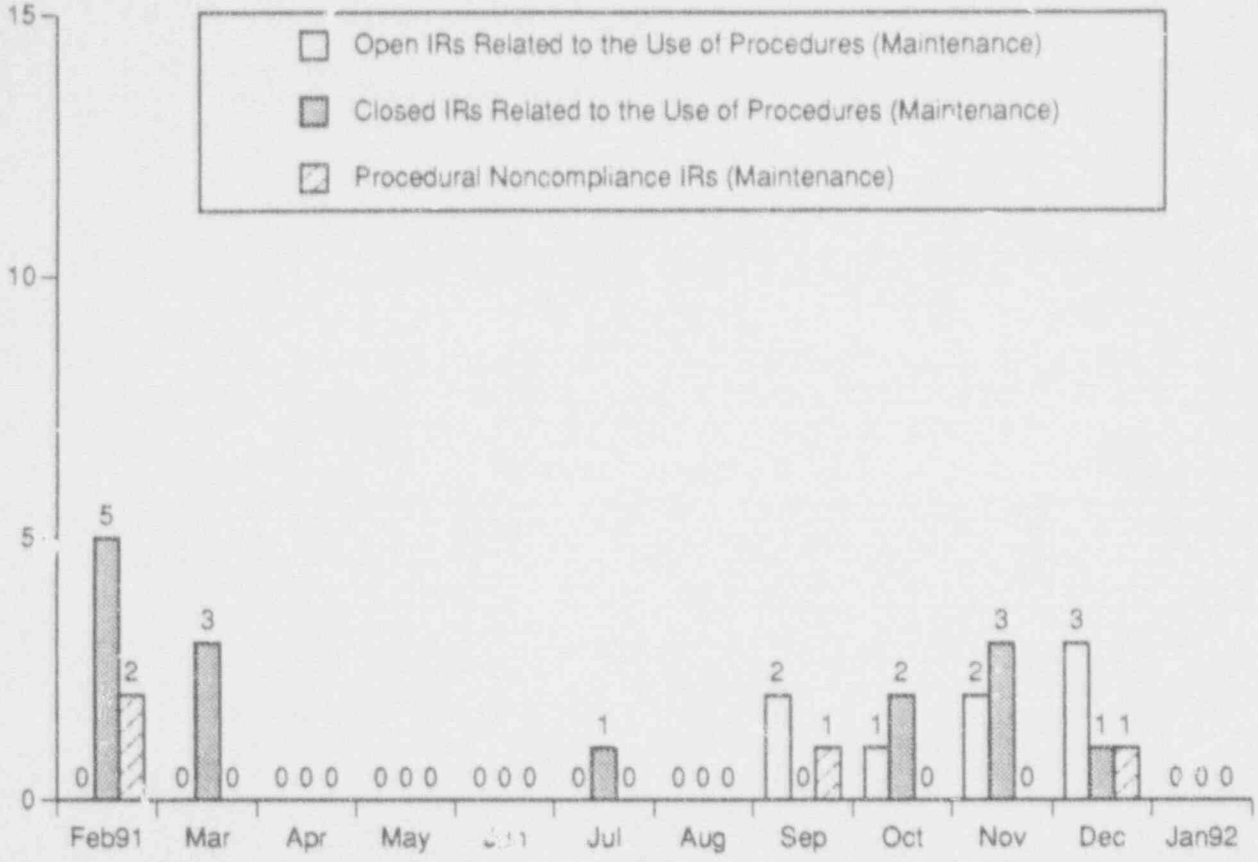
The percent of overtime hours with respect to normal hours was reported as 7.9% during the month of January 1992. The 12 month average percentage of overtime hours with respect to normal hours was reported as 7.8%.

The 1992 Fort Calhoun goal for the "on-line" percentage of maintenance overtime hours worked is 10%.

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/ Bobba

Adverse Trend: None



PROCEDURAL NONCOMPLIANCE INCIDENTS (MAINTENANCE)

This indicator shows the number of open Maintenance Incident Reports (IRs) that are related to the use of procedures, the number of closed IRs that are related to the use of procedures, and the number of open and closed IRs that received procedural noncompliance cause codes.

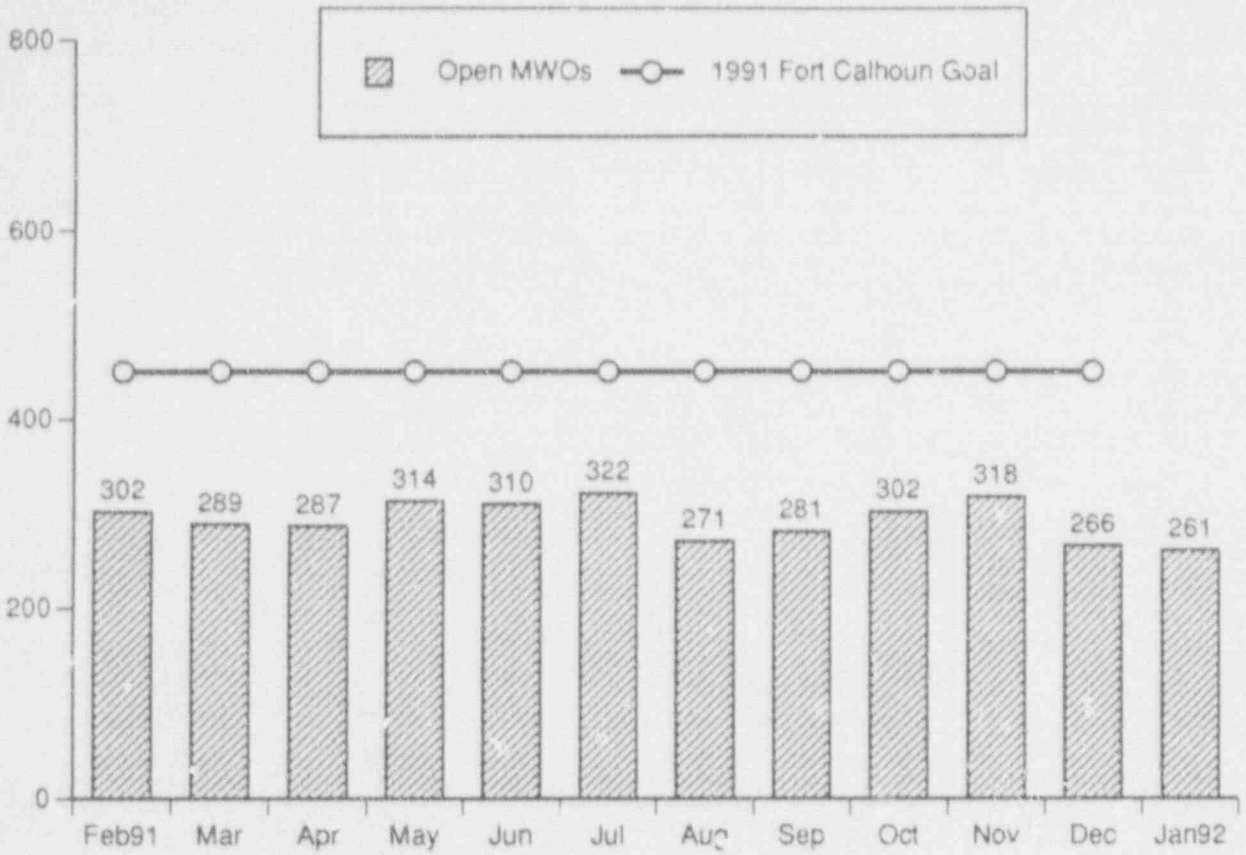
There were no procedural noncompliance incidents for maintenance reported for the month of January 1992.

Data Source: Patterson/McKay (Manager/Source)

Accountability: Patterson/Bobba

Adverse Trend: None

SEP 15, 41 & 44



MAINTENANCE WORK ORDER BACKLOG
(CORRECTIVE NON-OUTAGE MAINTENANCE)

This indicator shows the number of corrective non-outage Maintenance Work Orders (MWOs) that were open at the end of the reporting month.

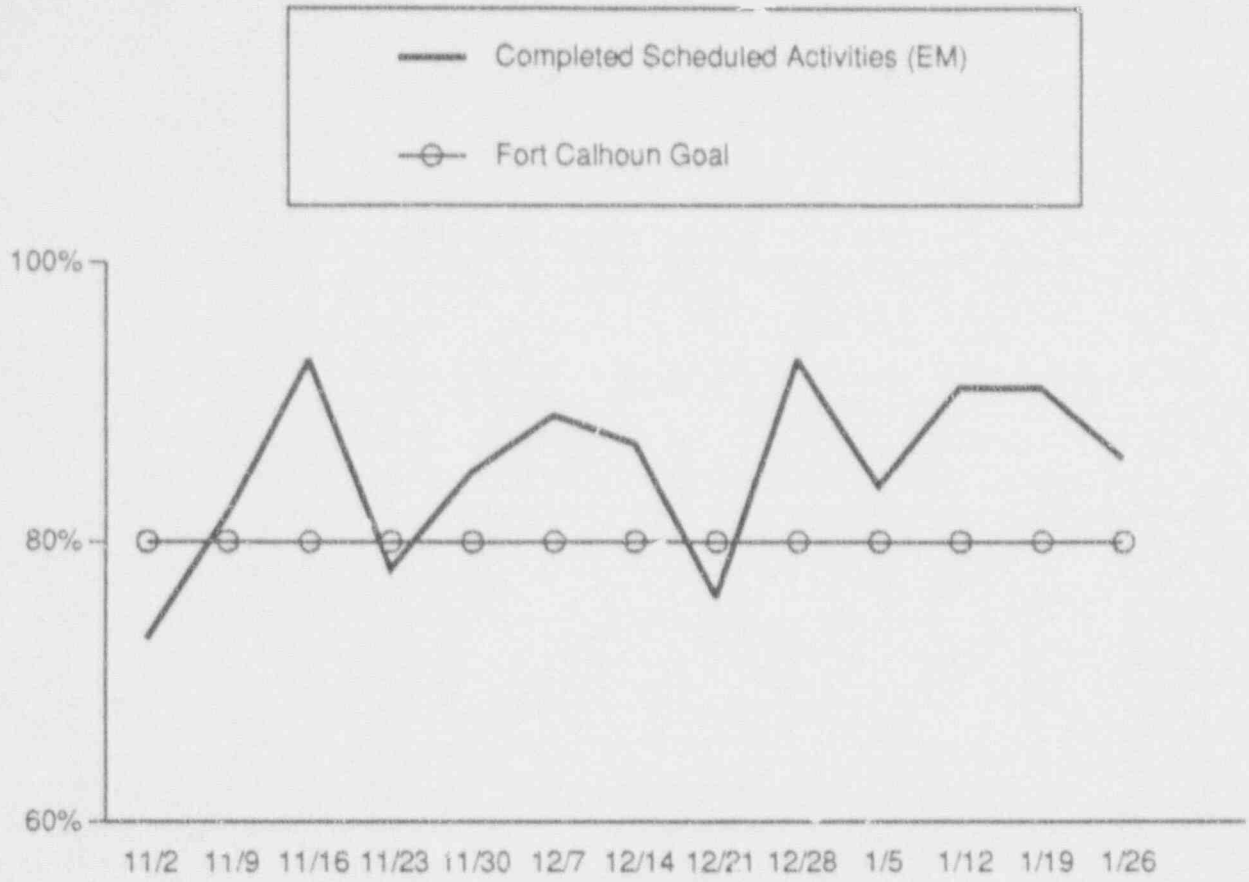
The 1991 goal for this indicator was to have less than 450 corrective non-outage maintenance work orders remaining open.

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/Bobba

Adverse Trend: None

SEP 36



PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES (ELECTRICAL MAINTENANCE)

This indicator shows the percent of the number of completed maintenance activities as compared to the number of scheduled maintenance activities concerning Electrical Maintenance. Maintenance activities include MWRs, MWOs, STs, PMOs, calibrations, and miscellaneous maintenance activities.

The Fort Calhoun Station goal for this indicator is 80%.

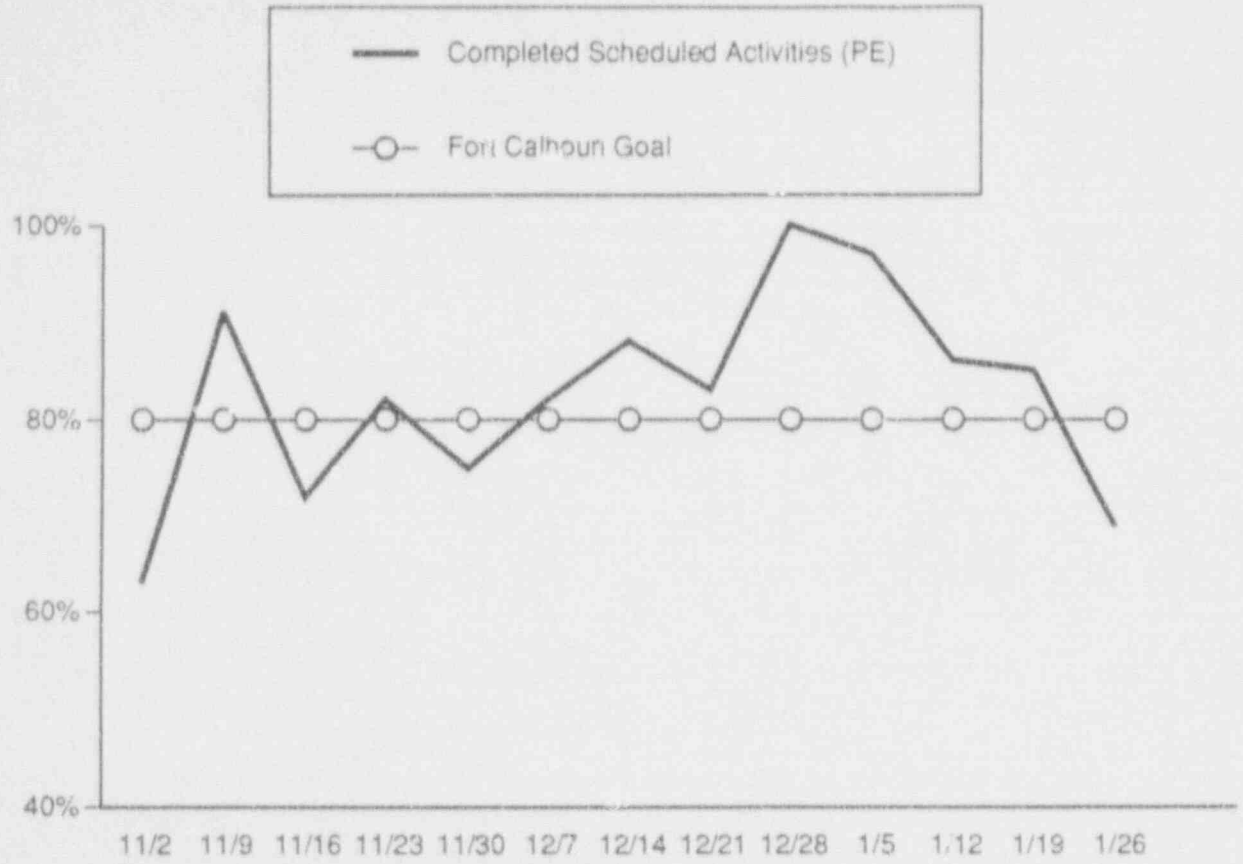
Reporting Month	Completed Scheduled Activities
Week 1	84%
Week 2	91%
Week 3	91%
Week 4	86%

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/Bobba

Adverse Trend: None

SEP 33



PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES (PRESSURE EQUIPMENT)

This indicator shows the percent of the number of completed maintenance activities as compared to the number of scheduled maintenance activities concerning Pressure Equipment Maintenance. Maintenance activities include MWRs, MWOs, STs, PMOs, calibrations, and miscellaneous maintenance activities.

The Fort Calhoun Station goal for this indicator is 80%.

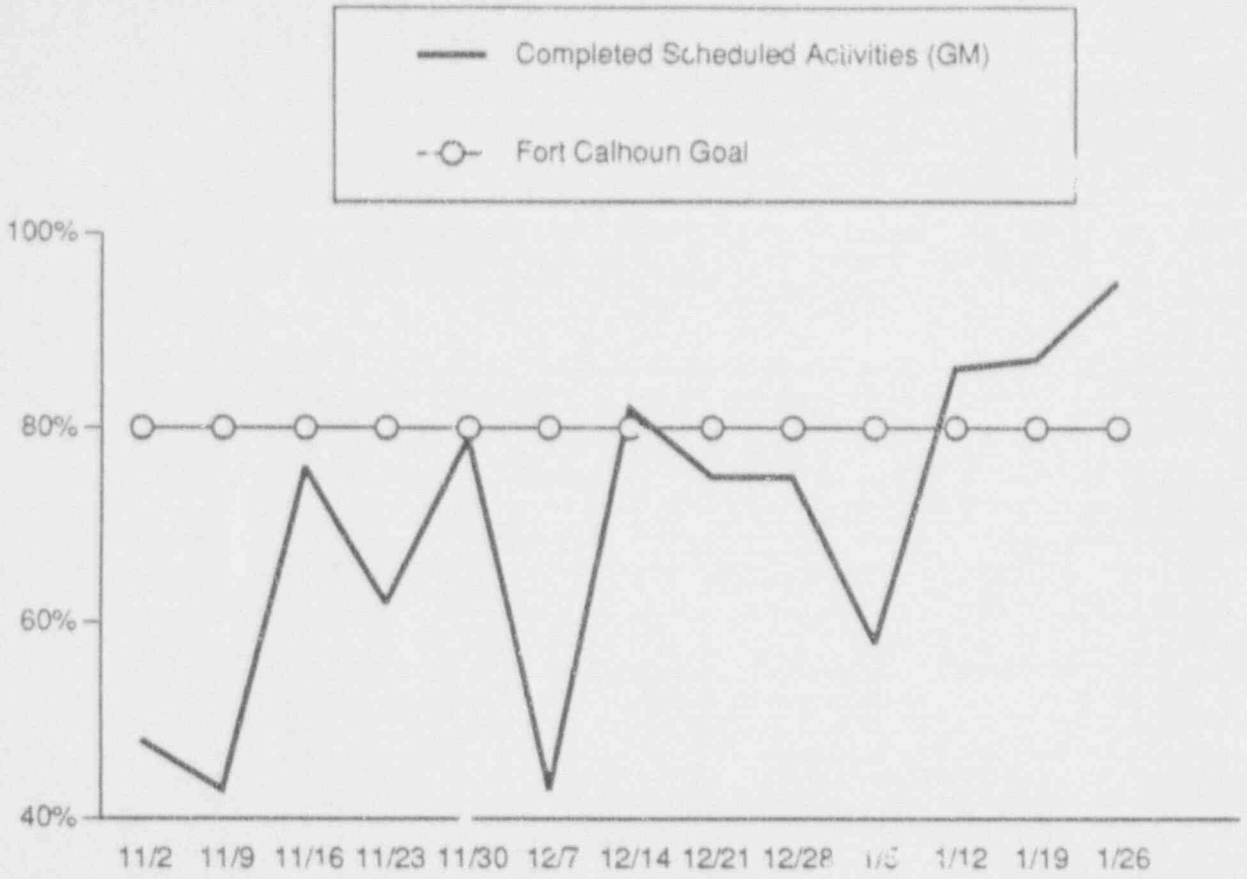
Reporting Month	Completed Scheduled Activities
Week 1	97%
Week 2	86%
Week 3	85%
Week 4	69%

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/Bobba

Adverse Trend: None

SEP 33



PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES (GENERAL MAINTENANCE)

This indicator shows the percent of the number of completed maintenance activities as compared to the number of scheduled maintenance activities concerning General Maintenance. Maintenance activities include MWRs, MWOs, STs, PMOs, calibrations, and miscellaneous maintenance activities.

The Fort Calhoun Station goal for this indicator is 80%. General Maintenance was unable to meet this goal for most of the time period graphed due to emergent work such as snow removal and additional maintenance support.

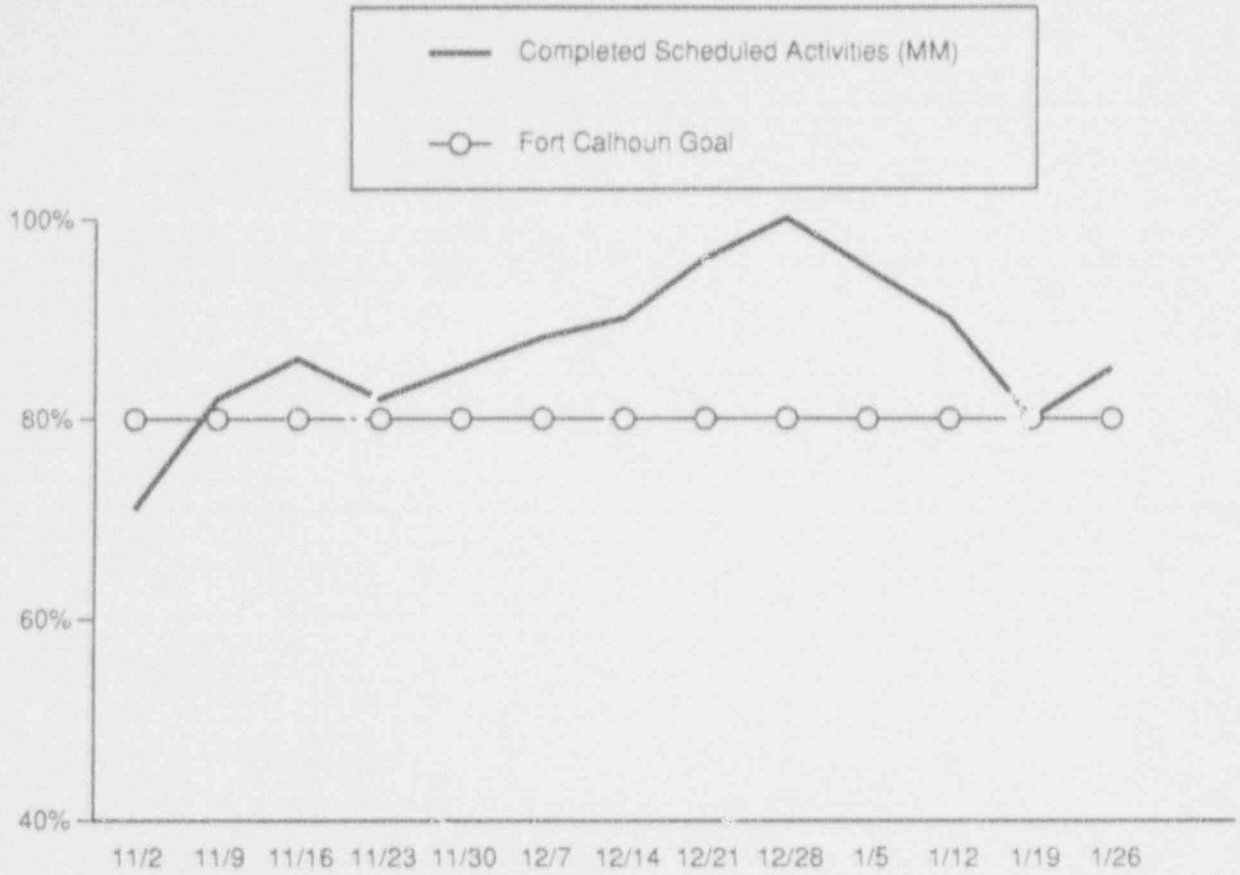
Reporting Month	Completed Scheduled Activities
Week 1	58%
Week 2	86%
Week 3	87%
Week 4	95%

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/Bobba

Adverse Trend: None

SEP 33



PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES (MECHANICAL MAINTENANCE)

This indicator shows the percent of the number of completed maintenance activities as compared to the number of scheduled maintenance activities concerning Mechanical Maintenance. Maintenance activities include MWRs, MWOs, STs, PMOs, calibrations, and miscellaneous maintenance activities.

The Fort Calhoun Station goal for this indicator is 80%.

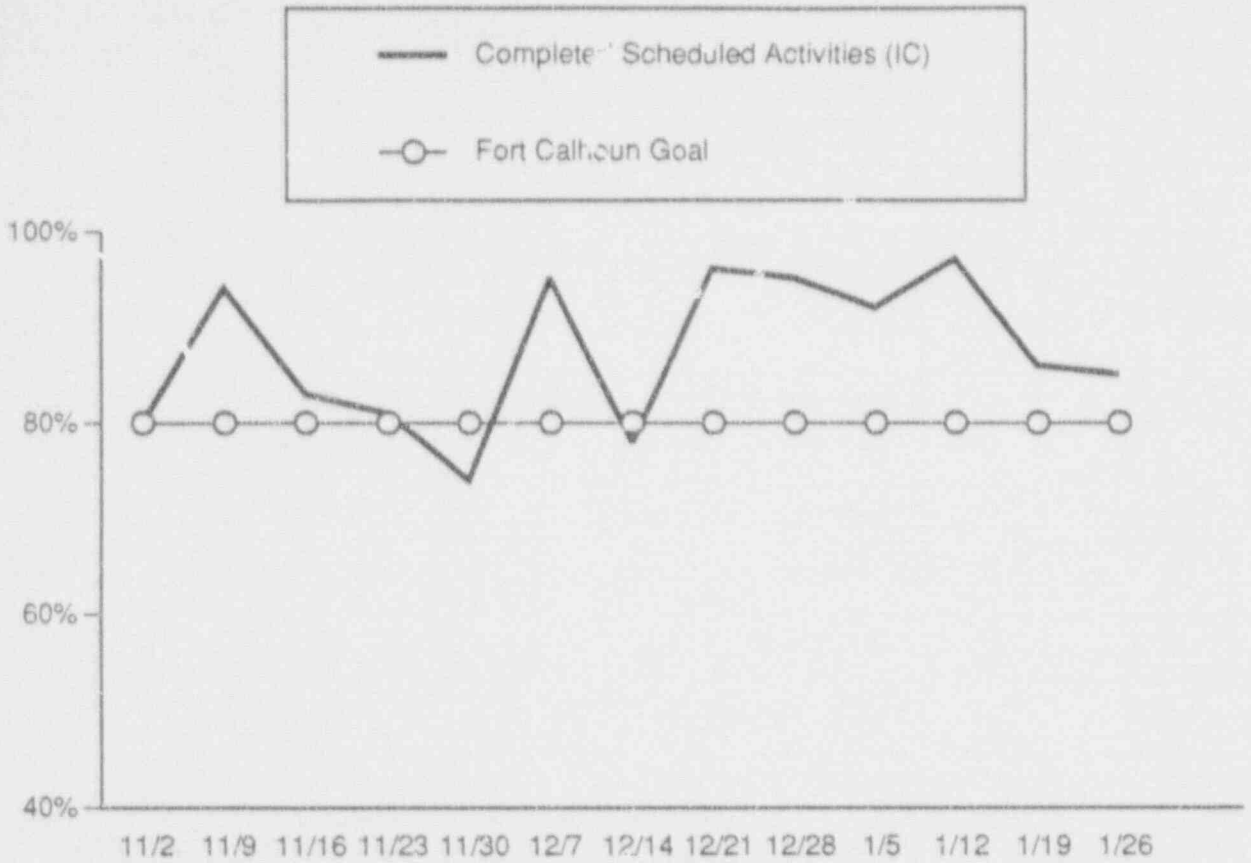
Reporting Month	Completed Scheduled Activities
Week 1	95%
Week 2	90%
Week 3	80%
Week 4	85%

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/Bobba

Adverse Trend: None

SEP 33



PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES (INSTRUMENTATION & CONTROL)

This indicator shows the percent of the number of completed maintenance activities as compared to the number of scheduled maintenance activities concerning Instrumentation & Control. Maintenance activities include MWRs, MWOs, STs, PMOs, calibrations, and miscellaneous maintenance activities.

The Fort Calhoun Station goal for this indicator is 80%.

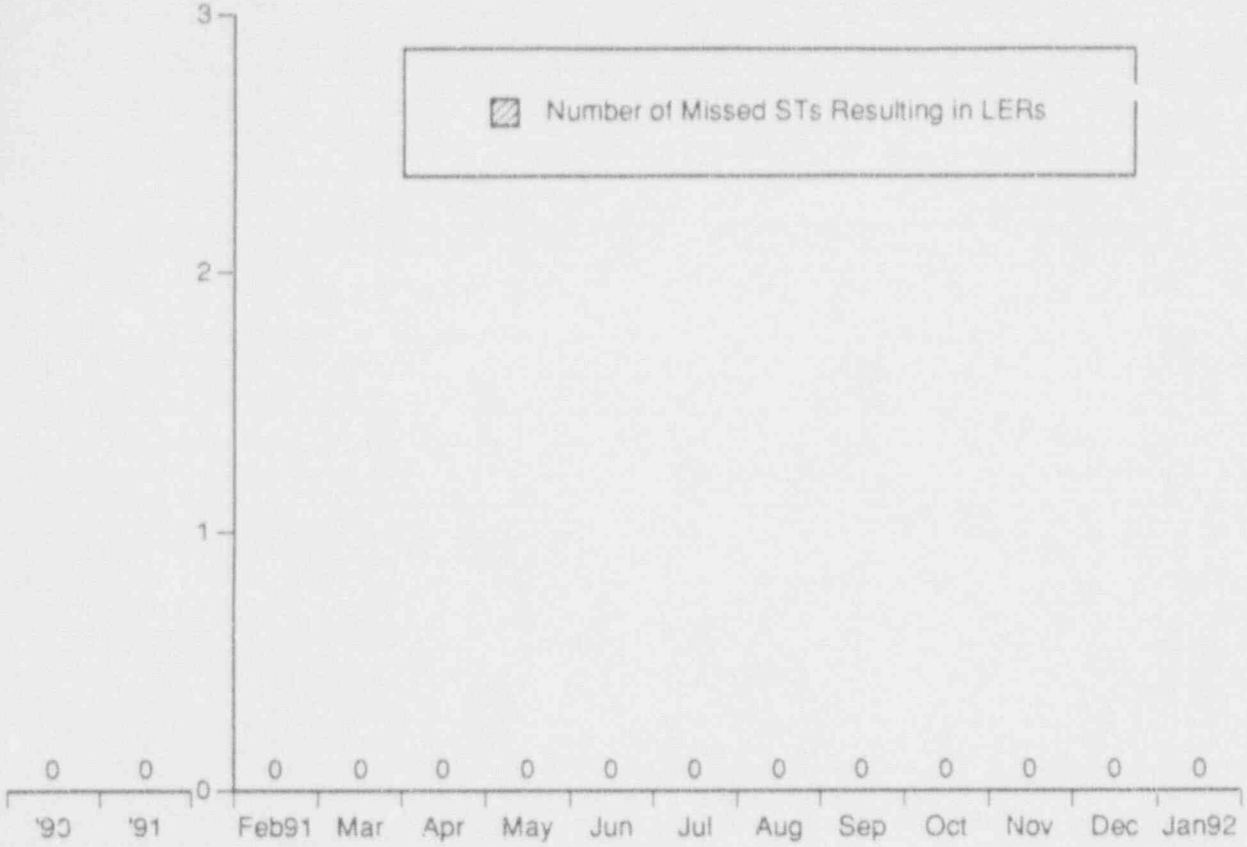
Reporting Month	Completed Scheduled Activities
Week 1	92%
Week 2	97%
Week 3	86%
Week 4	85%

Data Source: Patterson/Schmitz (Manager/Source)

Accountability: Patterson/Bobba

Adverse Trend: None

SEP 33



NUMBER OF MISSED SURVEILLANCE TESTS RESULTING IN LICENSEE EVENT REPORTS

This indicator shows the number of missed Surveillance Tests (STs) that result in Licensee Event Reports (LERs) during the reporting month. The graph on the left shows the yearly totals for the indicated years.

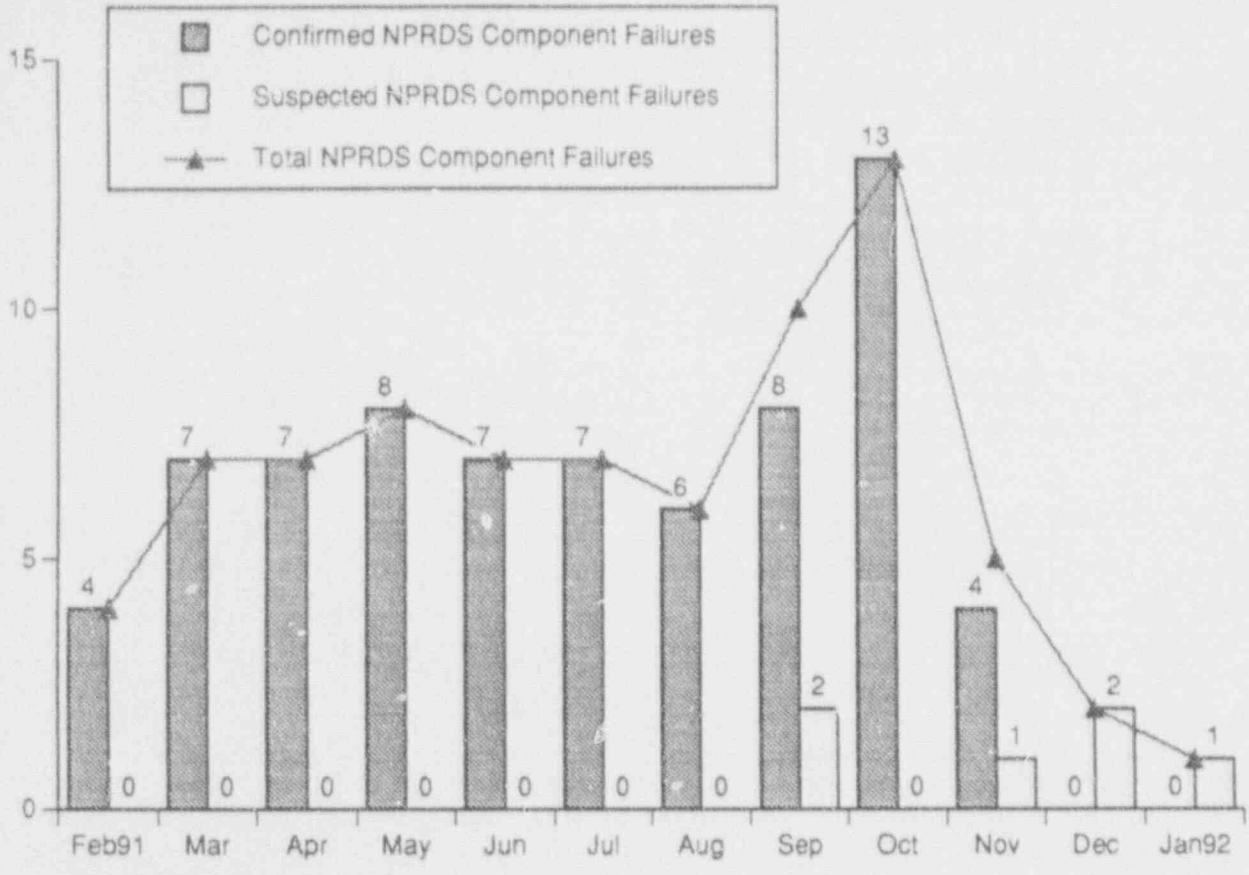
During the month of January 1992, there were no missed STs that resulted in LERs.

The 1991 & 1992 Fort Calhoun goals for this indicator are zero.

Data Source: Monthly Operating Report & Plant Licensee Event Reports (LERs)

Accountability: Patterson/Jaworski

Adverse Trend: None SEP 60 & 61



NUMBER OF NUCLEAR PLANT RELIABILITY DATA SYSTEMS (NFRDS) REPORTABLE FAILURES

This indicator shows the total number of NPRDS component failures and the number of confirmed NPRDS component failures. The total number of NPRDS component failures is based upon the number of failure reports sent to INPO. The number of confirmed NPRDS component failures is based upon the number of failure reports that have been accepted by INPO. The difference between these two figures is the number of failure reports still under review by INPO.

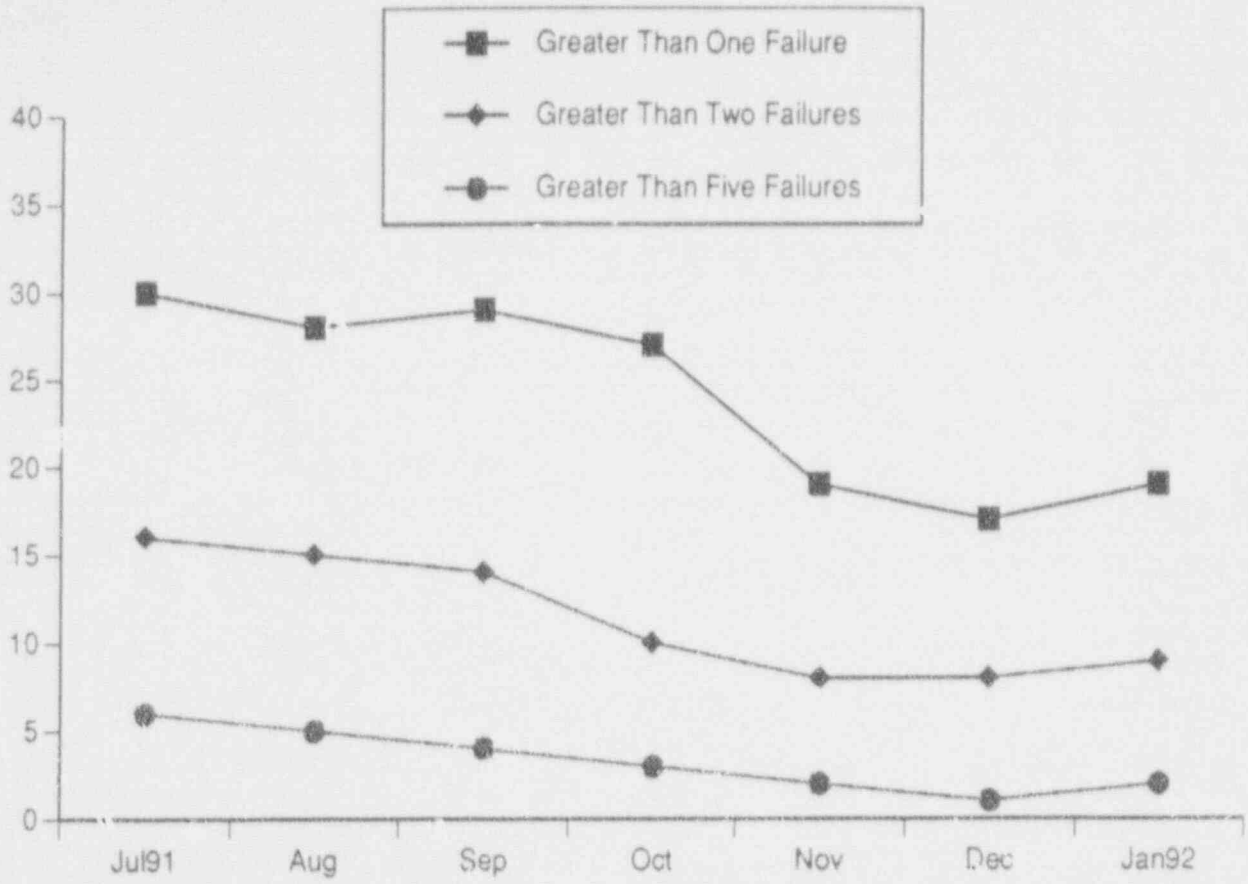
During January 1992, there were no confirmed NPRDS component failures.

The industry average for confirmed NPRDS component failures is 10 per month.

Data Source: Jaworski/Dowdy (Manager/Source)

Accountability: Jaworski/Dowdy

Adverse Trend: None

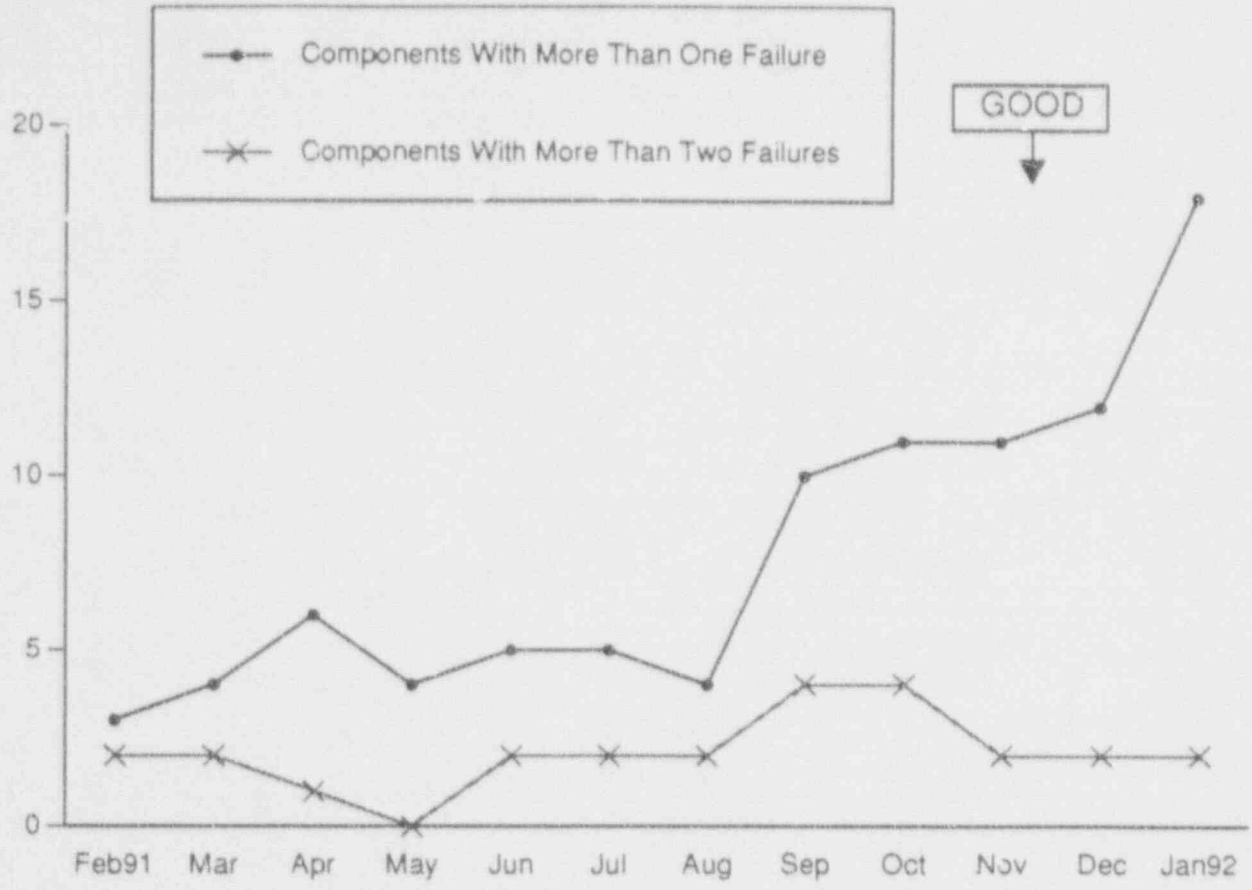


NUMBER OF NPRDS MULTIPLE FAILURES

This indicator shows the number of multiple NPRDS reportable failures over the preceding eighteen months sorted by component manufacturer and model number. The indicator is divided into three parts: manufacturer model numbers with more than one failure in eighteen months, manufacturer model numbers with more than two failures in eighteen months, and manufacturer model numbers with more than five failures in eighteen months.

During the past eighteen months, there were nineteen model types that had more than one failure in eighteen months. Nine of these had more than two failures. Two component types, Gaulin P18 pumps and Byron Jackson 28RXL pumps, had more than five failures. The model types with more than two failures are: General Electric AK-2A-25 circuit breakers (4 failures), the OSPDS (3 failures), Faulk Type Y couplings (3 failures), Byron-Jackson 28RXL pumps (7 failures), Gaulin P18 pumps (13 failures), General Electric CR120 relays (3 failures), General Electric 12HEA61 relays (3 failures), Bettis CB-4155R valve operators (3 failures) and the pressurizer (5 failures).

Data Source: Jaworski/Dowdy (Manager/Source)
Accountability: Jaworski/Dowdy
Adverse Trend: None



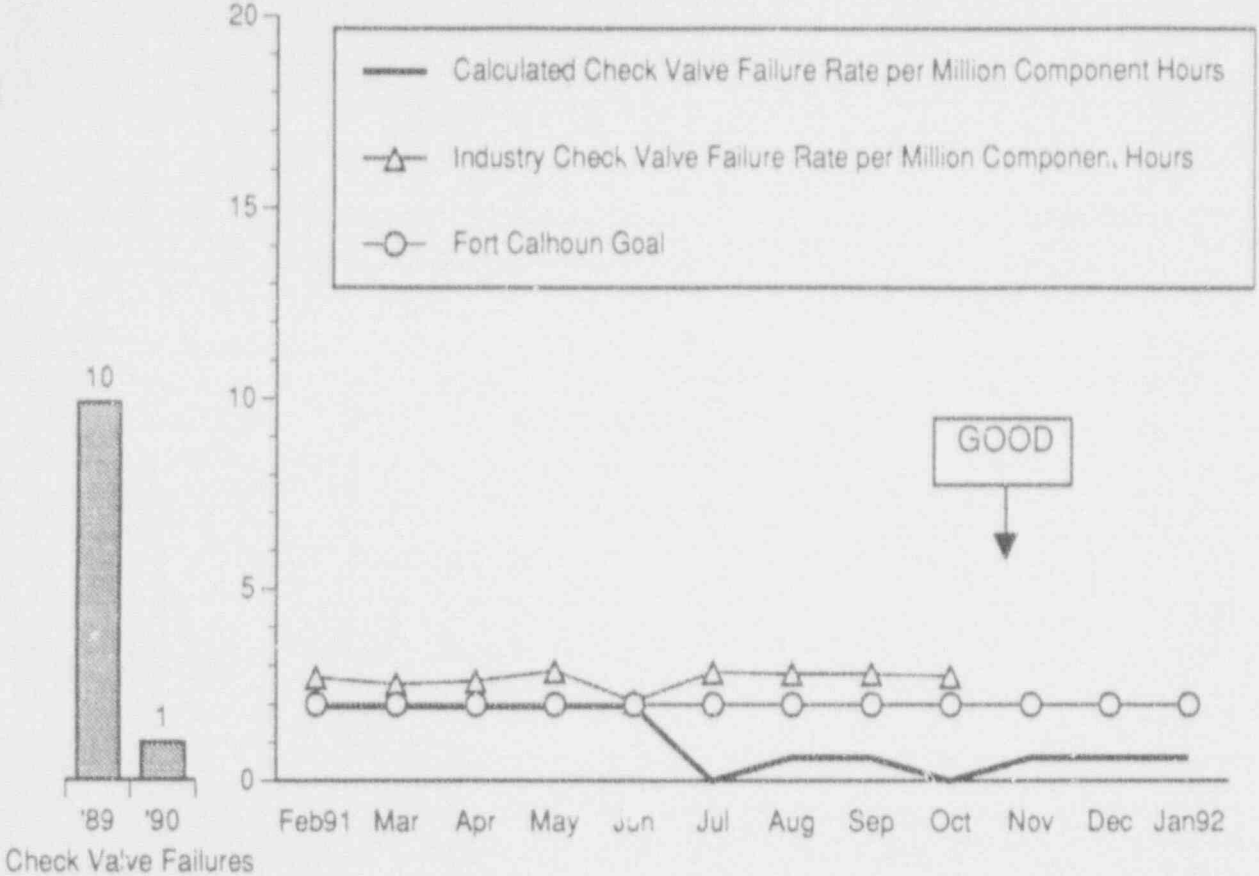
MAINTENANCE EFFECTIVENESS

The Maintenance Effectiveness Indicator was developed following guidelines set forth by the Nuclear Regulatory Commission's Office for Analysis and Evaluation of Operational Data (NRC/AEOD). The NRC/AEOD is currently developing and verifying a maintenance effectiveness indicator using the Nuclear Plant Reliability Data System (NPRDS) component failures.

This indicator has been revised to show the number of NPRDS components with more than one failure during the last eighteen months and the number of NPRDS components with more than two failures during the last eighteen months. The number of NPRDS components with more than two failures in an eighteen month period should indicate the effectiveness of plant maintenance. (This change applies only to the September 19[illegible] through January 1992 data. The data for February through August 1991 is based on a twelve month interval.)

During the last 18 reporting months there were 18 NPRDS components with more than 1 failure. 2 of the 18 had more than two failures. The tag numbers of the components with more than two failures are CH-1A and CH-1B.

Data Source: Jaworski/Dowdy (Manager/Source)
Accountability: Patterson/Bobba
Adverse Trend: None



CHECK VALVE FAILURE RATE

This indicator shows the Fort Calhoun check valve failure rate, the Fort Calhoun goal and the industry check valve failure rate. This rate is based upon failures during the previous 18 months. The check valve failures at Fort Calhoun Station, for the previous two years, are shown on the left.

The data for the industry check valve failure rate is three months behind the reporting month due to the time involved in collecting and processing the data.

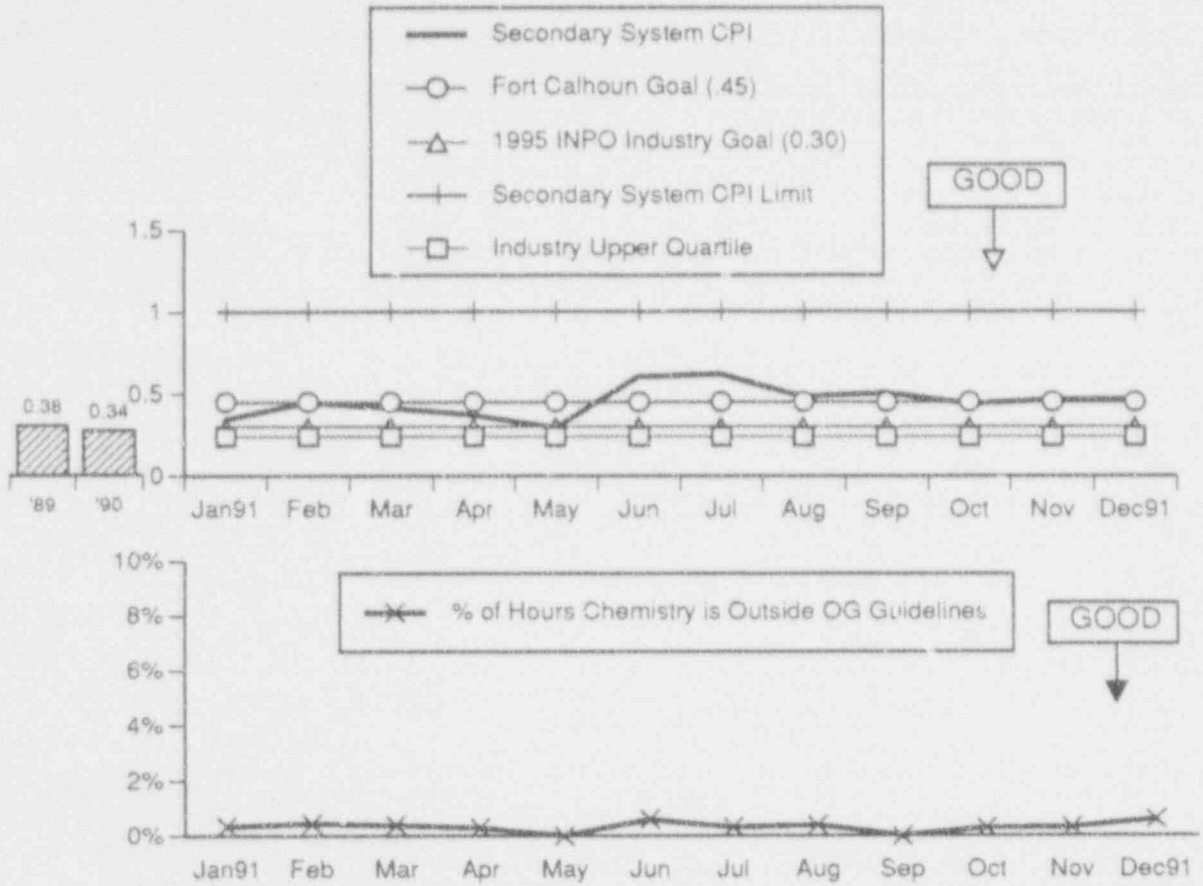
For October 1991, the Fort Calhoun Station reported an actual check valve failure rate of 6.07 E-7, while the industry reported an actual failure rate of 2.75 E-6. At the end of January 1992, the Fort Calhoun Station reported a calculated check valve failure rate of 6.07 E-7.

The 1992 Fort Calhoun goal for this indicator is a failure rate of 2.00 E-6.

Data Source: Jaworski/Dowdy (Manager/Source)

Accountability: Jaworski/Rollins

Adverse Trend: None SEP 43



SECONDARY SYSTEM CHEMISTRY

The top graph, Secondary System Chemistry Performance Index (CPI), is calculated using the following three parameters: cation conductivity in steam generator blowdown, sodium in steam generator blowdown, and condensate pump discharge dissolved oxygen. The bottom graph shows the percent of total hours of 13 parameters exceeding the Owners Group (OG) guidelines during power operation.

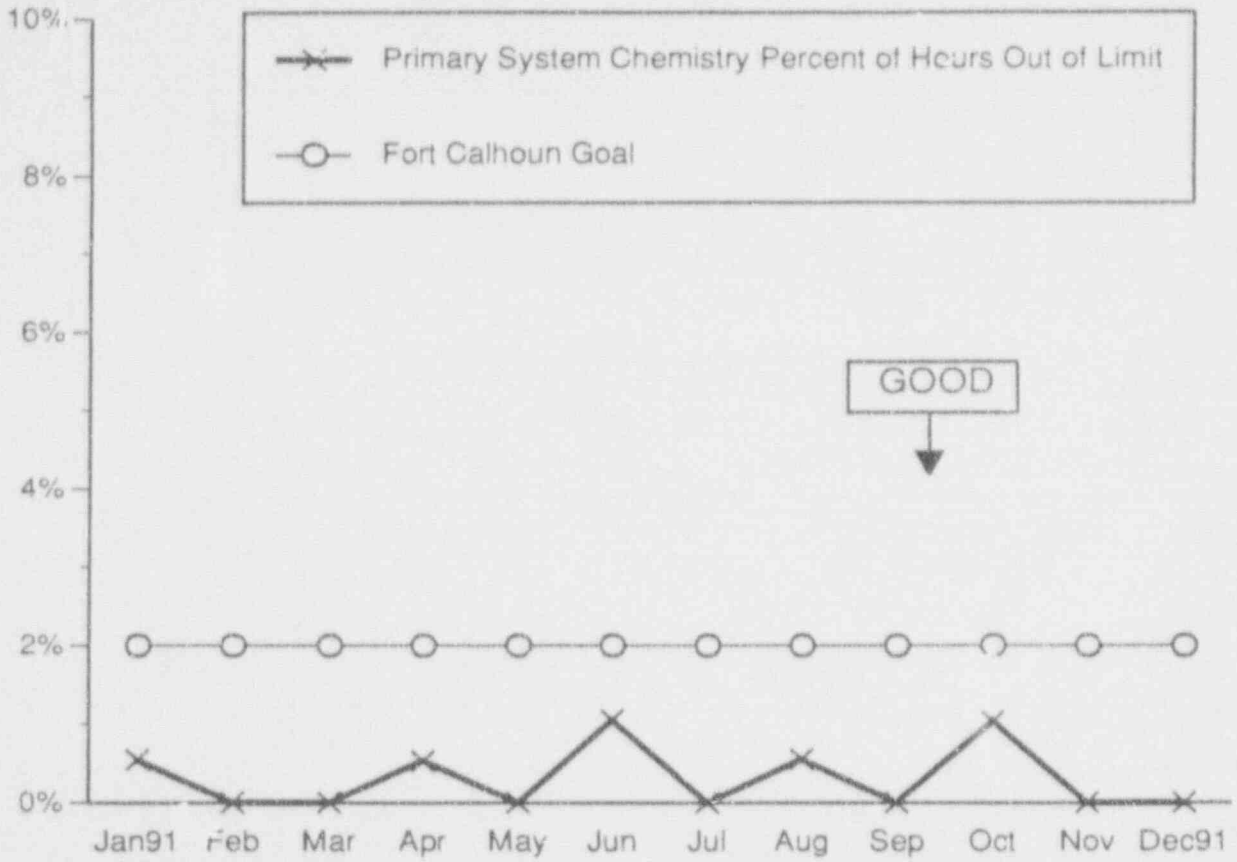
The 1991 Fort Calhoun goal for the CPI is 0.45. The INPO 1995 Industry goal is 0.30. The CPI was reported as 0.464 for the month of December 1991. The industry upper quartile value for this indicator was 0.16 for August 1989 through Dec. 1989. The CPI industry value then changed to 0.24 for 1990.

The percent of hours outside the OG guidelines was reported as 0.60% for the month of December. The above two chemistry indicators are one month behind the reporting month due to the time needed for collection and evaluation of the station chemistry data.

Data source: Franco/Glantz (Manager/Source)

Accountability: Patterson/Schmidt

Adverse Trend: None



PRIMARY SYSTEM CHEMISTRY PERCENT OF HOURS OUT OF LIMIT

The Primary System Chemistry - Percent of Hours Out of Limit indicator tracks the primary system chemistry performance by monitoring six key chemistry parameters. Typically, lithium is the parameter that is out of limit. 100% equates to all six parameters being out of limit for the month. This indicator is one month behind the reporting month.

The 1991 Fort Calhoun goal for this indicator is 2%.

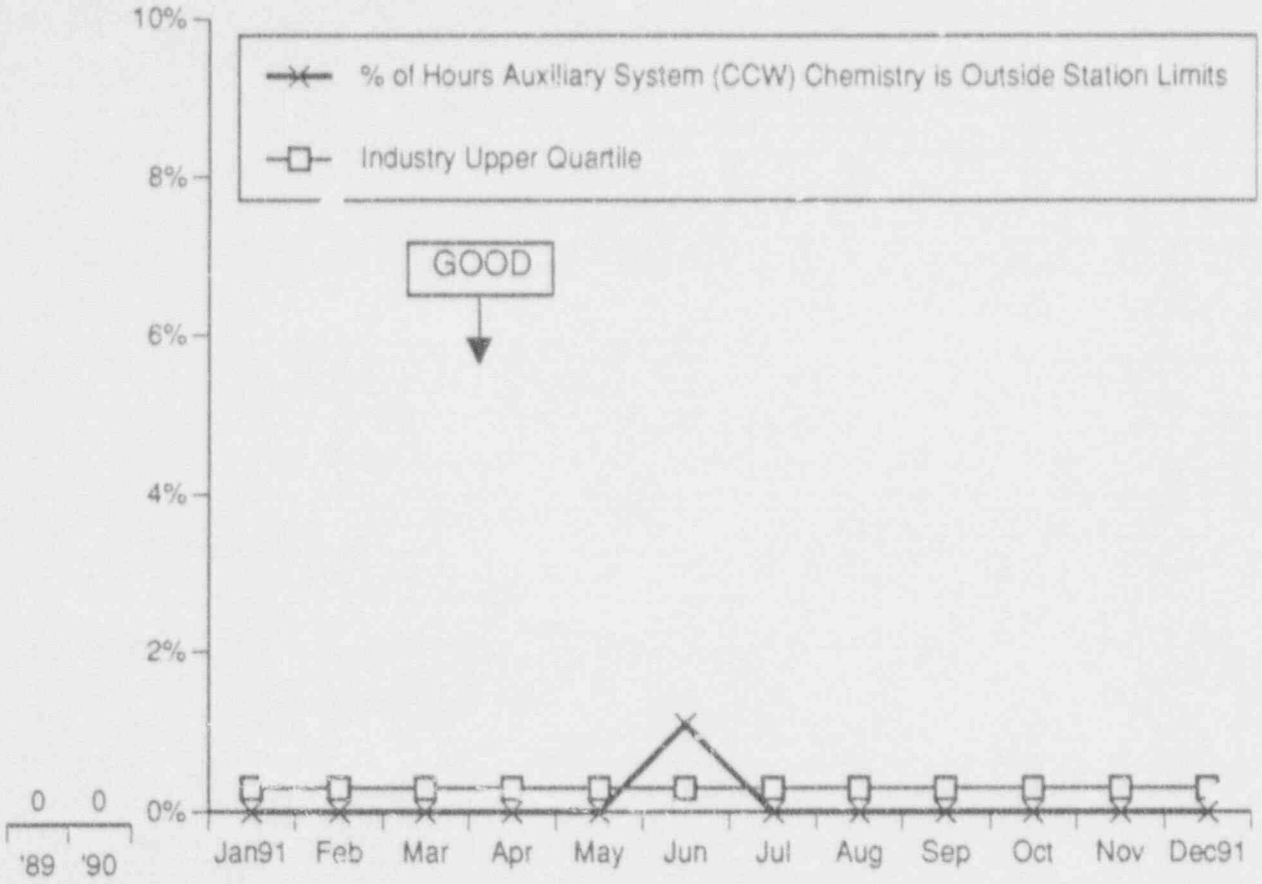
The Primary System Chemistry Percent of Hours Out of Limit was reported as 0% for the month of December 1991.

A plant outage in November and December 1990 resulted in a higher percentage of hours out of limit.

Data Source: Franco/Glantz (Manager/Source)

Accountability: Patterson/Smith

Adverse Trend: None



AUXILIARY SYSTEM (CCW) CHEMISTRY PERCENT OF HOURS OUTSIDE STATION LIMITS

The Auxiliary System Chemistry Percent of Hours Outside Station Limits indicator tracks the monthly hours that the Component Cooling Water (CCW) system is outside the station chemistry limit. The above chemistry indicator is one month behind the reporting month due to the time needed for data collection and evaluation of the chemistry data for the station.

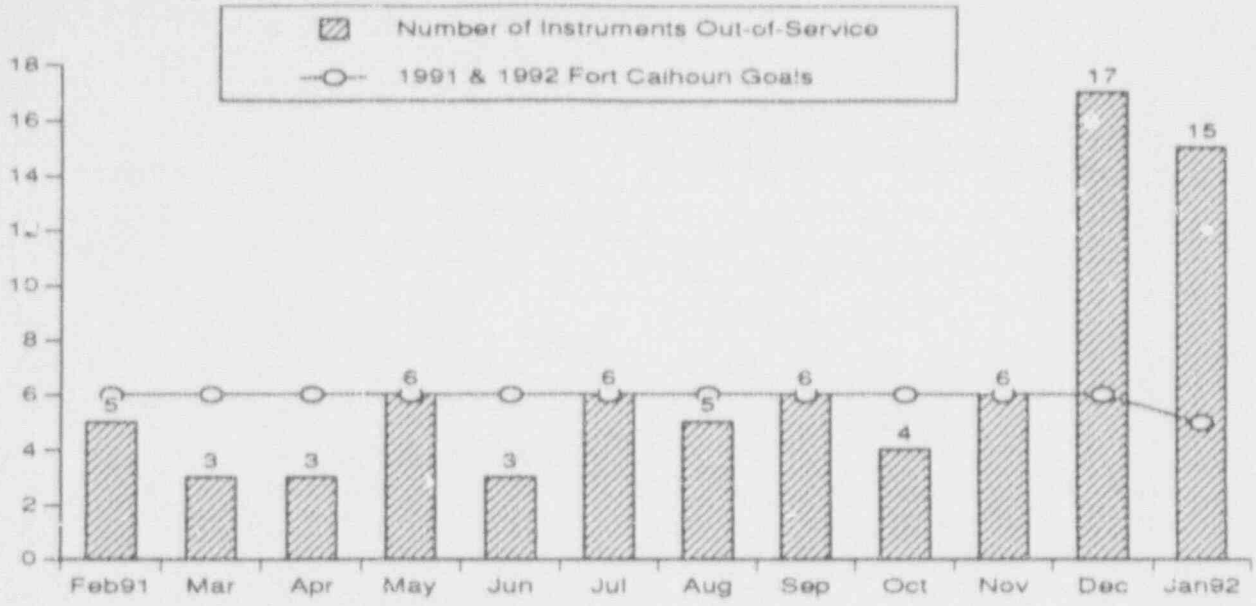
The auxiliary system chemistry percent of hours outside station limits was reported as 0% for the month of December 1991. The last out of station limits condition occurred in June and was due to a low nitrite level in CCW coolant.

The 1991 Fort Calhoun goal for this indicator is a maximum of 2%.

Data Source: Franco/Glantz (Manager/Source)

Accountability: Patterson/Smith

Adverse Trend: None



IN-LINE CHEMISTRY INSTRUMENTS OUT-OF-SERVICE

This indicator shows the total number of in-line chemistry system instruments that are out-of-service at the end of the reporting month. The chemistry systems involved in this indicator include the Secondary System and the Post Accident Sampling System (PASS).

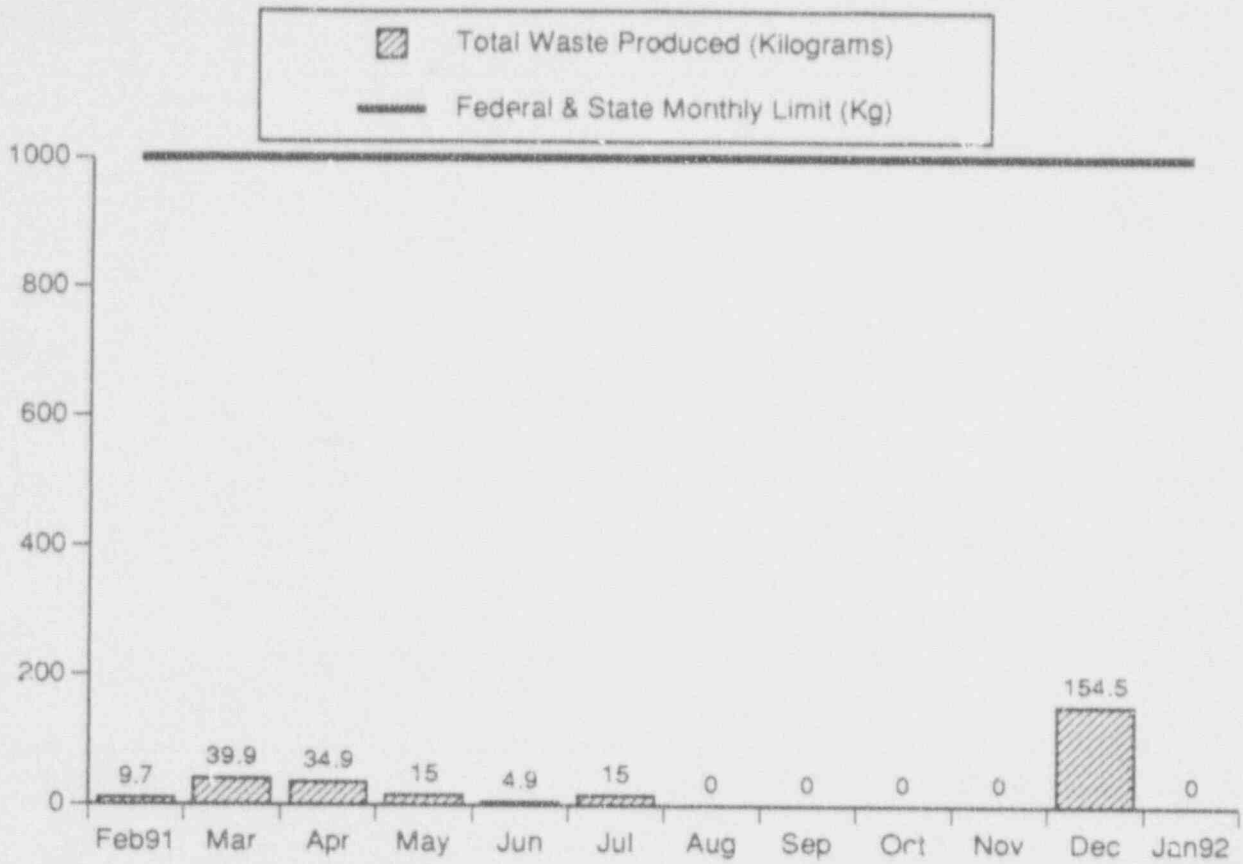
At the end of December there was a total of 17 in-line chemistry instruments that were out-of-service. Of these 17 instruments, 13 were from the Secondary System and 4 were from PASS.

The increase in the PASS instruments out of service is due to removal of the germanium detectors from service while construction is being done in the old chemistry lab.

The increase in Secondary instruments out of service is due to a new method of determining if an instrument is out of service. As of this reporting period, the entire instrument channel is considered inoperative if: 1) the instrument is inoperative, 2) the chart recorder associated with the instrument is inoperative, 3) the alarm function associated with the instrument is inoperative. This change is being made because if any of the functions named above are not operational, then the instrument is not performing its intended function.

The 1992 Fort Calhoun goal for the number of in-line chemistry system instruments that are out-of-service has been set at 5. Six out-of-service chemistry instruments make up 10% of all the chemistry instruments that are counted for this indicator.

Data Source: Patterson/Renaud (Manager/Source)
Accountability: Patterson/Jaworski
Adverse Trend: None



HAZARDOUS WASTE PRODUCED

This indicator shows the total amount of hazardous waste produced by Fort Calhoun each month. This hazardous waste consists of non-halogenated hazardous waste, halogenated hazardous waste, and other hazardous waste produced.

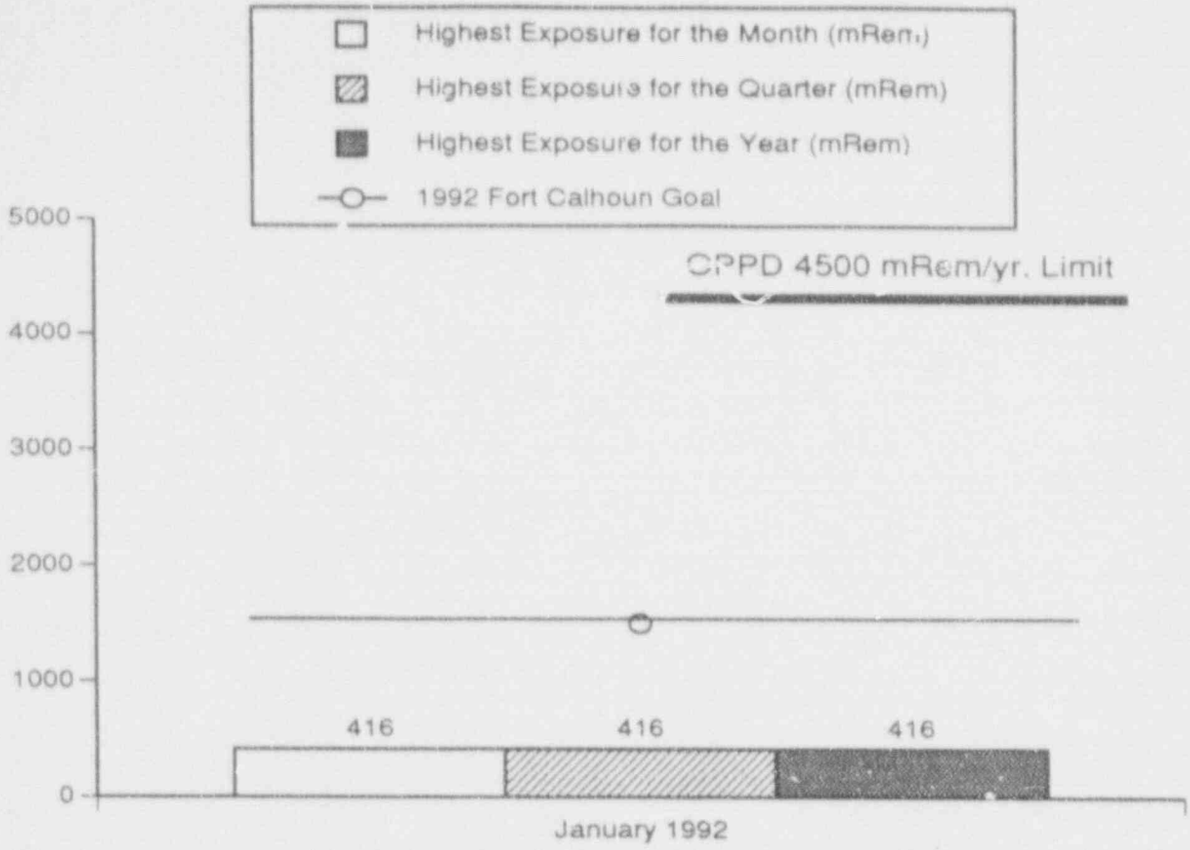
During the month of January 1992, 0.0 kilograms of non-halogenated hazardous waste was produced, 0.0 kilograms of halogenated hazardous waste was produced, and 0.0 kilograms of other hazardous waste was produced.

The amount of halogenated hazardous waste increased in December because of a change in the method of record keeping. Hazardous waste is no longer counted on a monthly basis. It is counted based upon a full drum of waste.

Date Source: Patterson/Henning (Manager/Source)

Accountability: Patterson/Henning

Adverse Trend: None



MAXIMUM INDIVIDUAL RADIATION EXPOSURE

During January 1992, an individual accumulated 416 mRem which was the highest individual exposure for the month.

The maximum individual exposure to date for the first quarter of 1992 was 416 mRem.

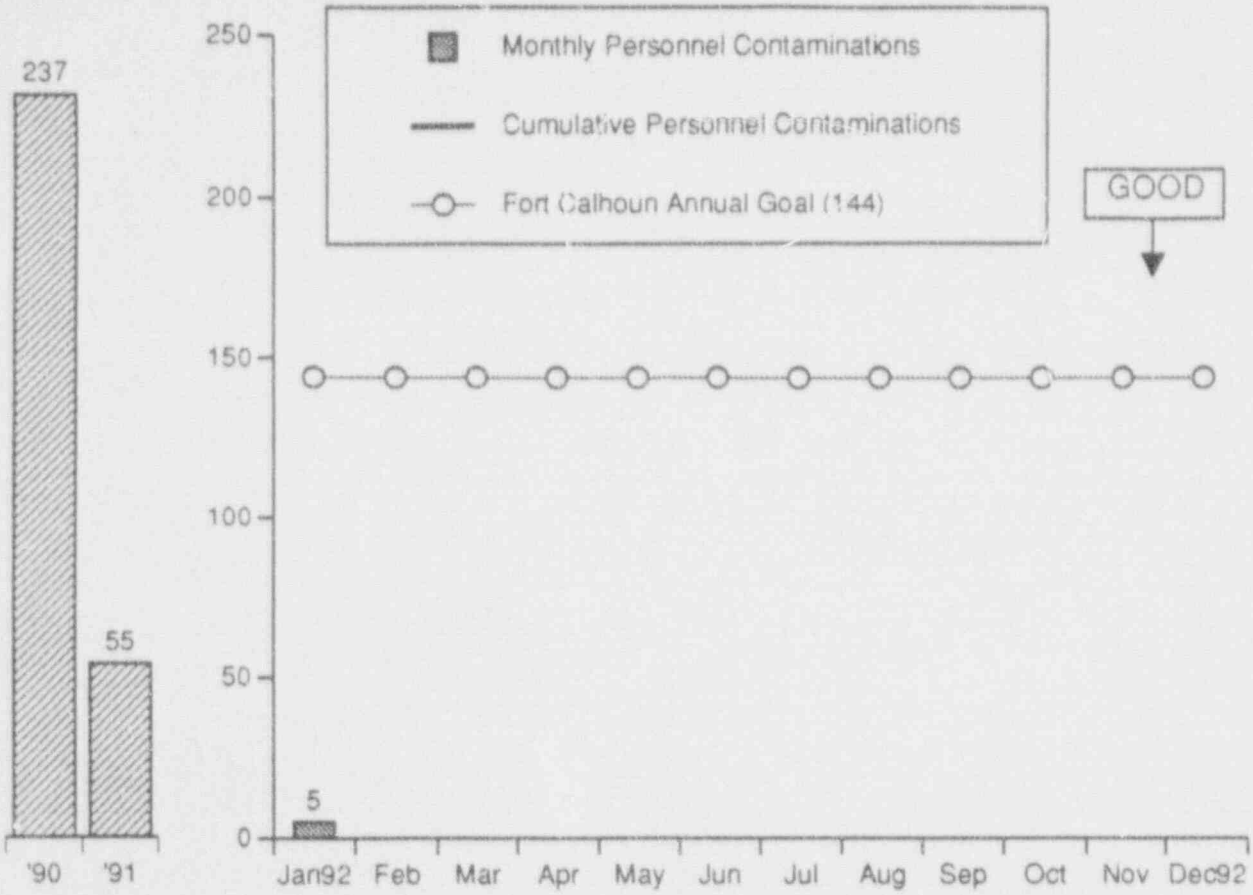
The maximum individual exposure reported for the year 1992 was 416 mRem.

The OPPD limit for the maximum yearly individual radiation exposure is 4,500 mRem/year. The 1992 Fort Calhoun goal is 1,500 mRem/year.

Date Source: Patterson/Williams (Manager/Source)

Accountability: Patterson/Lovett

Adverse Trend: None



TOTAL SKIN AND CLOTHING CONTAMINATIONS

This indicator shows the number of skin and clothing contaminations for the reporting month. A total of 5 contaminations have occurred during 1992.

There was a total of 55 skin and clothing contaminations in 1991.

There was a total of 237 skin and clothing contaminations in 1990.

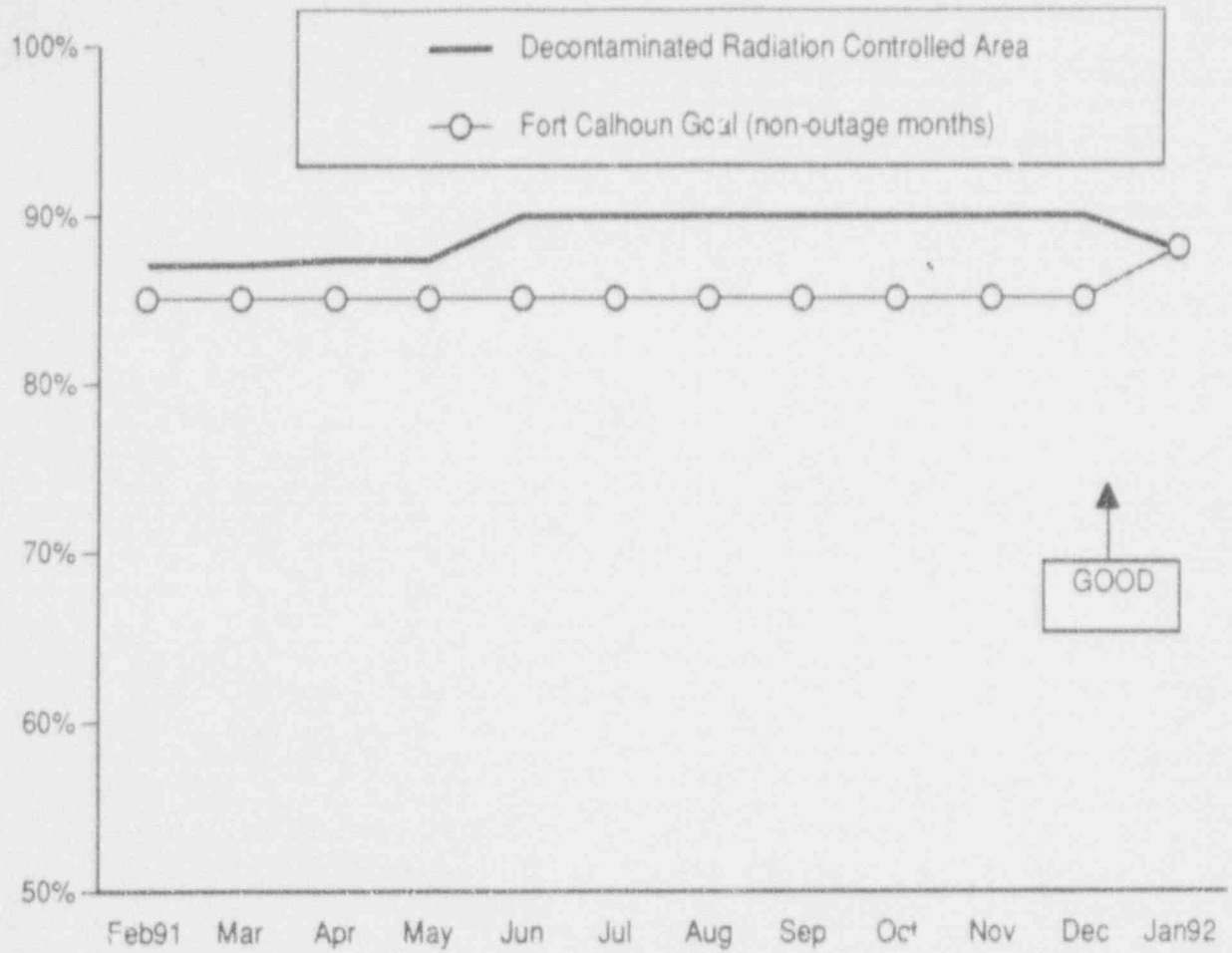
The 1992 goal for skin and clothing contaminations is 144.

Data Source: Patterson/Williams (Manager/Source)

Accountability: Patterson/Lovett

Adverse Trend: None

SEP 15 & 54



DECONTAMINATED RADIATION CONTROLLED AREA

This indicator shows the percentage of the RCA that is decontaminated (clean) based on the total square footage, a 1991 Fort Calhoun goal of 85% decontaminated RCA for non-outage months and a 1992 goal of 88% decontaminated RCA for non-outage months.

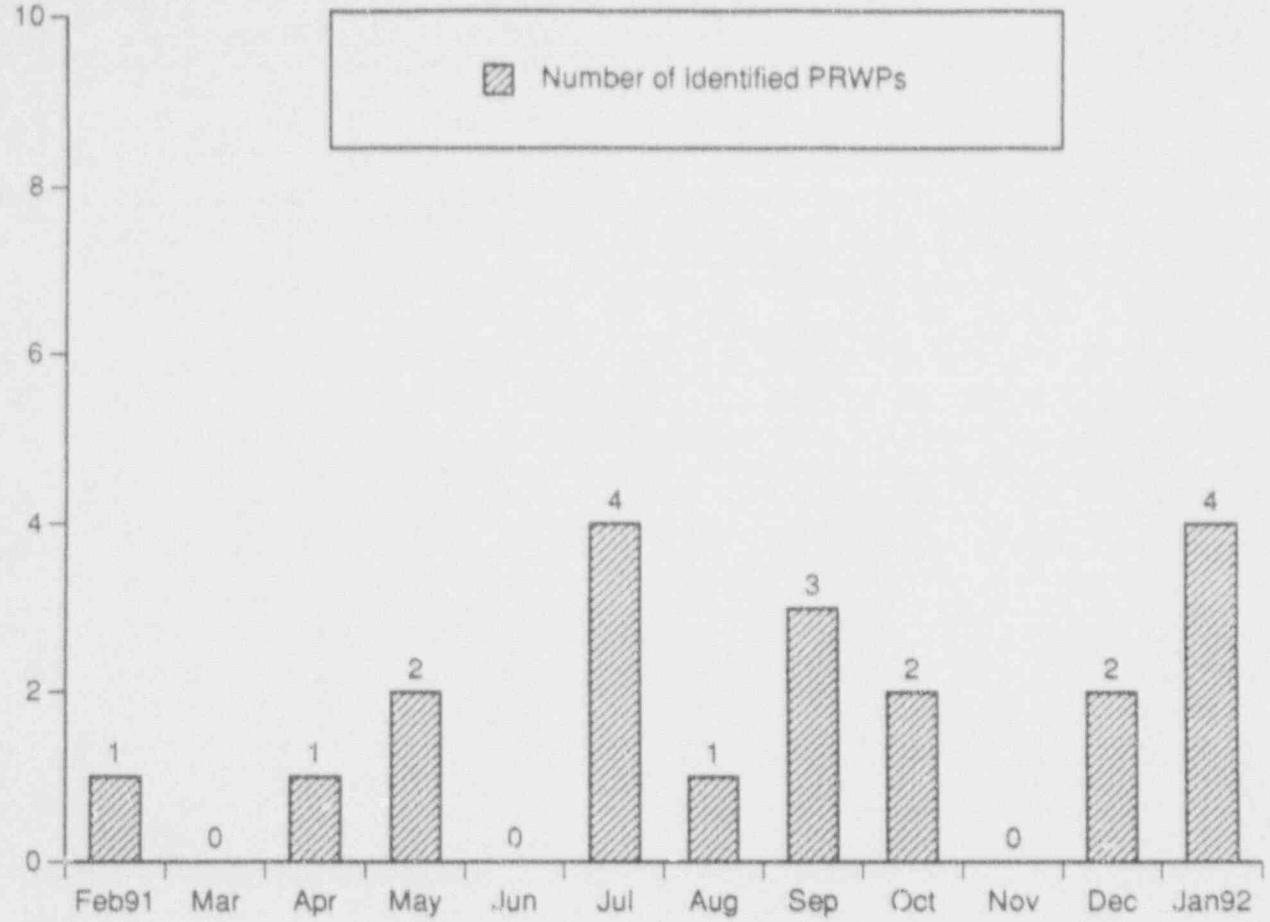
At the end of the reporting month, 87.8% of the total square footage of the RCA was decontaminated.

Date Source: Patterson/Gundal (Manager/Source)

Accountability: Patterson/Lovett

Adverse Trend: None

SEP 54



RADIOLOGICAL WORK PRACTICES PROGRAM

The Radiological Work Practices Program Indicator shows the number of Poor Radiological Work Practices (PRWPs) which were identified during the reporting month. The PRWPs are identified through a review of the monthly Radiological Occurrence Reports and Personnel Contamination Reports.

The number of PRWPs which are identified each month should indirectly provide a means to qualitatively assess supervisor accountability for their workers' radiological performance.

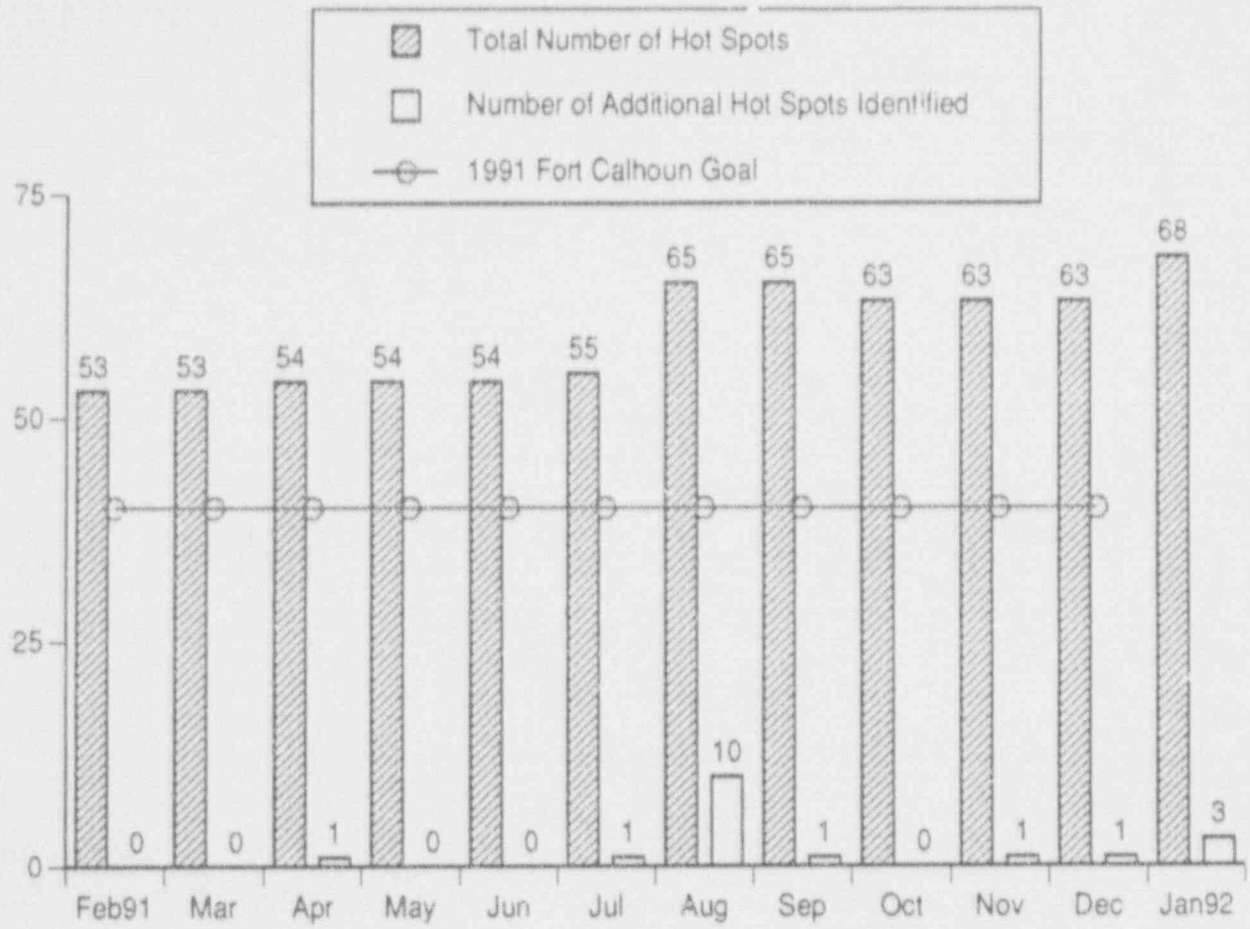
During the month of January 1992, four PRWPs were identified. The PRWPs were all personnel contaminations.

Data Source: Patterson/Williams (Manager/Source)

Accountability: Patterson/Lovett

Adverse Trend: None

SEP 52



NUMBER OF HOT SPOTS

This indicator shows the total number of hot spots which have been identified to exist in the Fort Calhoun Station and have been documented through the use of a hot spot identification sheet. A hot spot is defined as a small localized source of high radiation. A hot spot occurs when the contact dose rate of an item or piece of equipment is at least 5 times the General Area dose rate and the item or piece of equipment's dose rate is equal to or greater than 100 mRem/hour.

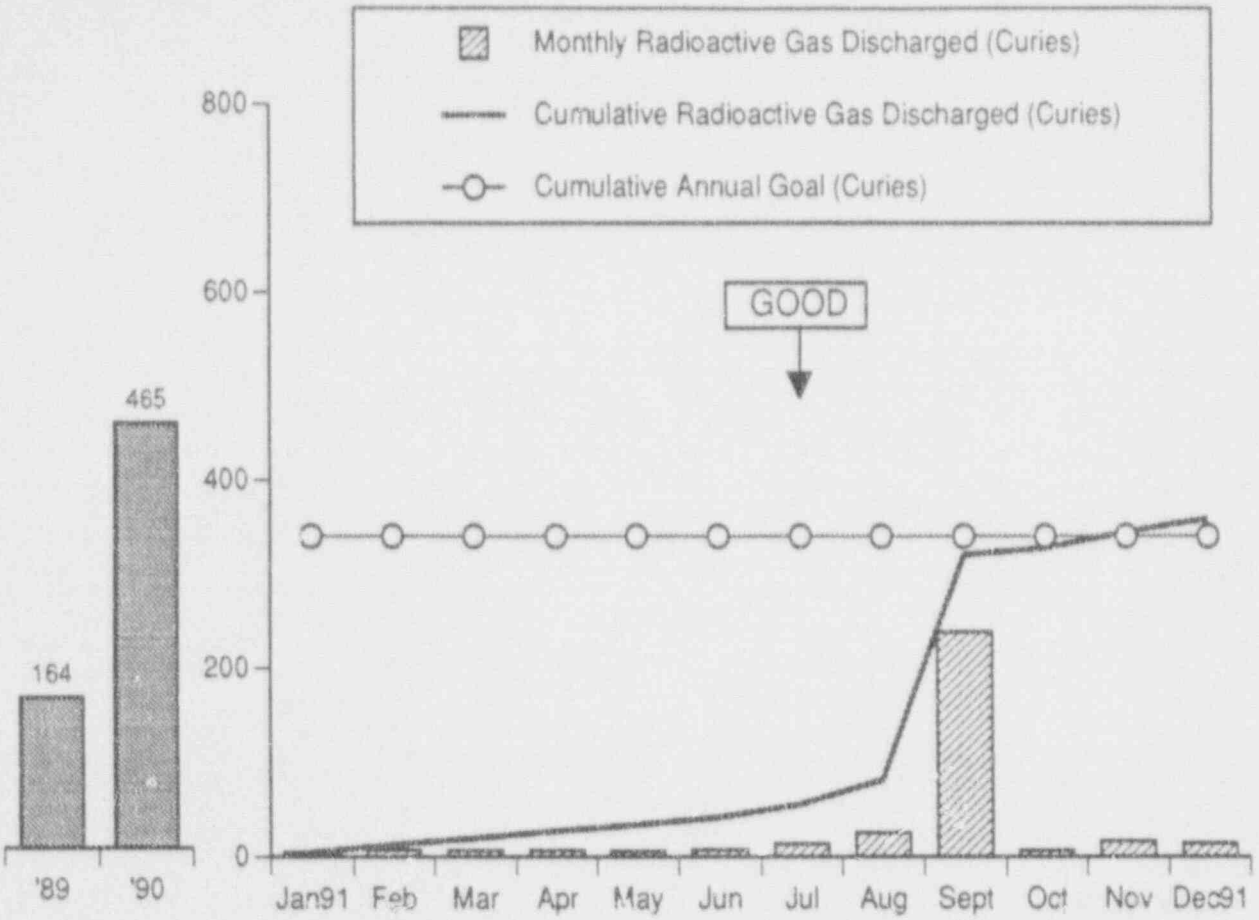
During January 1992 one hot spot was eliminated in an elbow in Room 59. Of the 68 total hot spots reported this month, 42 are considered permanent, there are plans to remove 20, and 2 are under evaluation for removal.

The 1992 Fort Calhoun goal is to resolve one hot spot per month.

Date Source: Patterson/Williams (Manager/Source)

Accountability: Patterson/Lovett

Adverse Trends: None



GASEOUS RADIOACTIVE WASTE BEING DISCHARGED TO THE ENVIRONMENT.

The gaseous radioactive waste being discharged to the environment is shown for January 1, 1991 through December 31, 1991. A total of 358.5 curies have been released to the environment during this time.

In September, 238.236 curies of gaseous radioactive waste was released to the environment due to containment purges required during the unscheduled maintenance outage. Most of the radioactive waste was released in the form of Xenon-133.

The Fort Calhoun Station cumulative annual goal for 1991 is 340 curies for this indicator.

The gaseous radioactive waste being discharged to the environment is calculated every six months.

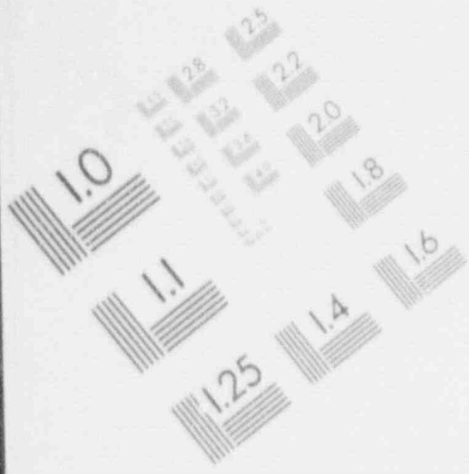
Date Source: Franco/Krist (Manager/Source)

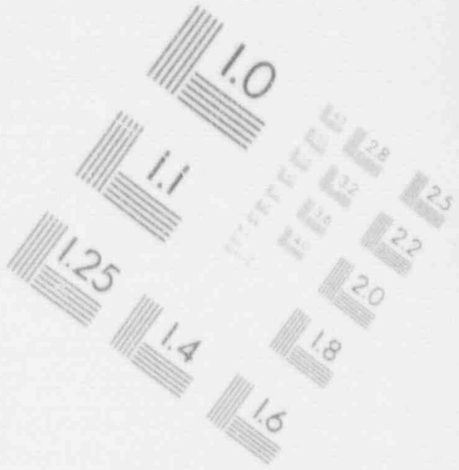
Accountability: Patterson/Trausch

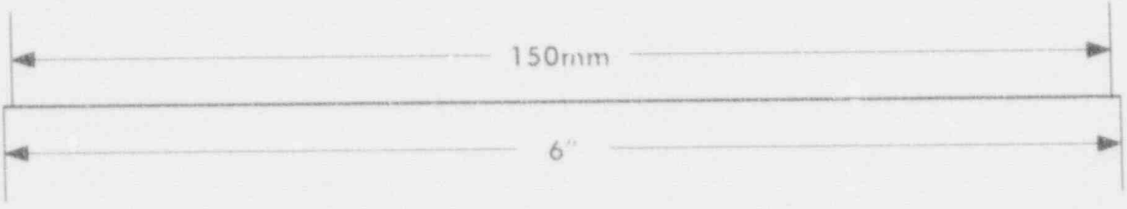
Adverse Trend: None

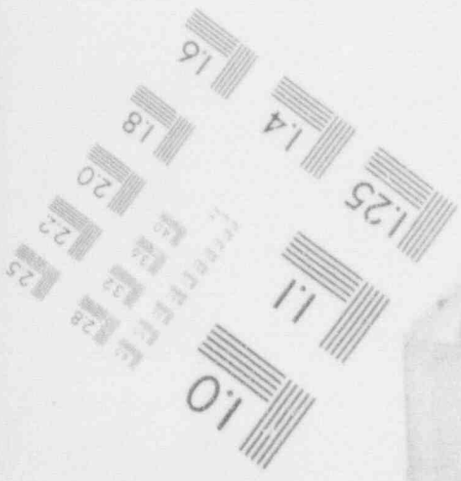
1

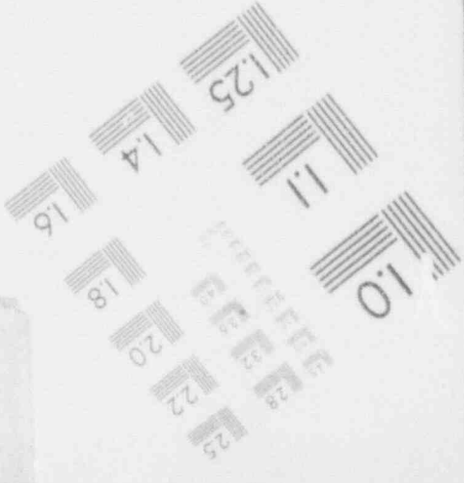
IMAGE EVALUATION TEST TARGET (MT-3)

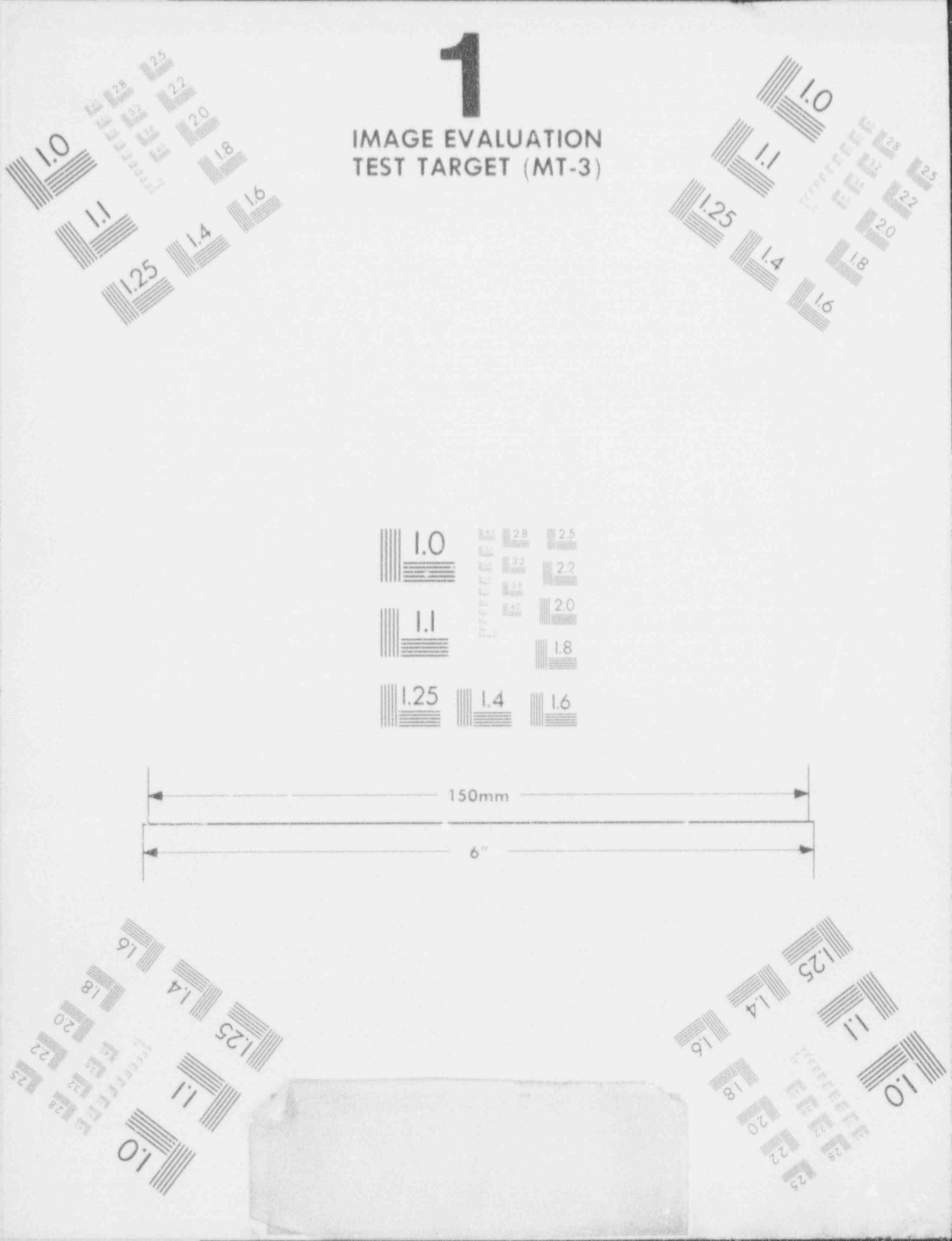






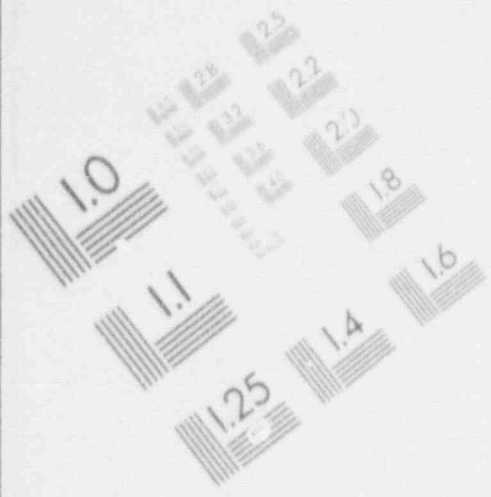


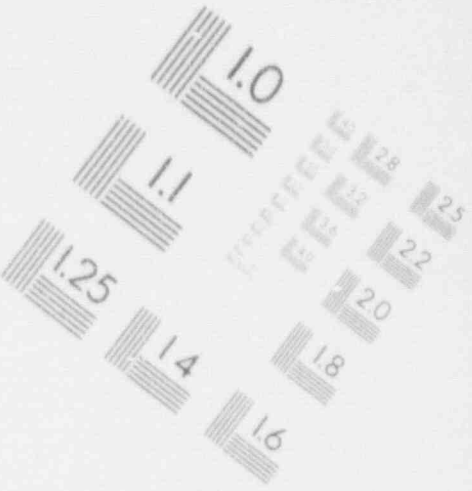


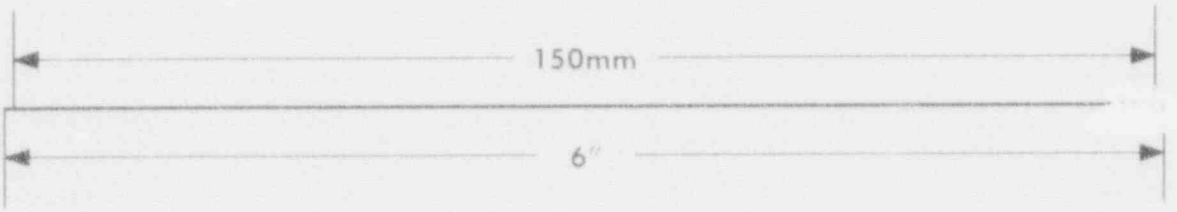

1
IMAGE EVALUATION
TEST TARGET (MT-3)
1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
150mm
6"

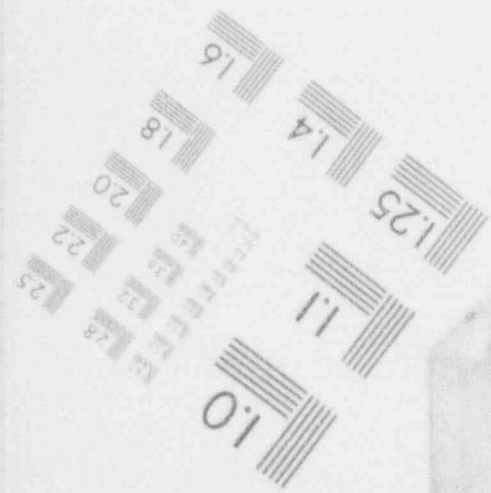
1

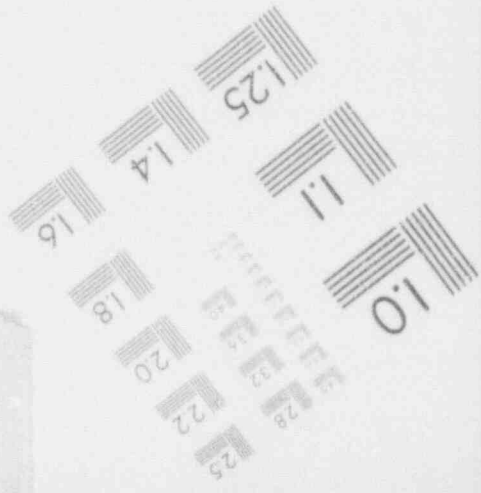
IMAGE EVALUATION TEST TARGET (MT-3)

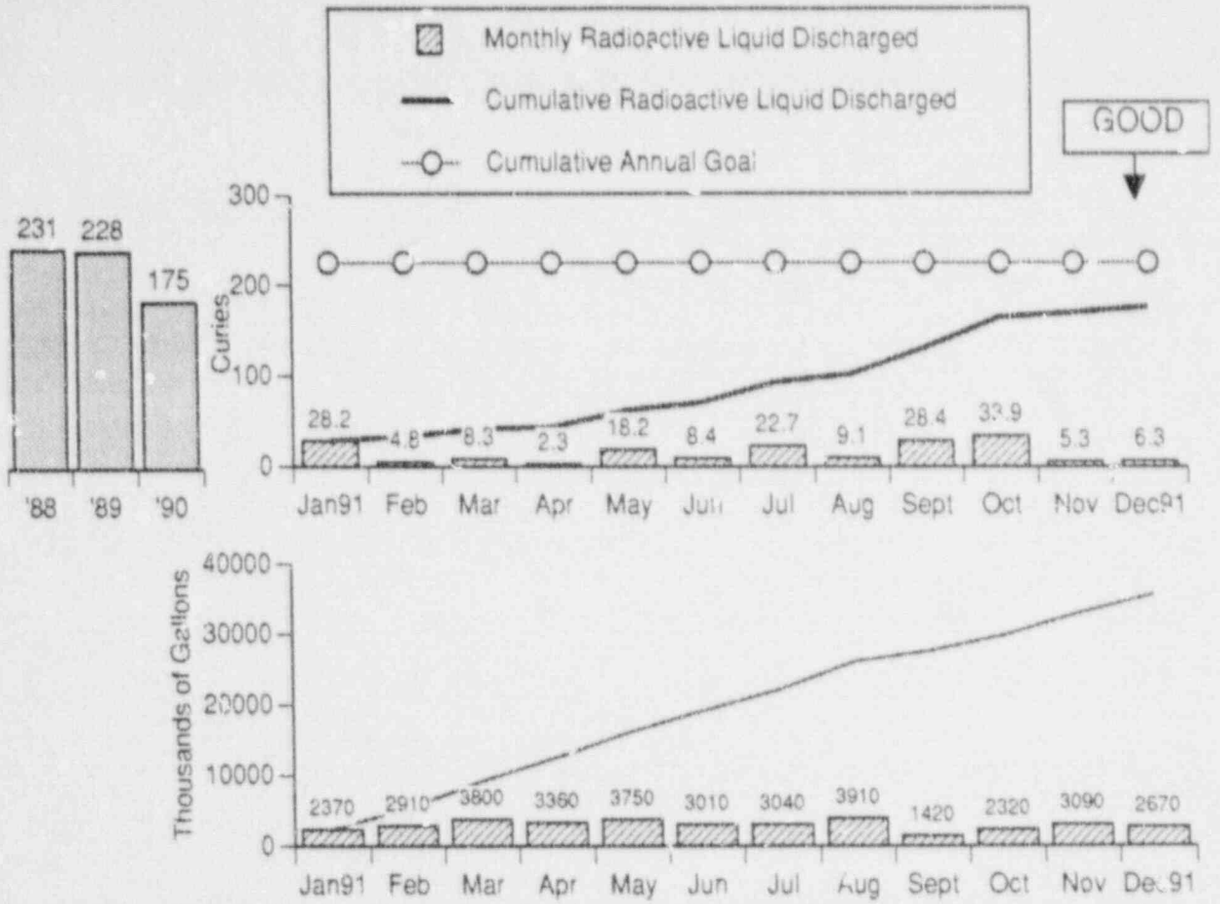












LIQUID RADIOACTIVE WASTE BEING DISCHARGED TO THE ENVIRONMENT

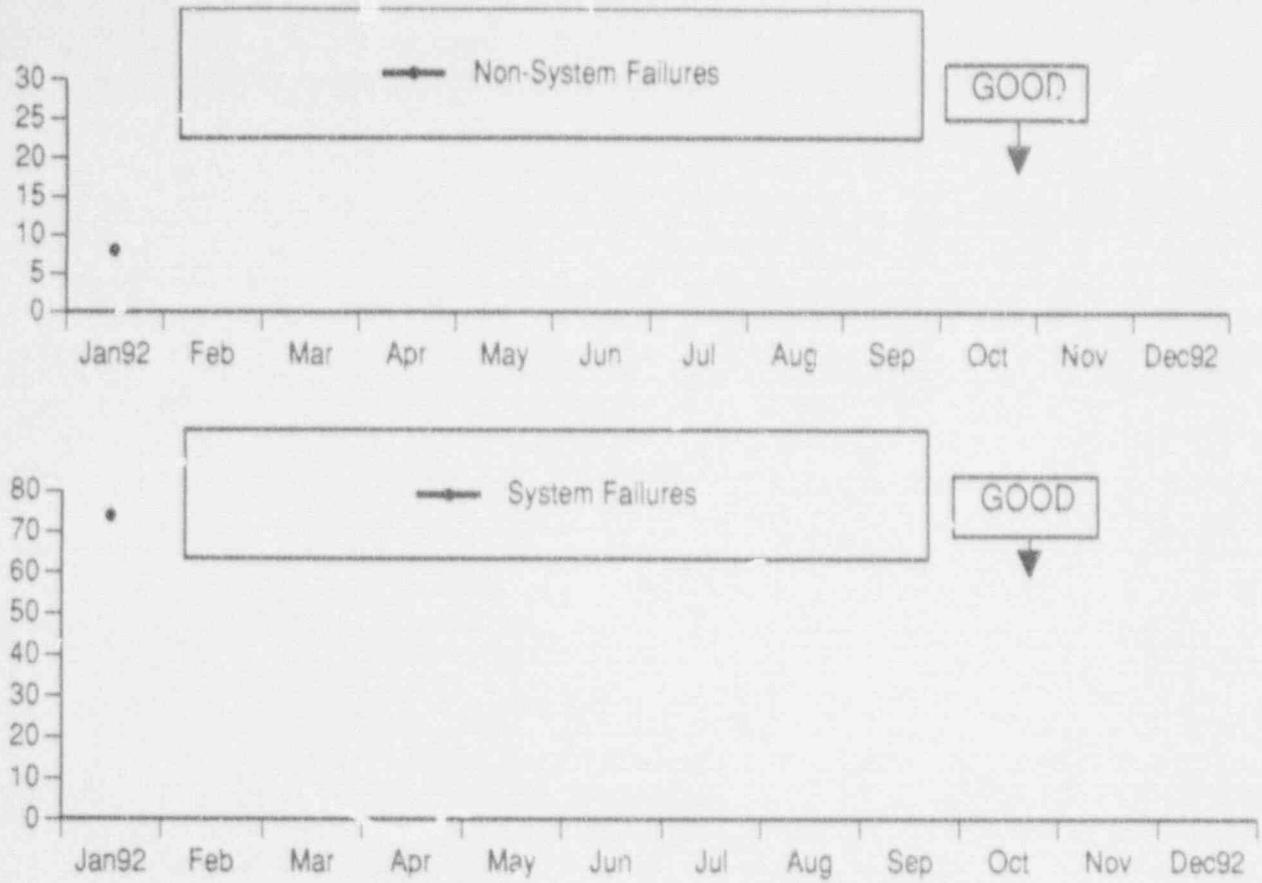
The liquid radioactive waste being discharged to the environment is shown for January 1, 1991 through December 31, 1991. The liquid radioactive waste that was discharged to the environment from all sources totaled 176.1 curies during this time. The Fort Calhoun Station cumulative annual goal for 1991 is 225 curies.

The bottom graph shows the volume of liquid radioactive waste that has been released from the radioactive waste monitor tanks and steam generators. The volume of liquid radioactive waste discharged to the environment from the radioactive waste monitor tanks and the steam generators totaled 35.7 million gallons from January through December 1991. The liquid radioactive waste that was released to the environment includes liquid released from the steam generators due to the fact that radioisotopes were detected in the steam generator blowdown. The liquid radioactive waste being discharged to the environment is calculated every six months.

Data Source: Franco/Krist (Manager/Source)

Accountability: Patterson/Lovett

Positive Trend



LOGGABLE/REPORTABLE INCIDENTS (SECURITY)

The Loggable/Reportable Incidents (Security) Indicator is depicted in two separate graphs. The first graph depicts the total number of loggable/reportable non-system failures concerning Security Badges, Access Control and Authorization, and Security Force Error, and Unsecured Doors. The bottom graph shows the total number of loggable/reportable incidents concerning system failures which occurred during the reporting month.

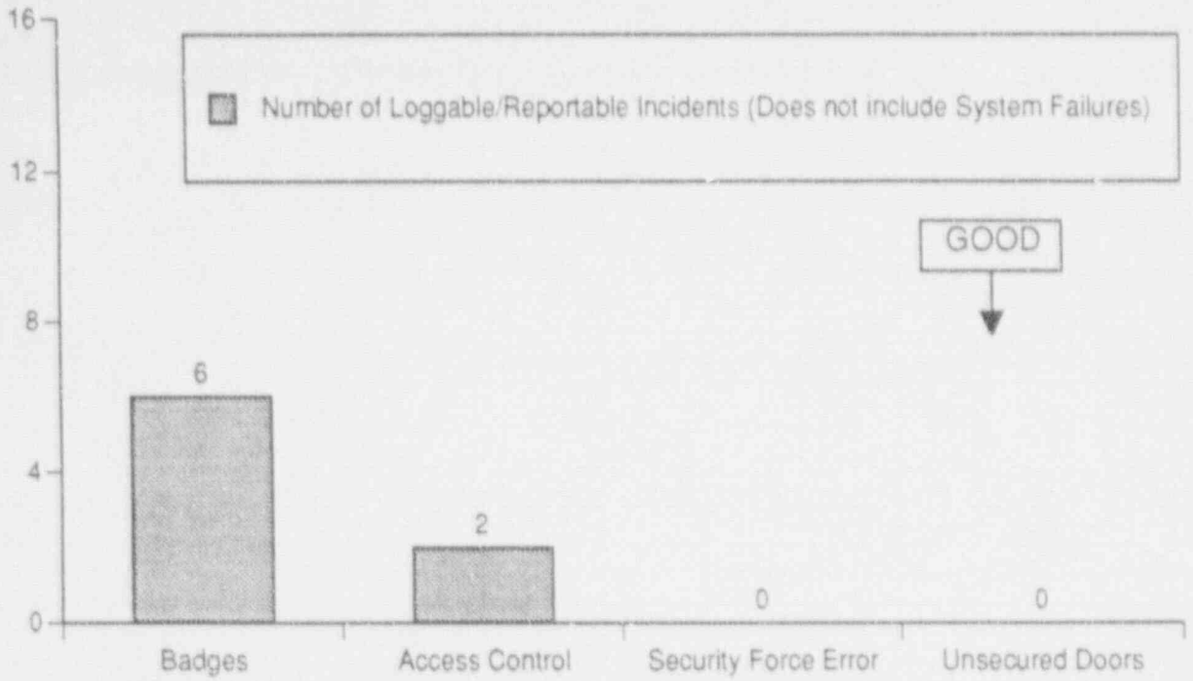
During the month of January 1992, there were 82 loggable/reportable incidents identified. System failures accounted for 74 (90%) of the loggable/reportable incidents, and 37 (45%) of these were environmental failures. The 8 loggable non-system related incidents involved 2 incidents where plant personnel failed to follow proper escort procedures and 6 lost/unattended security badges.

Data Source: Sefick/Woerner (Manager/Source)

Accountability: Sefick

Adverse Trend: None

SEP 58



SECURITY NON-SYSTEM FAILURES

This indicator shows the number of loggable/reportable non-system failures for the reporting month. These items include: Security Badges, Access Control and Authorization, Security Force Error, and Unsecured Doors.

Non-System Failures	Number of Incidents	
	Jan. '92	Dec. '91
Security Badges	6	1
Access Control and Authorization	2	2
Security Force Error	0	0*
Unsecured Doors	0	0*
Total	8	3

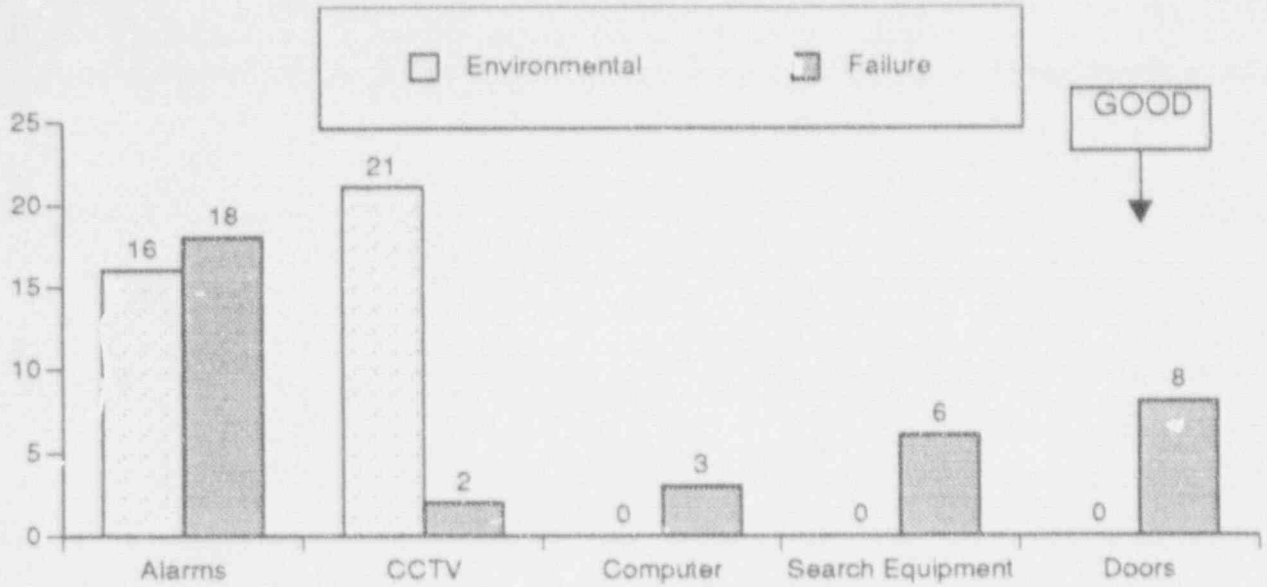
*New Performance Indicator - no statistics for 1991.

Data Source: Sefick/Woerner (Manager/Source)

Accountability: Sefick

Adverse Trend: None

SEP 58



SECURITY SYSTEM FAILURES

This indicator shows the number of loggable/reportable system failures for the reporting month. These items include: Alarm System Failures, CCTV failures, Security Computer Failures, Search Equipment Failures, and Door Hardware Failures. Alarm systems and CCTV failures will be divided into two categories: environmental failures and failures as defined in the performance indicator definitions. Also, the 1991 and 1992 System Failures will be compared on a monthly basis.

System	Number of Incidents			
	January '92		December '91	
	Environs	Failures	Environs	Failures
Alarms	16	18	6	6
CCTV	21	2	24	2
Computer	N/A	3	N/A	0
Search Equipment	N/A	6	N/A	0
Door Hardware	N/A	8	N/A	4
Totals	37	37	30	12

1991/1992 SYSTEM FAILURES COMPARISON

Jan 91/92	Feb 91/92	Mar 91/92	Apr 91/92	May 91/92	Jun 91/92
82/74	61/0	77/0	84/0	58/0	70/0

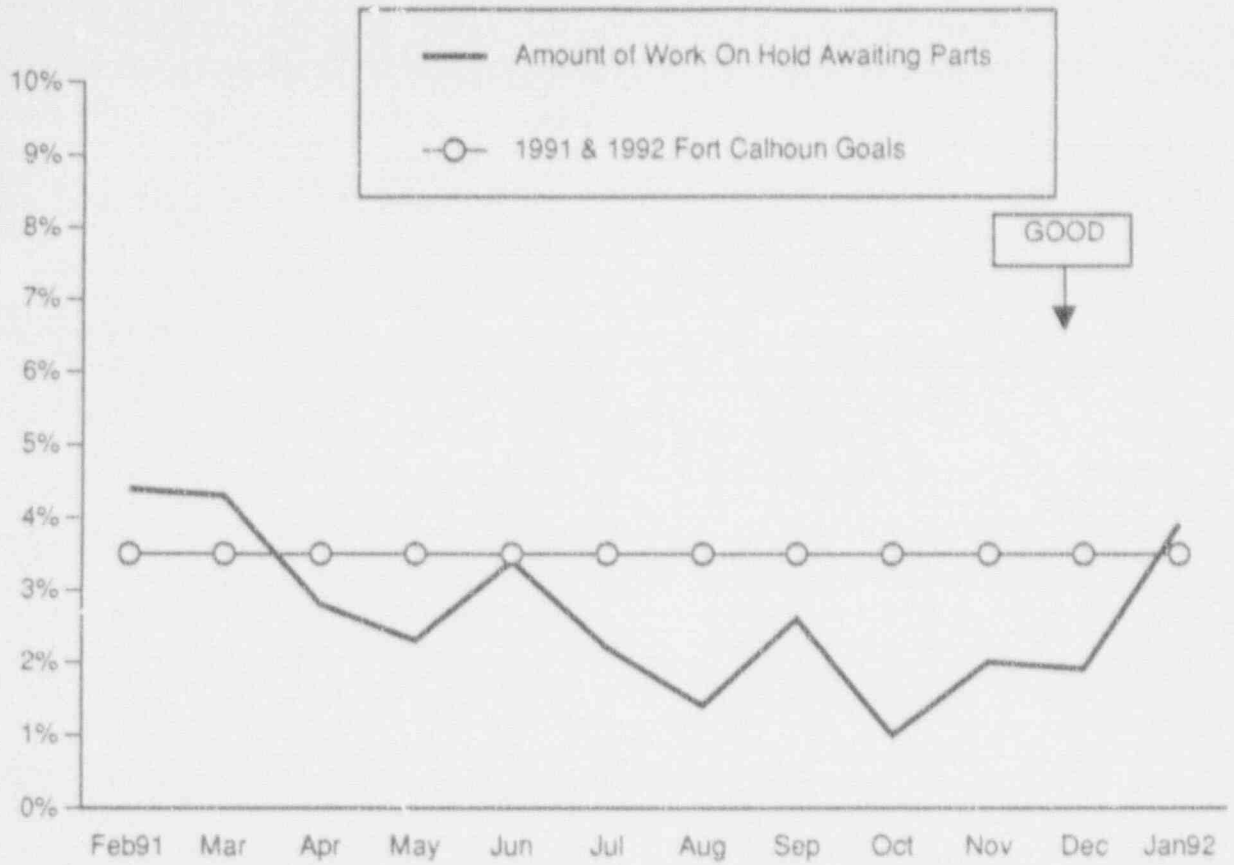
Jul 91/92	Aug 91/92	Sep 91/92	Oct 91/92	Nov 91/92	Dec 91/92
63/0	67/0	53/0	53/0	56/0	42/0

Data Source: Sefick/Woerner (Manager/Source)

Accountability: Sefick/Petersen

Adverse Trend: None

SEP 58



AMOUNT OF WORK ON HOLD AWAITING PARTS (NON-OUTAGE)

This procurement indicator displays the percentage of open, non-outage maintenance items that are on hold awaiting parts, to the total amount of open, non-outage maintenance items.

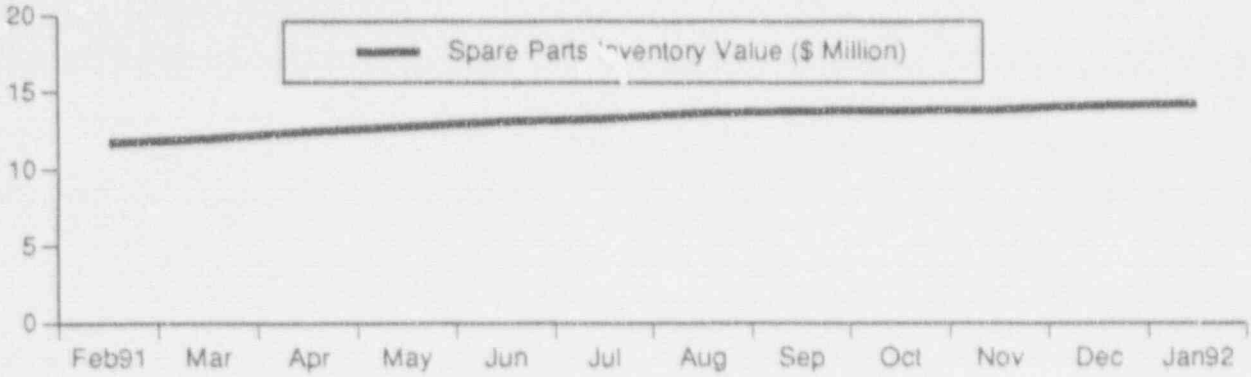
There was a total of 515 open, non-outage maintenance work orders (MWOs) with 20 (3.9%) of these MWOs on hold awaiting parts at the end of the reporting month.

The 1991 and 1992 Fort Calhoun Goals for this indicator are 3.5% of the total number of open, non-outage MWOs awaiting parts.

Data Source: Willrett/CHAMPS (Manager/Source)

Accountability: Willrett/Fraser

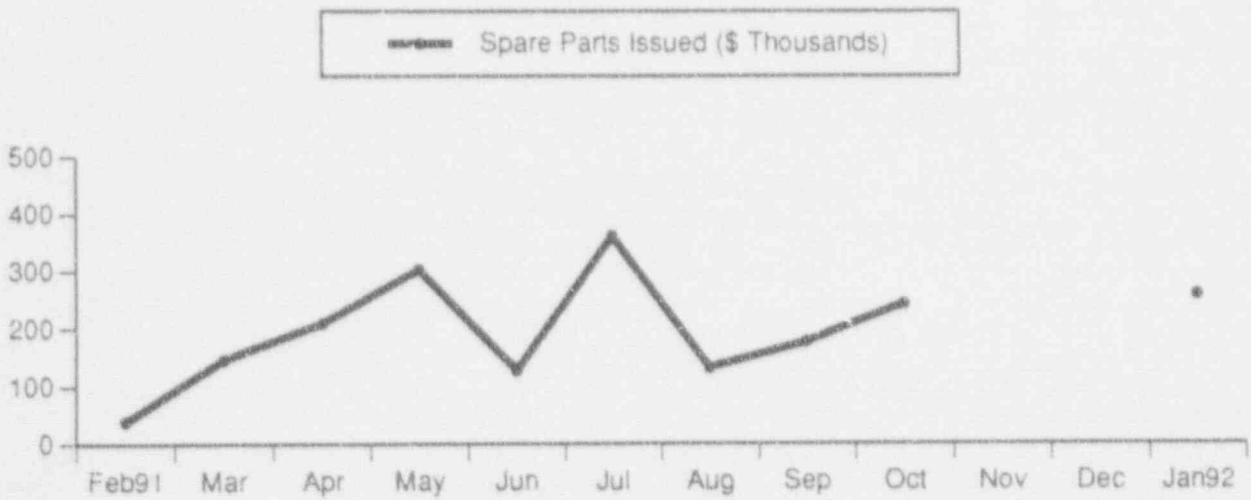
Adverse Trend: None



SPARE PARTS INVENTORY VALUE

The spare parts inventory value at the Fort Calhoun Station at the end of January 1992 was reported as $14,204,757.

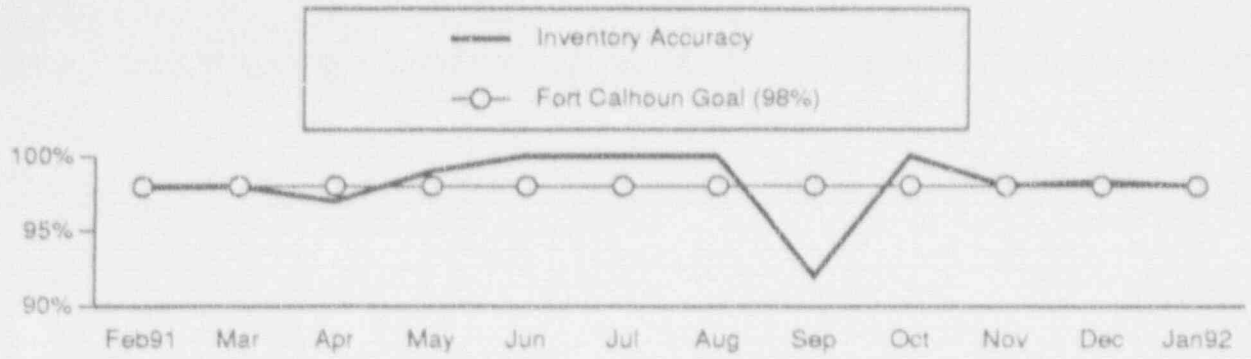
Data Source: Steele/Huliska (Manager/Source)
Accountability: Willrett/McCormick
Adverse Trend: None



SPARE PARTS ISSUED

The value of the spare parts issued during January 1992 totaled $259,002. The value of the spare parts issued for November and December 1991 was not available due to a printer problem.

Data Source: Steele/Miser (Manager/Source)
Accountability: Willrett/McCormick
Adverse Trend: None

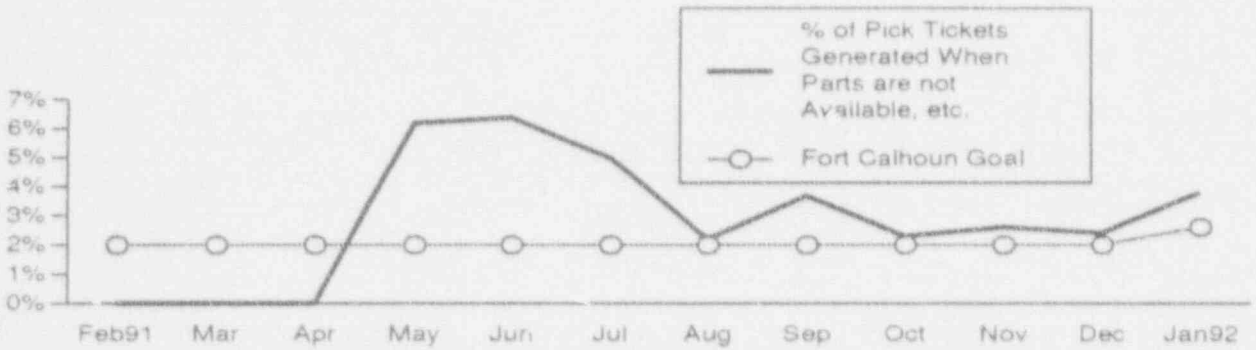


INVENTORY ACCURACY

This indicator shows the accuracy of the actual parts count for the warehouse compared to the counts contained in the MMIS computer system for the reporting month.

During January 1992, 651 different line items were counted in the warehouse. Of the 651 line items counted, 13 items needed count adjustments. The inventory accuracy for the month of January was reported as 98%. The Fort Calhoun 1991 goal for this indicator is 98%.

Data Source: Willrett/McCormick (Manager/Source)
Accountability: Willrett/McCormick
Adverse Trend: None

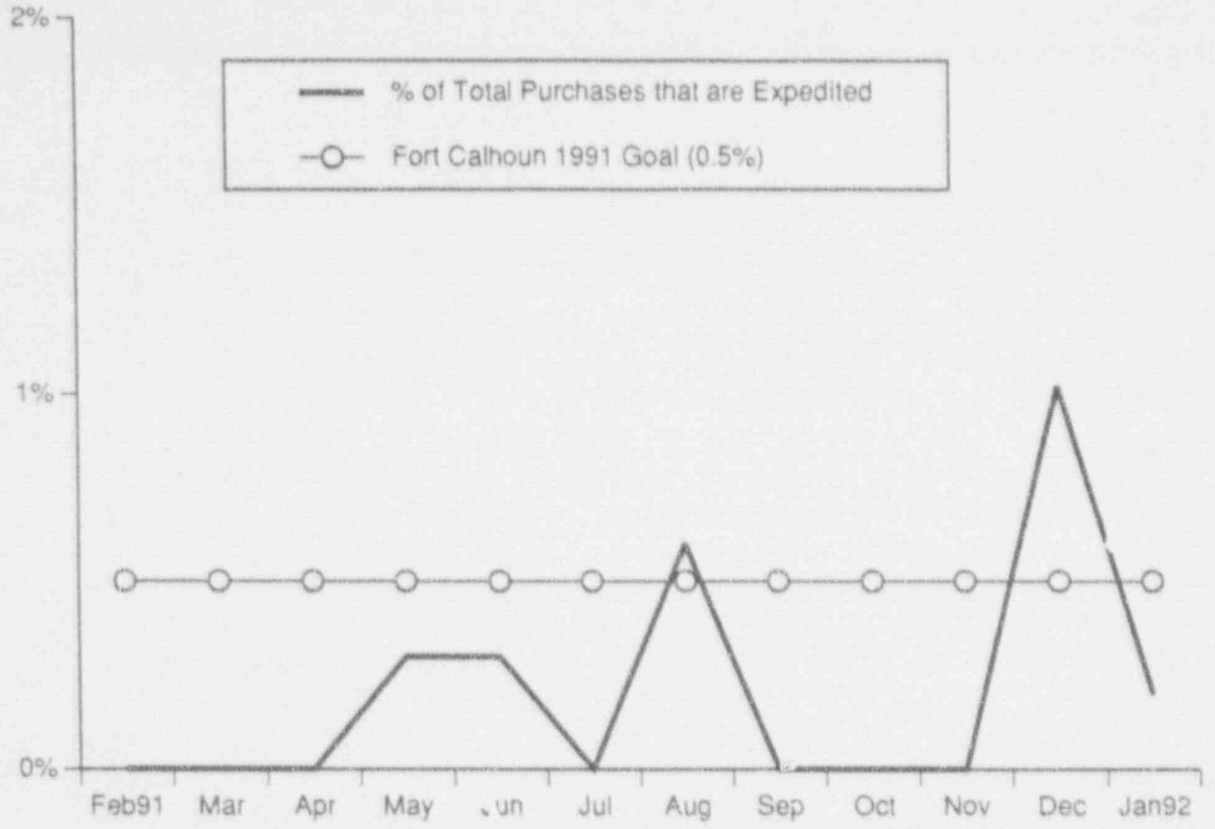


STOCKOUT RATE

This indicator shows the percentage of the number of Pick Tickets generated when the amount of parts requested is equal to or less than the minimum stocking level and parts are not available.

During January 1992, a total of 1675 Pick Tickets were generated. Of the 1675 Pick Tickets generated, 64 Pick Tickets (3.8%) were generated when the amount of parts requested was equal to or less than the minimum stocking level and parts were not available. The Fort Calhoun 1991 goal for this indicator is 2% and the 1992 goal is 2.6%.

Data Source: Willrett/McCormick (Manager/Source)
Accountability: Willrett/McCormick
Adverse Trend: None



EXPEDITED PURCHASES

This indicator shows the percentage of expedited purchases compared to the total number of purchase orders generated during the reporting month.

During January, there was a total of 408 purchase orders generated. Of the 408 purchase orders generated, 1 (0.2%) was an expedited purchase.

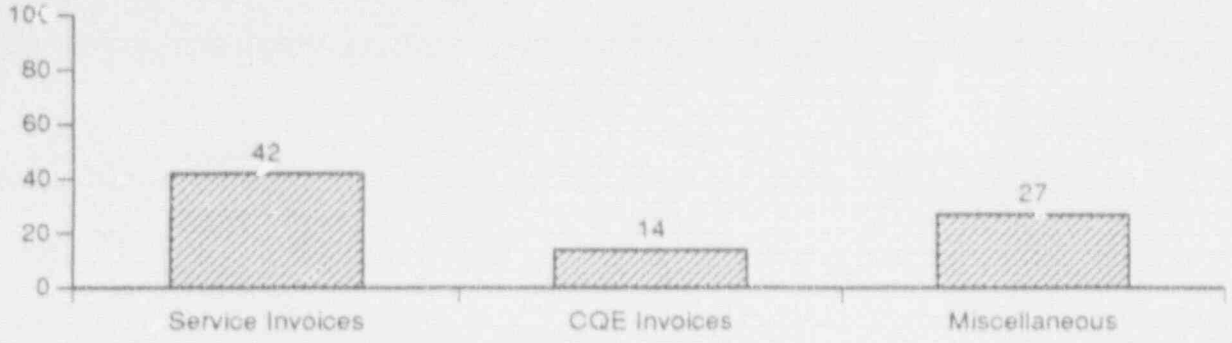
The expedited purchase was for sight bubblers for leak rate rigs.

The Fort Calhoun 1991 goal for this indicator is 0.5%.

Date Source: Willrett/Fraser (Manager/Source)

Accountability: Willrett/Fraser

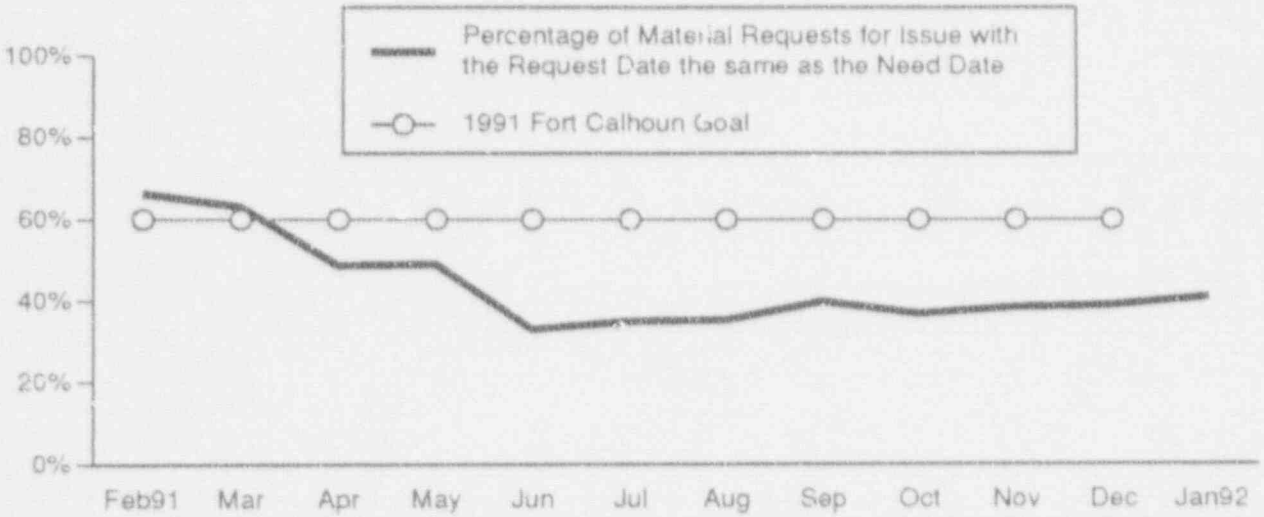
Adverse Trend: None



INVOICE BREAKDOWN

This indicator shows the number of service invoices, CQE invoices, and miscellaneous invoices for the month of January 1992.

Date Source: Willrett/Fraser (Manager/Source)
Accountability: Willrett/Fraser
Adverse Trend: None

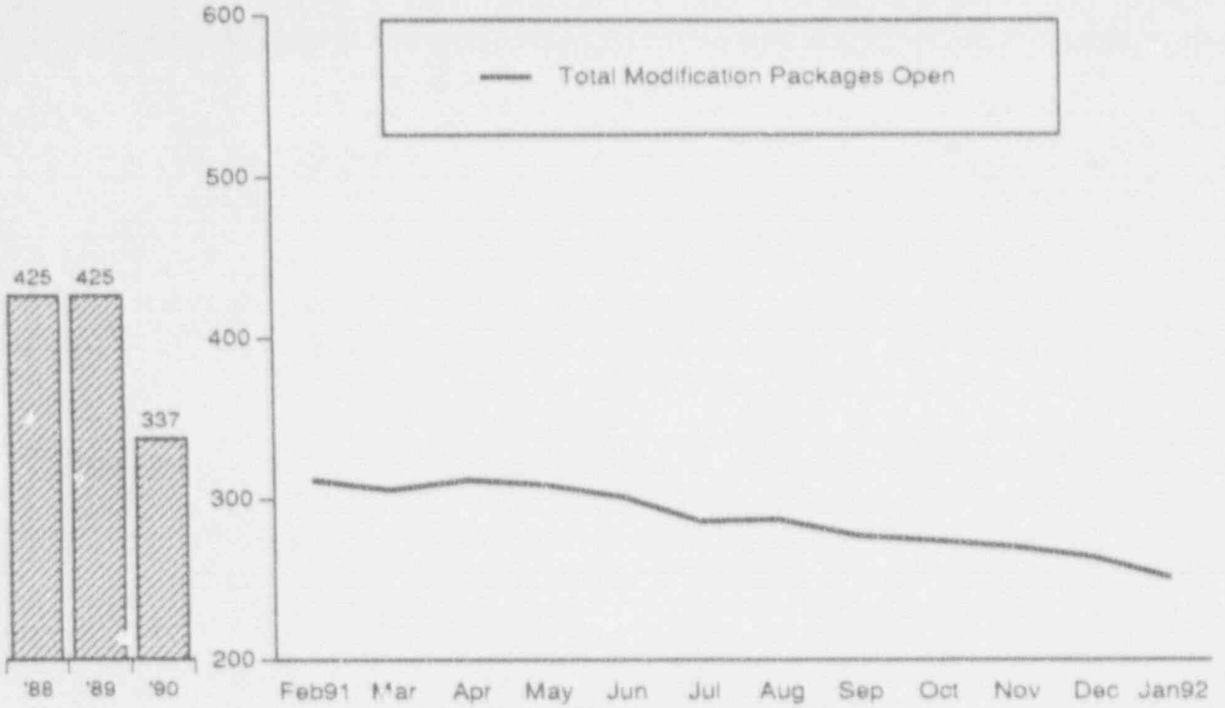


MATERIAL REQUEST PLANNING

This indicator shows the percentage of material requests (MRs) for issue with their request date the same as their need date compared to the total number of MRs for issue for the reporting month. The 1991 goal of 60% is also shown.

During the month of January, a total of 1675 MRs were received by the warehouse. Of the 1675 total MRs received by the warehouse, 683 MRs (41 % of the 1675) were for issue with their request date the same as their need date.

Data Source: Willrett/McCormick (Manager/Source)
Accountability: Willrett/McCormick
Adverse Trend: None



OUTSTANDING MODIFICATIONS

This indicator shows the total number of outstanding modifications (excluding outstanding modifications which are proposed to be cancelled).

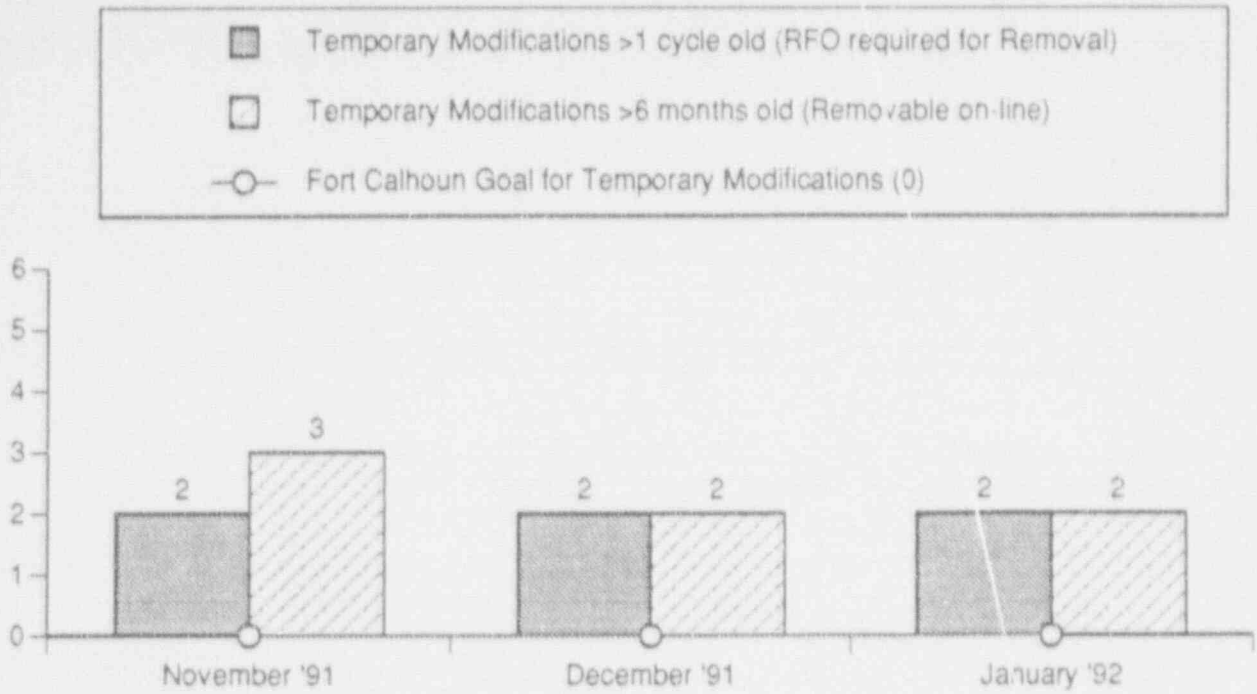
Category	Reporting Month
Form FC-1133 Backlog/In Progress	18
Mod. Requests Being Reviewed	72
Design Engr. Backlog/In Progress	94
Construction Backlog/In Progress	44
Design Engr. Update Backlog/In Progress	23
Total	251

At the end of January, 3 additional modification requests had been issued this year and 1 modification request had been cancelled. The Nuclear Projects Review Committee (NPRC) had completed 15 backlog modification request reviews this year. The Nuclear Projects Committee (NPC) had completed 12 backlog modification request reviews this year.

Data Source: Jaworski/Turner (Manager/Source)
Scofield/Lounsbery (Manager/Source)

Accountability: Scofield/Phelps

Adverse Trend: None



TEMPORARY MODIFICATIONS (EXCLUDING SCAFFOLDING)

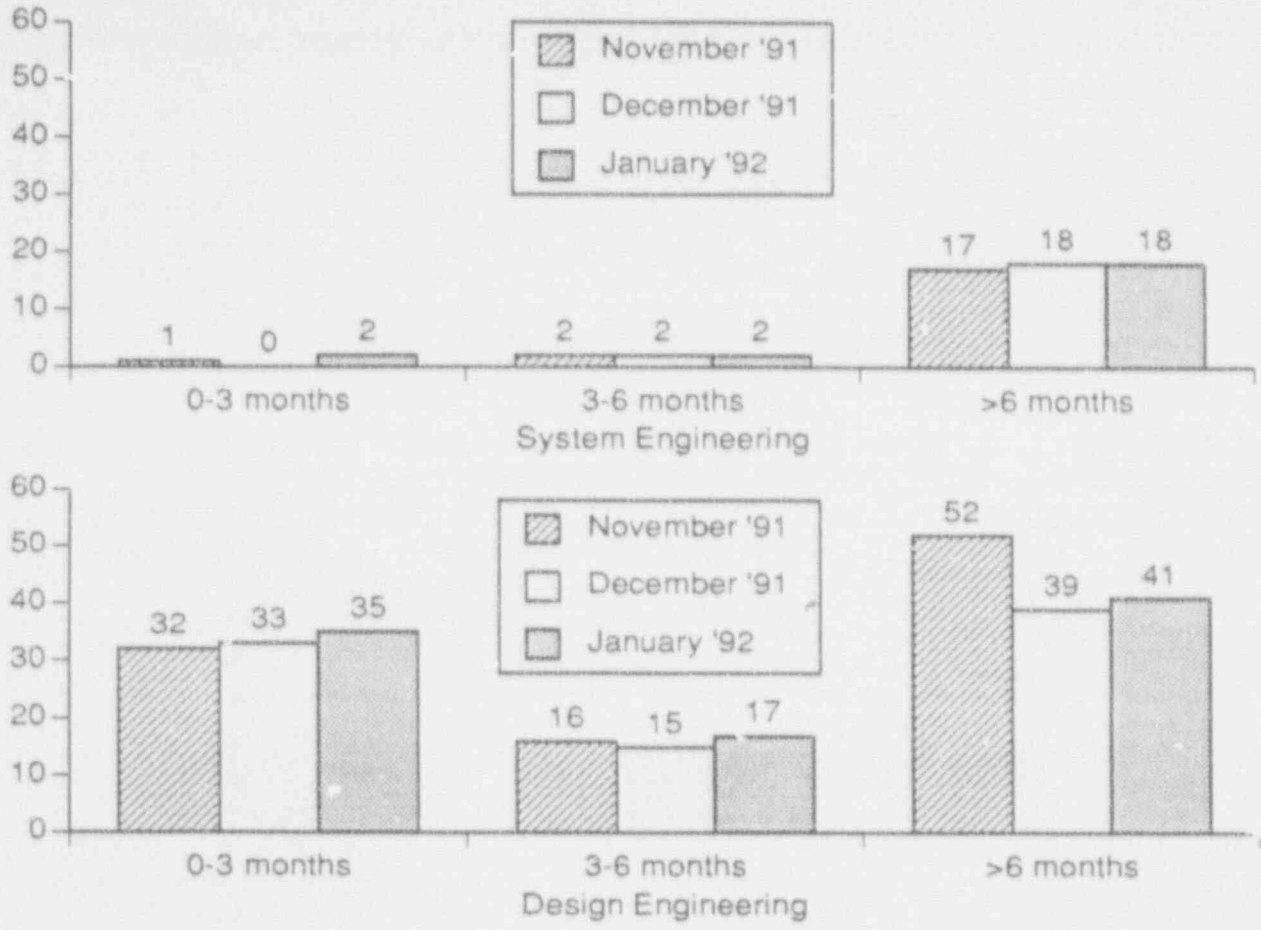
This indicator provides information on the number of temporary modifications greater than one fuel cycle old requiring a refueling outage (RFO) for removal and the number of temporary modifications removable on-line that are greater than six months old. Also provided is the Fort Calhoun goal for temporary modifications.

The goal for this indicator was changed in August 1991 to be more indicative of Fort Calhoun's control and management of temporary modifications. There are currently 2 temporary modifications that are greater than one fuel cycle old. Both of these modifications are 100% ready to be removed during the 1992 refueling outage. These are: AI-198 power supply failure alarm, and pressure indication for RW/CCW HXs. In addition, at the end of January there were 2 temporary modifications installed that were greater than six months old that can be removed on-line. These were: handjack close of CCW/RW valves, which is awaiting a system engineering evaluation of EAR 91-282; and potable water supply piping temporary repair, which will be made permanent by ECN 91-077, issued 10/21/91, and ECN 91-370, scheduled to be issued 2/28/92.

At the end of January, there was a total of 25 TMs installed in the Fort Calhoun Station. 15 of the 25 installed TMs require an outage for removal and 10 are removable on-line. In 1992 a total of 7 temporary modifications have been installed.

Data Source: Jaworski/Turner (Manager/Source)
Accountability: Jaworski/Gorence
Adverse Trend: None

SEP 62 & 71



ENGINEERING ASSISTANCE REQUEST (EAR) BREAKDOWN

This indicator shows a breakdown of the number of EARs assigned to Design Engineering and System Engineering awaiting a technical response from engineering.

At the end of January 1992, 5 EARs were in the initiation process and 23 EARs had been resolved and were going through the closeout process.

Total EAR breakdown is as follows:

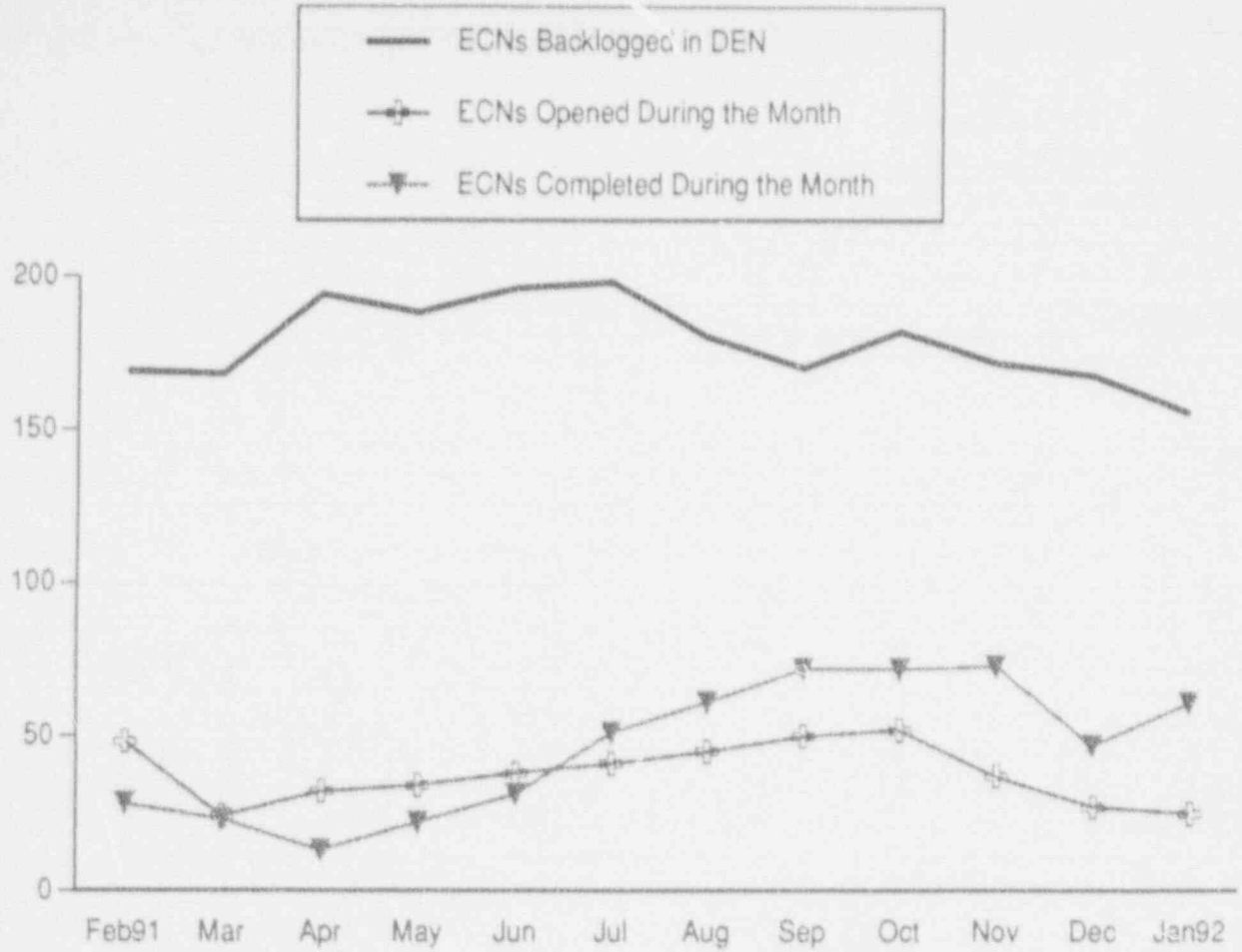
EARS opened during the month	18
Ears closed during the month	14
Total open EARs open at the end of the month	143

Data Source: Jaworski/Van Osdel (Manager/Source)

Accountability: Jaworski/Phelps

Adverse Trend: None

SEP 62



ENGINEERING CHANGE NOTICE STATUS

This indicator shows the number of Engineering Change Notices (ECNs) awaiting completion by DEN, the number of ECNs opened during the reporting month, and the number of ECNs completed by DEN during the reporting month.

At the end of January 1992, there was a total of 156 DEN backlogged open ECNs. There were 35 ECNs opened, and 61 ECNs completed during the month.

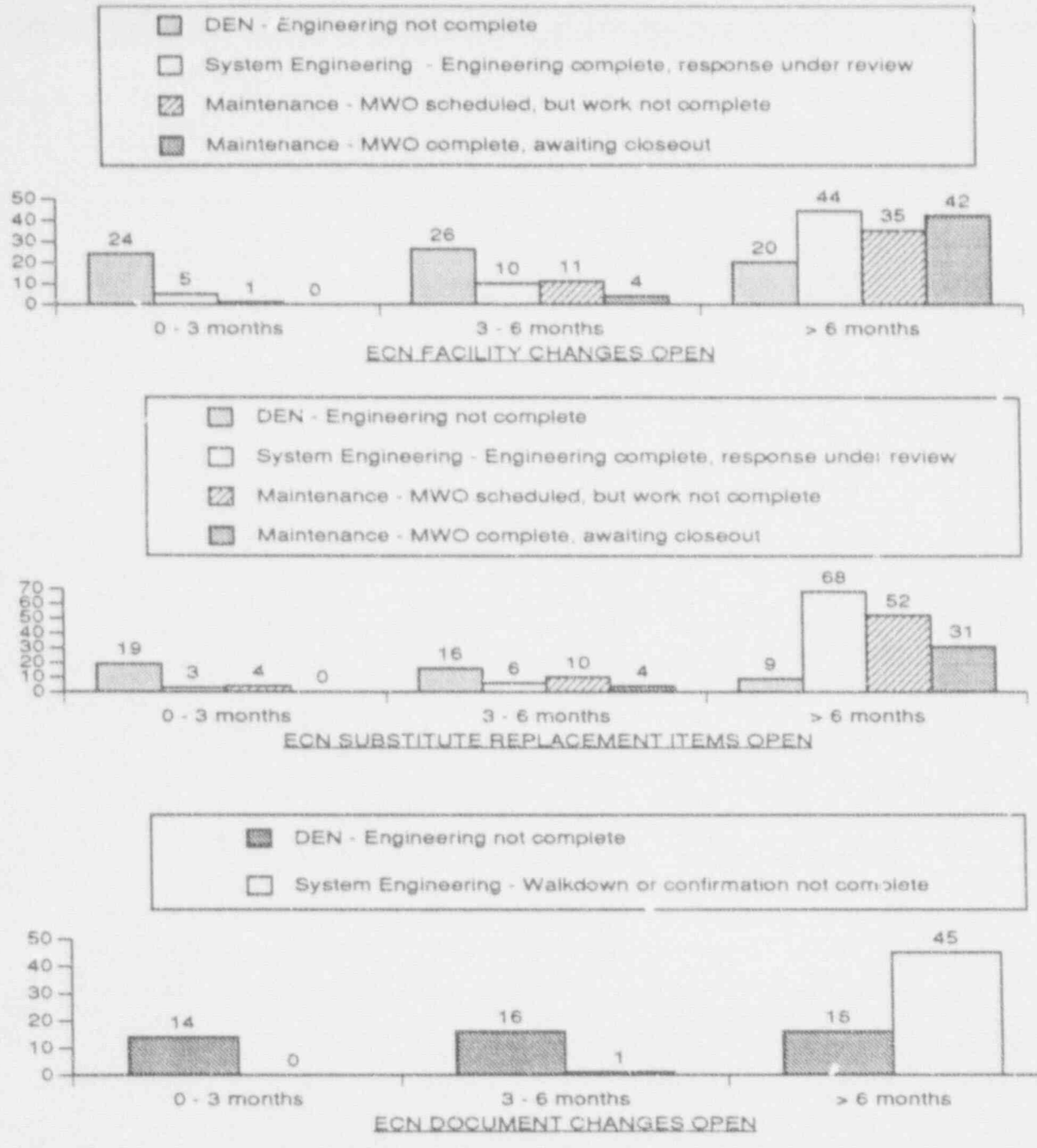
Although the number of open ECNs is currently high, activities are in progress to reduce the backlog of open ECNs. It is expected that the number of open ECNs will continue to decrease.

Data Source: Phelps/Pulverenti (Manager/Source)

Accountability: Phelps/Jaworski

Adverse Trend: None

SEP 62

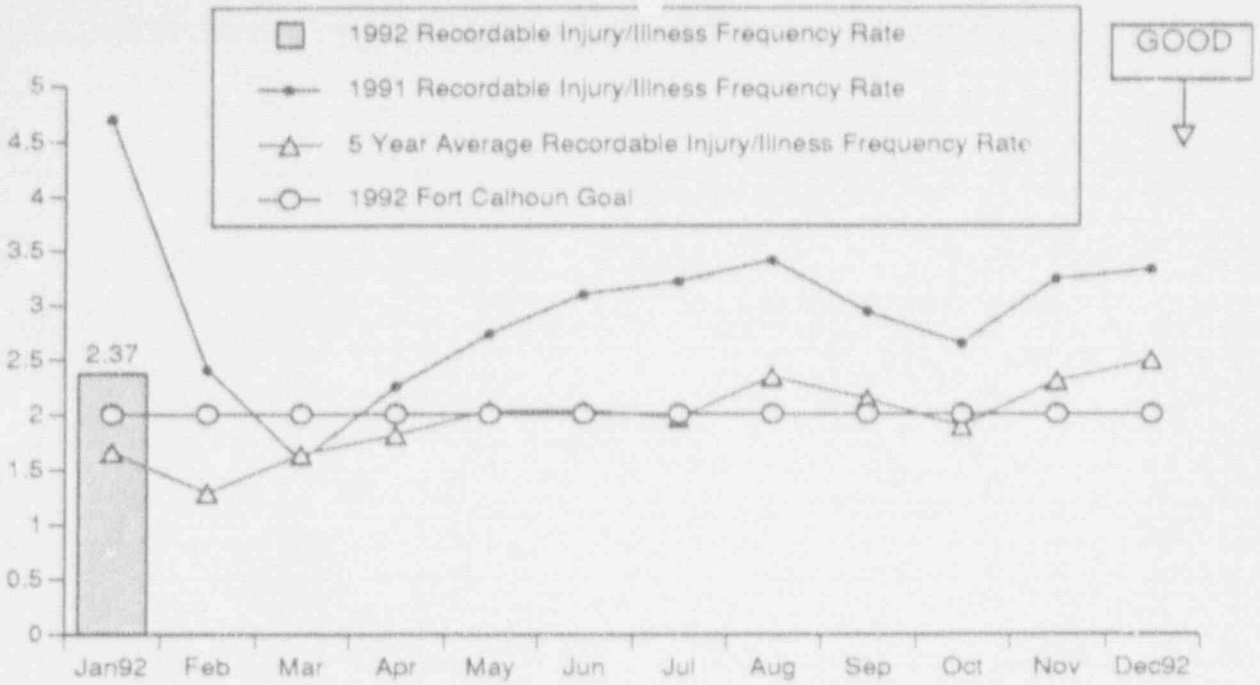


ENGINEERING CHANGE NOTICE BREAKDOWN

This indicator shows a breakdown of the number of Engineering Change Notices (ECNs) that are assigned to Design Engineering Nuclear (DEN), System Engineering, and Maintenance for the reporting month. The graphs provide data on ECN Facility Changes Open, ECN Substitute Replacement Items Open, and ECN Document Changes Open.

Data Source: Phelps/Pulverenti (Manager/Source)
Accountability: Phelps/Jaworski
Adverse Trend: None

SEP 62



RECORDABLE INJURY/ILLNESS CASES FREQUENCY RATE

This indicator shows the 1992 monthly recordable injury/illness cases frequency rate in column form. The 1991 recordable injury/illness cases frequency rate and the Fort Calhoun Station 5 year average (from 1987 through 1991) recordable injury/illness cases frequency rates are also shown.

A recordable injury/illness case is reported if Nuclear Operations Division personnel are injured on the job and require corrective medical treatment beyond first aid. The recordable cases frequency rate is computed on a year-to-date basis.

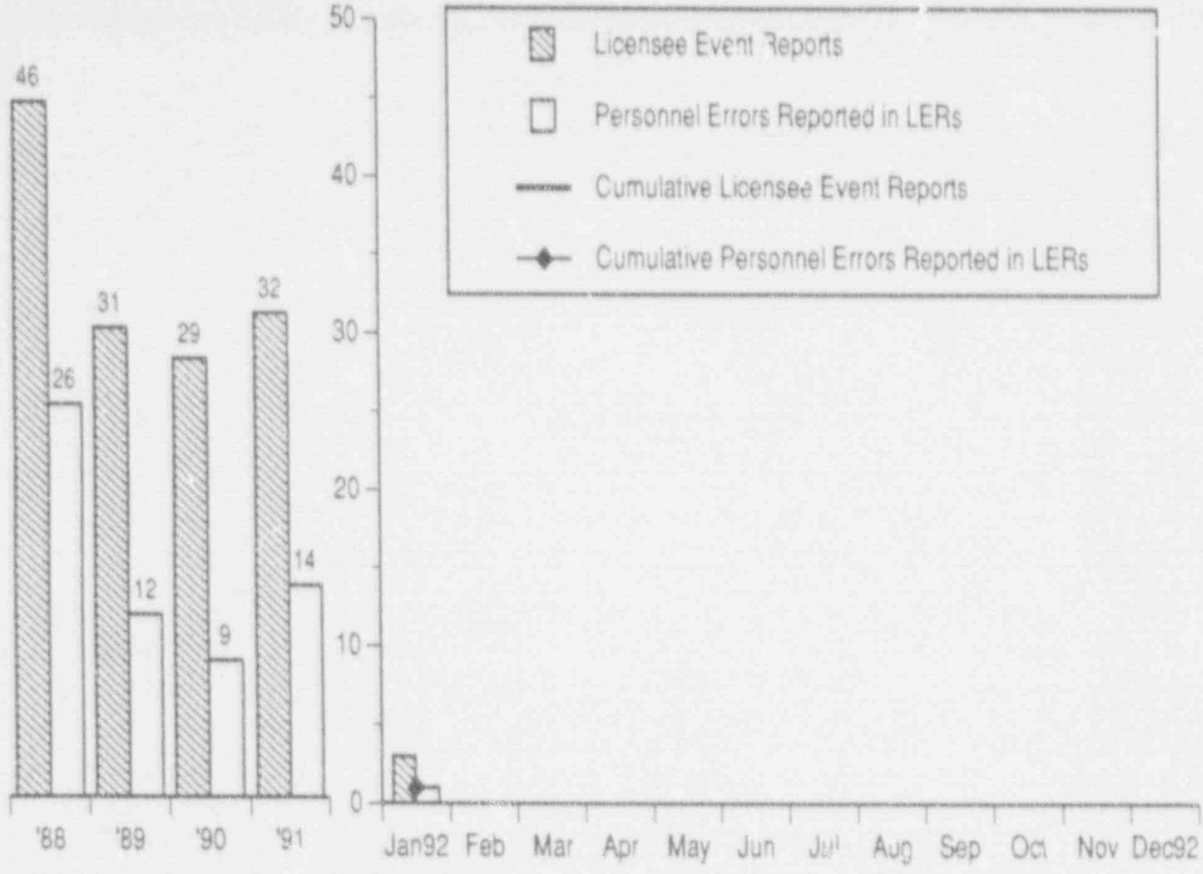
There was one recordable injury/illness cases reported during the month of January 1992. The recordable injury/illness case occurred when an employee experienced a back injury while removing a rail from a platform. There has been a total of 1 recordable injury/illness case in 1992.

The 1992 goal for this indicator is 2.0.

Year	Recordable Cases	Year-End Rate
1989	11	2.2
1990	11	2.1
1991	18	3.3

Data Source: Sorenson/Skaggs (Manager/Source)
Accountability: Richard

Adverse Trend: None SEP 15, 25 & 26



NUMBER OF PERSONNEL ERRORS REPORTED IN LERS

This indicator shows the number of Licensee Event Reports (LERs) with report dates during January 1992, the LERs attributed to personnel errors, and the cumulative total of both. The year-end totals for the four previous years are also shown.

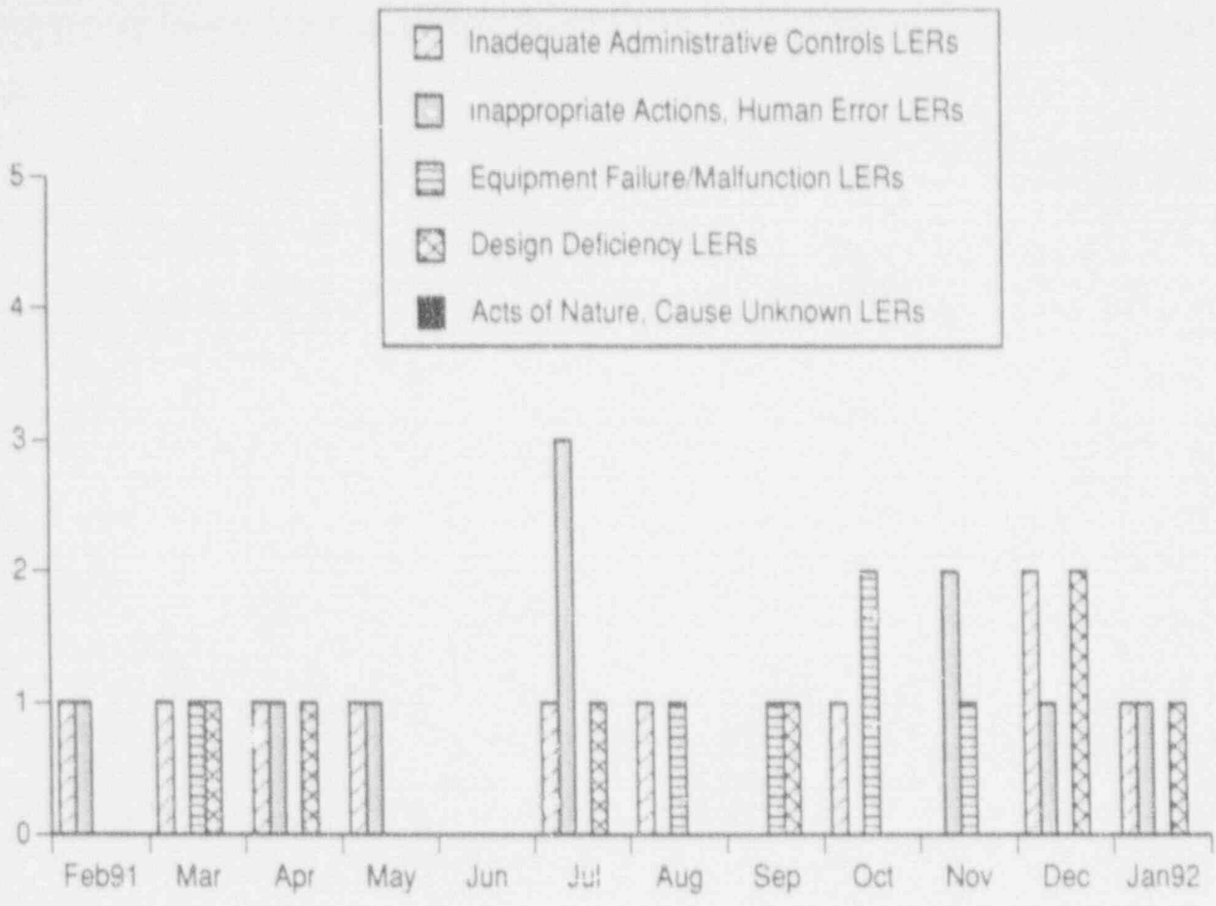
In January, there were three LERs reported. One of the LERs were attributable to personnel error. The LER attributable to personnel error was LER 91-30 "Containment Purge without Radiation Monitors in Service."

Data Source: Short/Howman (Manager/Source)

Accountability: Patterson

Adverse Trend: None

SEP 15



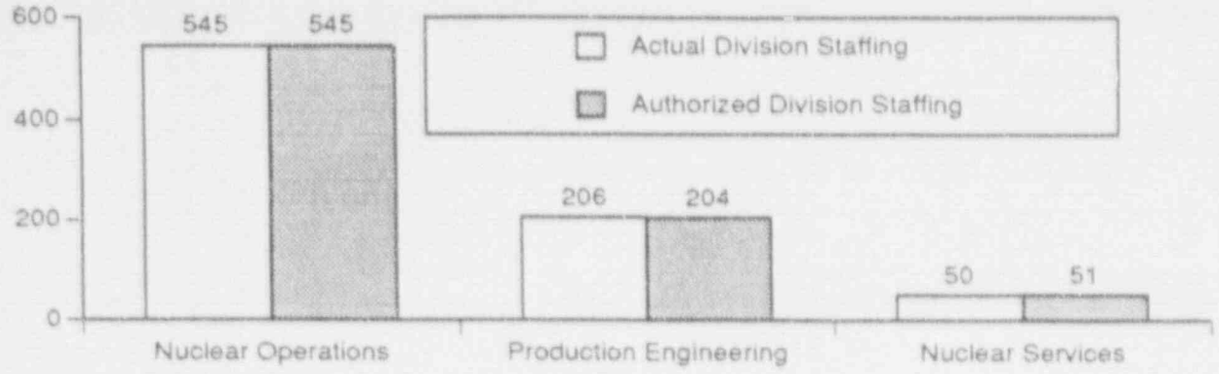
LER ROOT CAUSE BREAKDOWN

This indicator shows the LERs by report date and Root Cause Code for the months from February 1991 through January 1992.

Data Source: Short/Howman (Manager/Source)

Accountability: Patterson

Adverse Trend: None

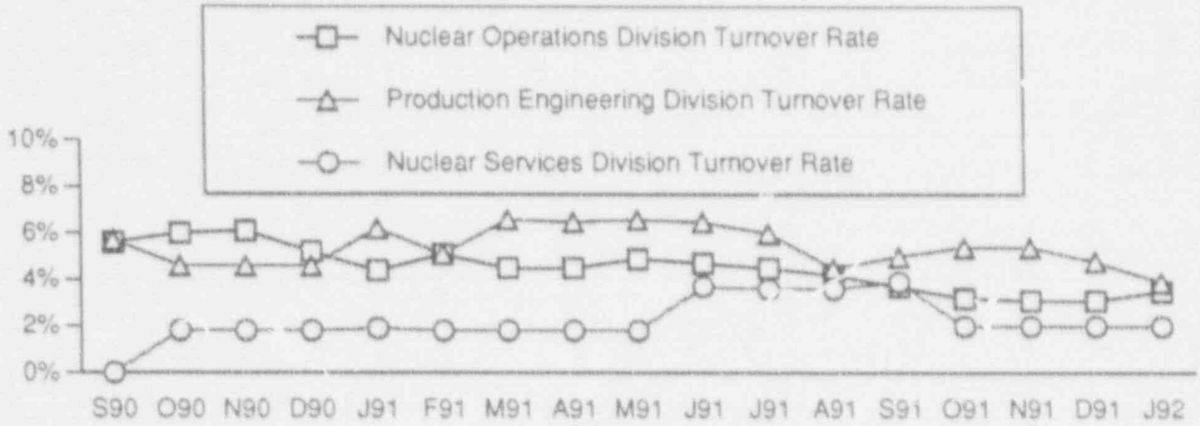


STAFFING LEVEL

The authorized and actual staffing levels are shown for the three Nuclear Divisions.

Data Source: Sorenson/Burke (Manager/Source)
Accountability: Waszak
Adverse Trend: None

SEP 24



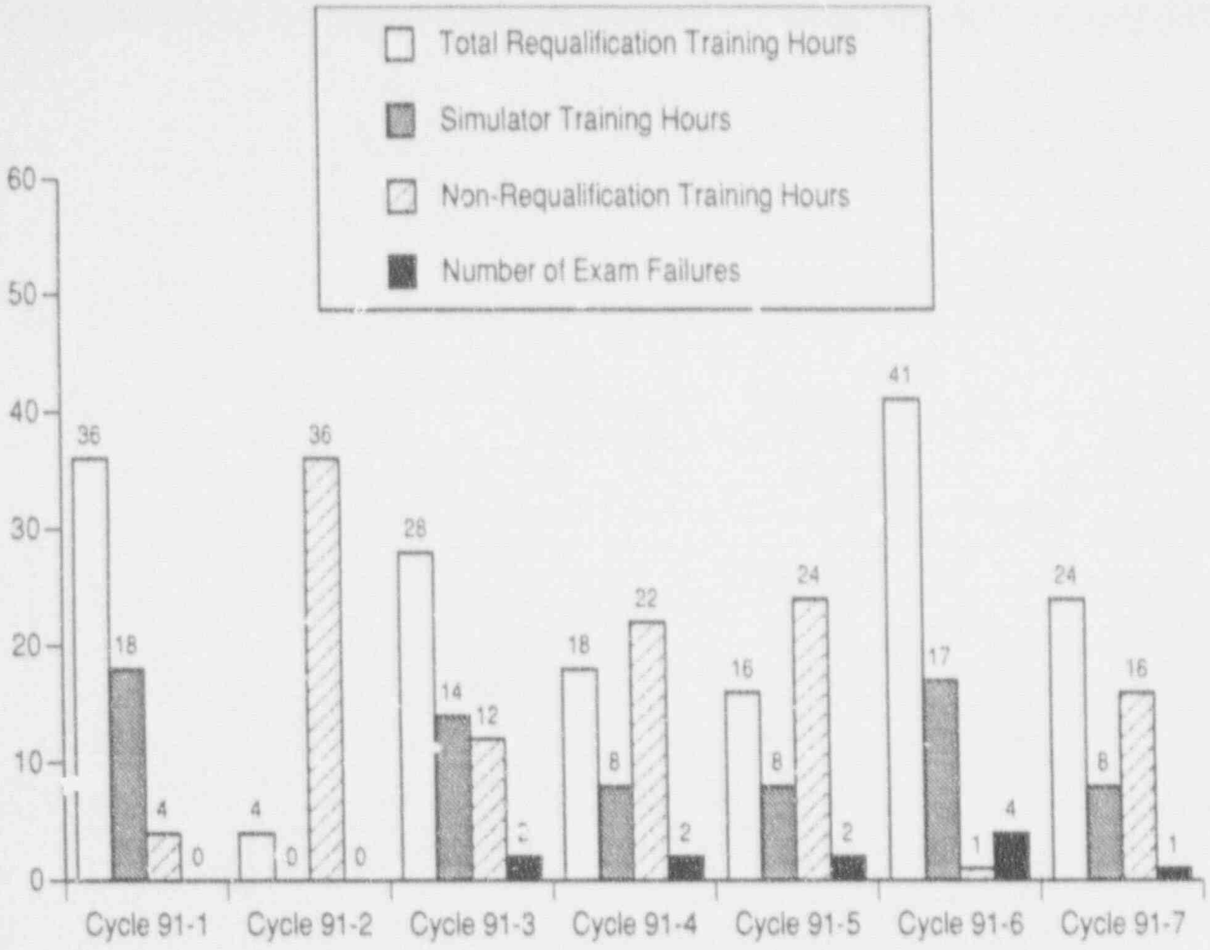
PERSONNEL TURNOVER RATE

The turnover rates for the three Divisions are calculated using only resignations from OPPD.

Division	Turnover Rate
NOD	3.5%
PED	3.9%
NSD	2.0%

Currently, the OPPD corporate turnover rate is being reported as approximately 2.5%. This OPPD corporate turnover rate is based on the turnover rate over the last four years.

Data Source: Sorenson/Burke (Manager/Source)
Accountability: Waszak
Adverse Trend: None



LICENSED OPERATOR REQUALIFICATION TRAINING

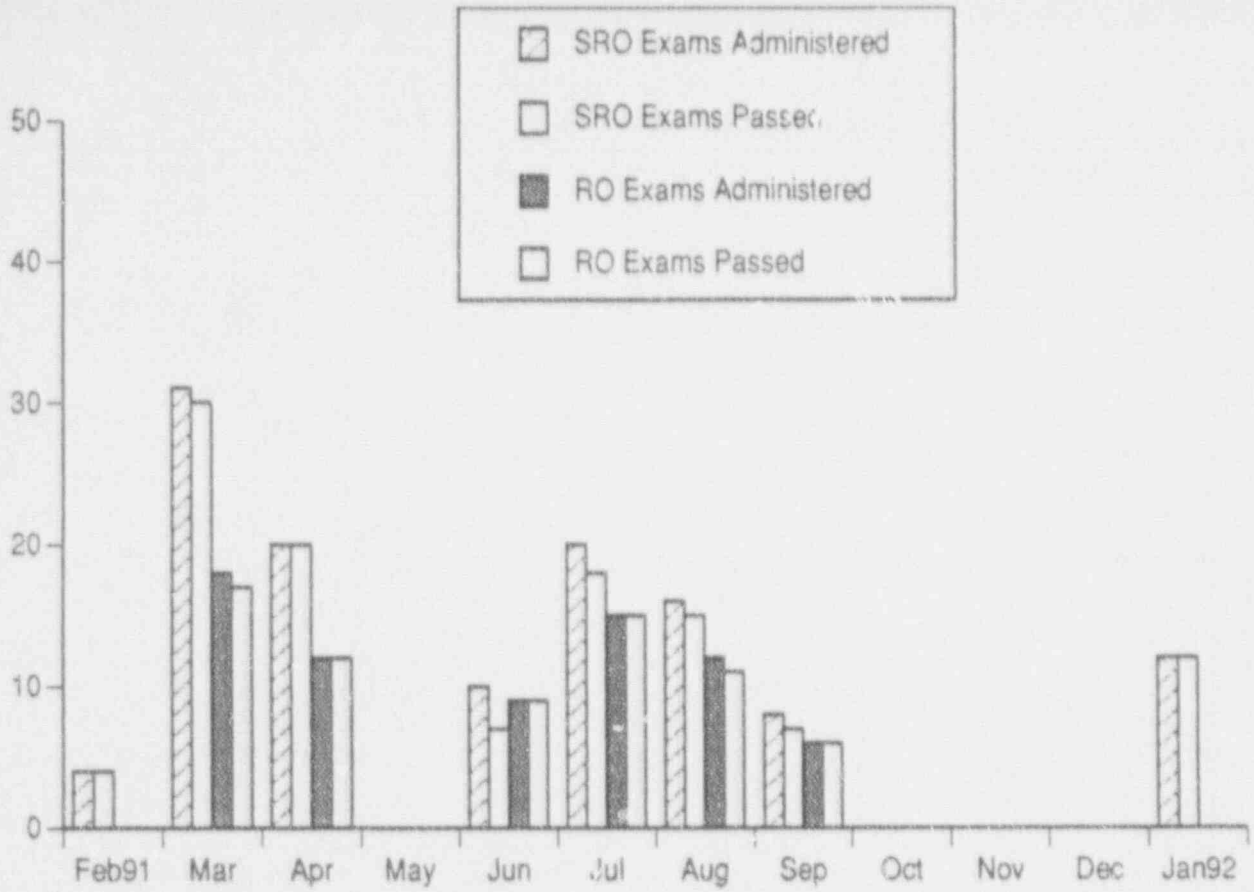
This indicator provides information on the total number of hours of training given to each crew during each cycle. The Simulator training hours shown on the graph are a subset of the total training hours. Non-Requalification Training Hours are used for AOP/EOP verification & validation, INPO commitments, GET, Fire Brigade, Safety Meetings, and Division Manager lunches.

Exam failures are defined as failures in the written, simulator, and Job Performance Measures (JPMs) segments of the Licensed Operator Requalification Training.

Cycle 92-1 will not be completed until February 1992. Data for that cycle will be provided in the February Fort Calhoun Performance Indicators Report.

Data Source: Gasper/Guliani (Manager/Source)
Accountability: Gasper/Guliani
Adverse Trend: None

SEP 68



LICENSE CANDIDATE EXAMS

This indicator shows the number of Senior Reactor Operator (SRO) and Reactor Operator (RO) quizzes and exams taken and passed each month. These internally administered quizzes and exams are used to plot the SRO and RO candidates' monthly progress.

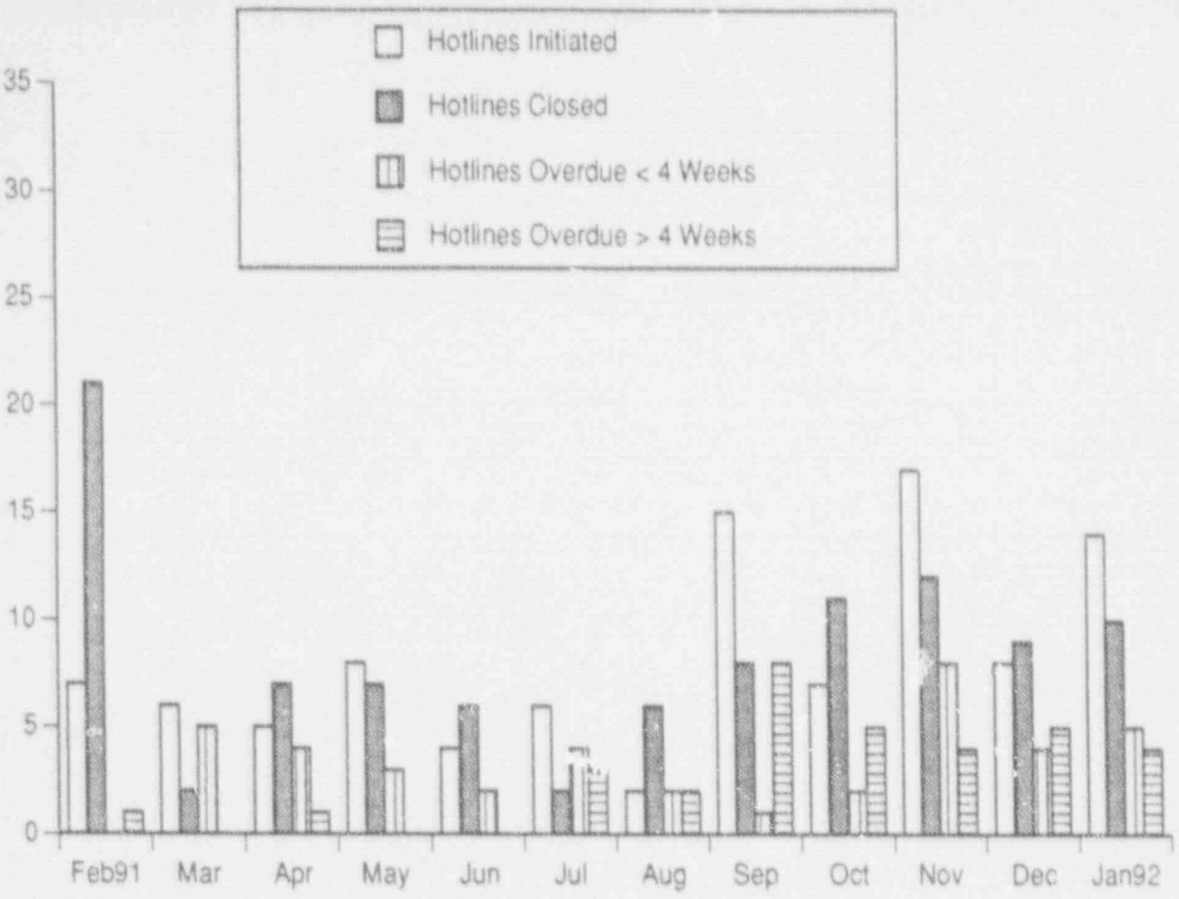
During the month of January 1992, there were twelve internally administered SRO exams taken and all twelve of these exams were passed. There were no internally administered RO exams and no NRC administered exams given during January.

Data Source: Gasper/Herman (Manager/Source)

Accountability: Gasper/Lazar

Adverse Trend: None

SEP 92



HOTLINE TRAINING MEMOS

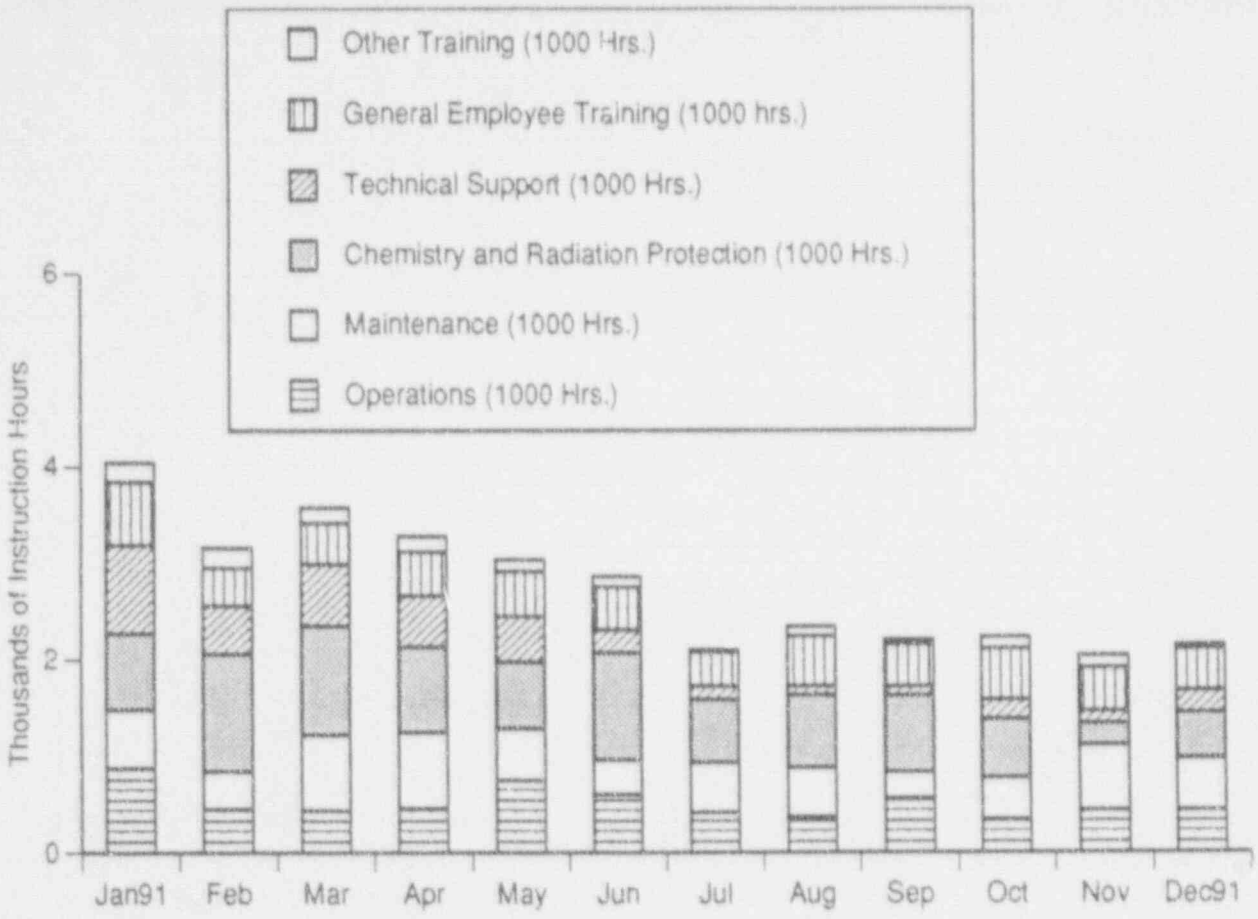
This indicator shows the number of Hotline Training Memos that were initiated, returned for close out, overdue less than four weeks, and overdue greater than four weeks for the reporting month.

	December 1991
Initiated Hotlines	14
Closed Hotlines	10
Hotlines Overdue < 4 wks.	5
Hotlines Overdue > 4 wks.	4

Data Source: Gasper/Newhouse (Manager/Source)

Accountability: Gasper

Adverse Trend: None



TOTAL INSTRUCTION HOURS

This indicator displays the training instruction hours administered to the listed departments for the month of December 1991.

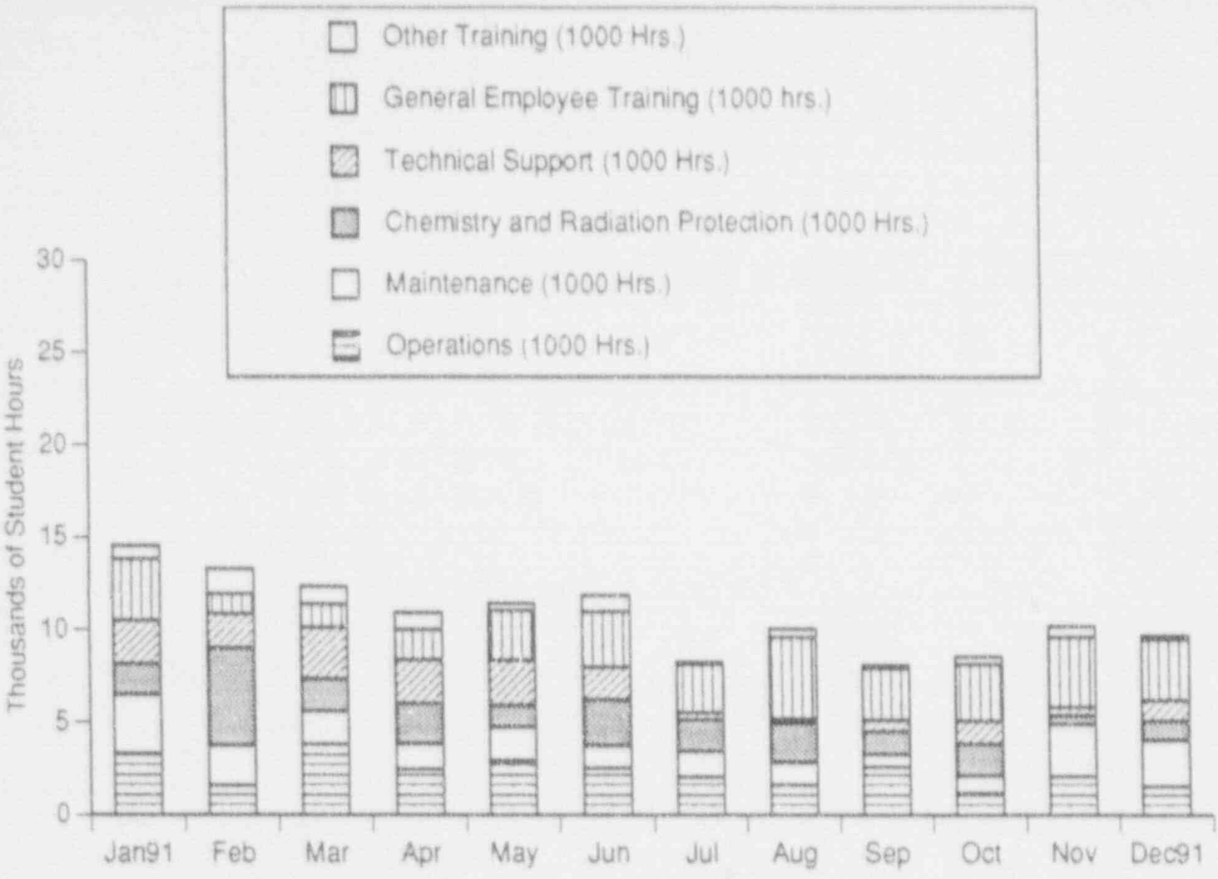
This indicator is normally one month behind the reporting month due to the time required for data collection and processing.

DEPARTMENT	NOVEMBER '91	DECEMBER '91
Operations	433	431
Maintenance	681	544
Chemistry and Radiation Protection	224	477
Technical Support	124	230
General Employee Training	462	435
Other	120	45
Total	2,044	2,162

Data Source: Gasper/Newhouse (Manager/Source)

Accountability: Gasper

Adverse Trend: None



TOTAL HOURS OF STUDENT TRAINING

This indicator shows the total number of student hours for Operations, Maintenance, Chemistry and Radiation Protection, Technical Support, General Employee Training, and Other Training conducted for the Fort Calhoun Station.

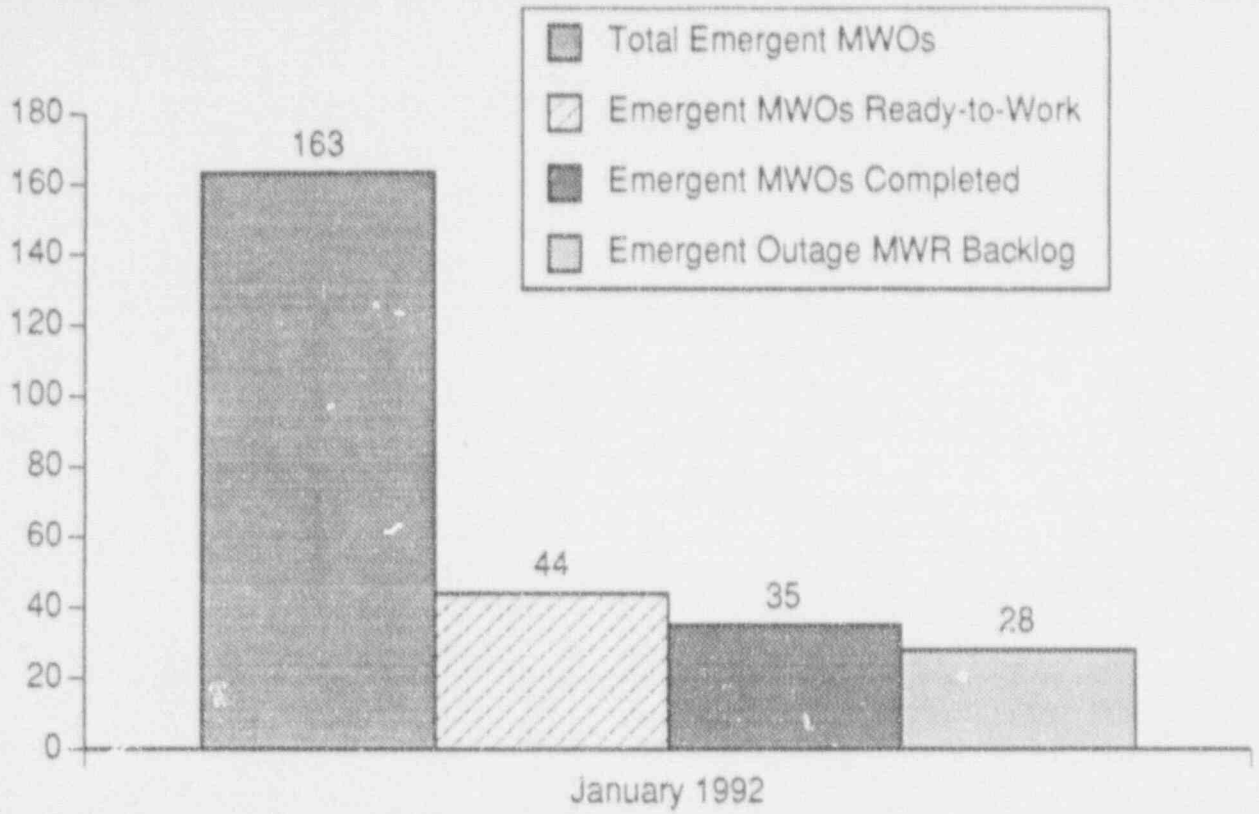
This indicator is normally one month behind the reporting month due to the time needed to collect and evaluate the data.

DEPARTMENT	NOVEMBER '91	DECEMBER '91
Operations	2,068	1,526
Maintenance	2,819	2,512
Chemistry and Radiation Protection	497	1,041
Technical Support	426	1,082
General Employee Training	3,782	3,306
Other	588	207
Total	10,180	9,674

Data Source: Gasper/Newhouse (Manager/Source)

Accountability: Gasper

Adverse Trend: None



EMERGENT MWO PLANNING STATUS (CYCLE 14 REFUELING OUTAGE)

Outage-related Maintenance Work Requests/Maintenance Work Orders (MWRs/MWOs) identified after the Outage (2/1/92) are identified as Emergent Work. This indicator shows the total number of Emergent MWOs that have been approved for inclusion in the Cycle 14 Refueling Outage and the number that are ready for work (parts staged, procedures approved, and paperwork ready for field use). Also included is the number of outage-related Emergent MWRs which have been identified for the Cycle 14 Refueling Outage, but have not yet been converted to MWOs. Approximately 3000 Maintenance Work Orders were completed during each of the previous two refueling outages.

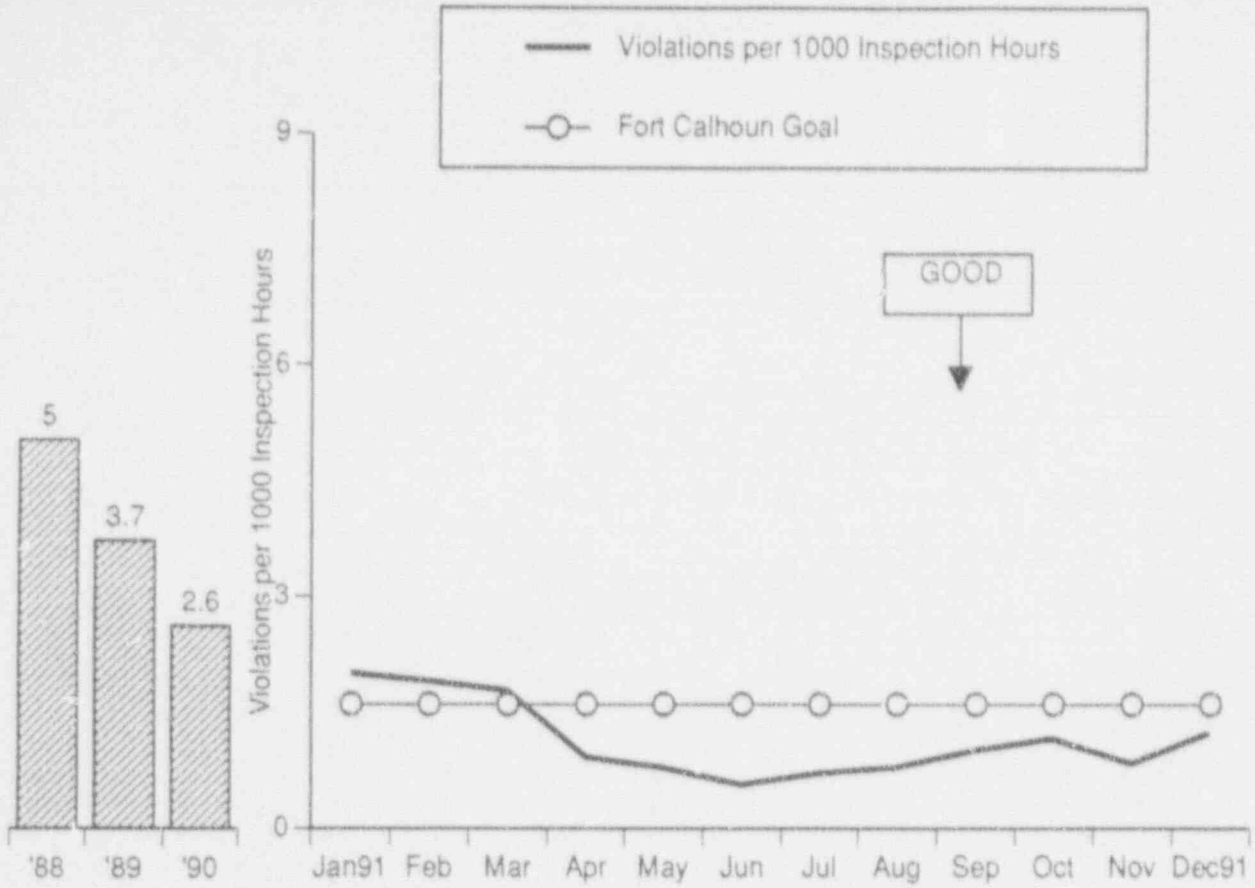
At the end of the reporting month, there were 163 emergent outage MWOs with 44 of these Ready-to-Work and a backlog of 28 MWRs. 35 Emergent MWOs have been completed.

Additional data points will be added to this indicator as information becomes available.

Data Source: Patterson/Dunham (Manager/Source)

Accountability: Patterson/Johansen

Adverse Trend: None SEP 31



VIOLATIONS PER 1000 INSPECTION HOURS

This indicator displays the number of NRC violations cited in inspection reports per 1000 NRC inspection hours. This indicator is one month behind the reporting month due to the time involved with collecting and processing the data.

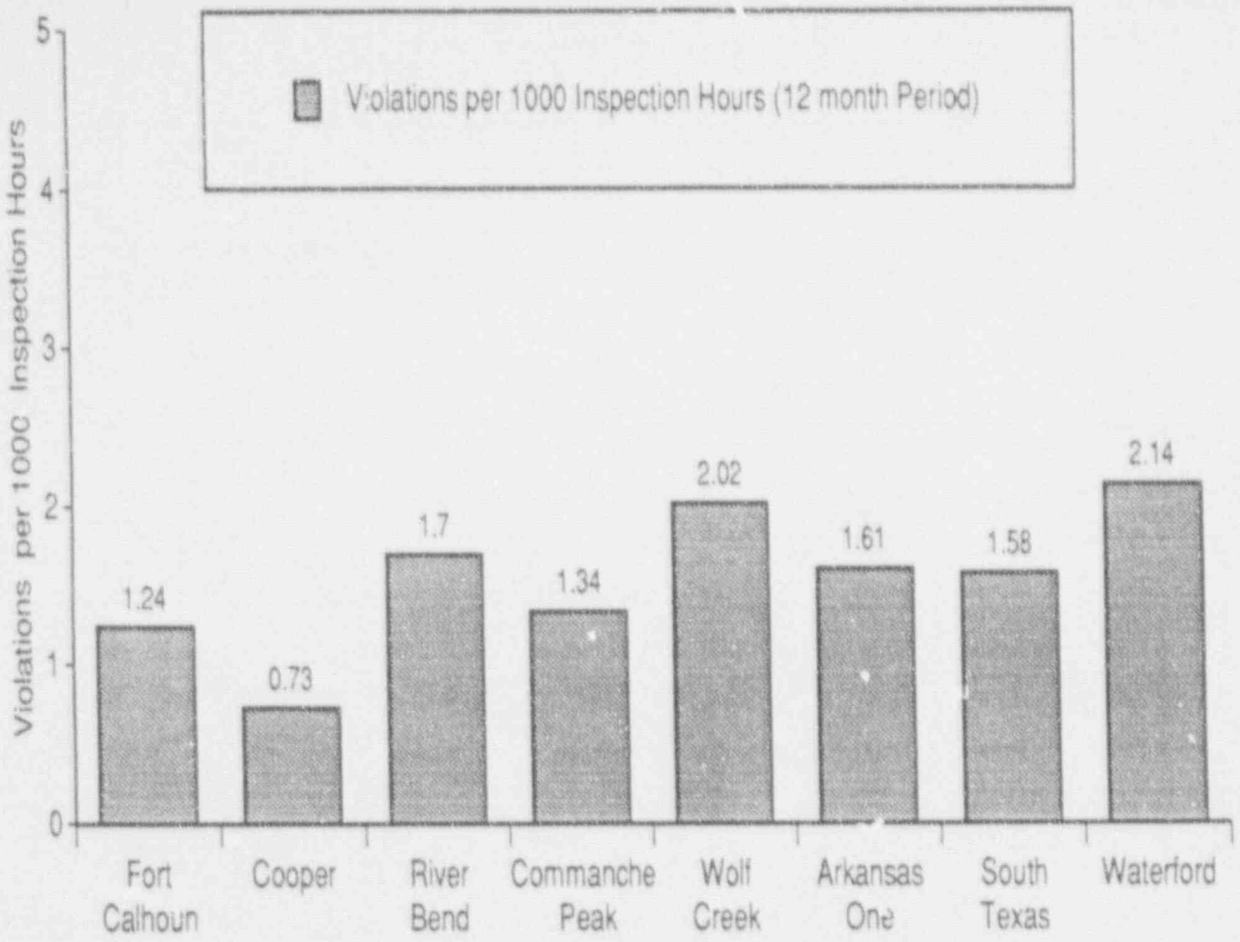
The violations per 1000 inspection hours indicator was reported as 1.24 for the twelve months from January 1, 1991 through December 31, 1991.

The Fort Calhoun Goal is 1.6 violations per 1000 inspection hours for 1991.

Data Source: Short/Howman (Manager/Source)

Accountability: Short

Adverse Trend: None



COMPARISON OF VIOLATIONS AMONG REGION IV PLANTS

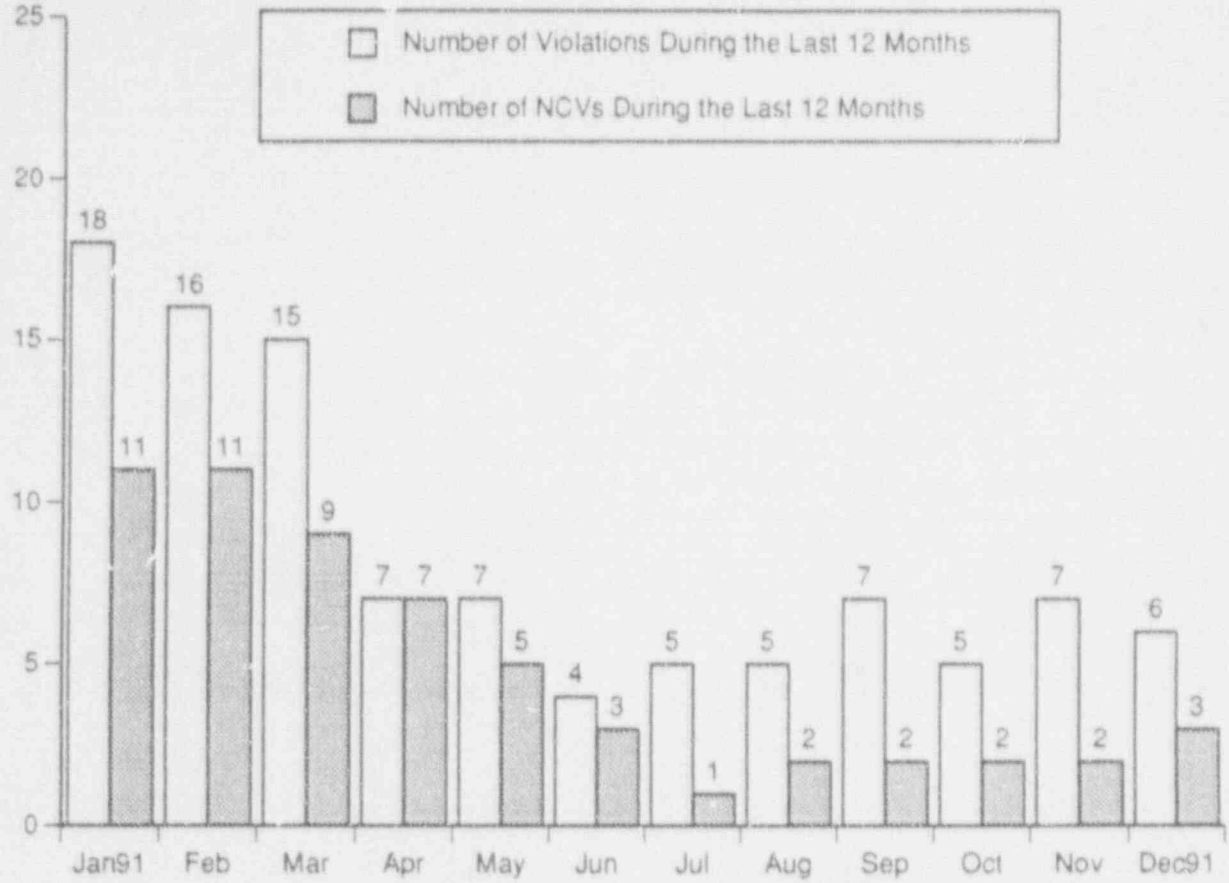
This indicator provides a comparison of violations per 1000 inspection hours among Region IV nuclear power plants. The data is compiled for a twelve month period from January 1, 1991 to December 31, 1991.

The Fort Calhoun goal for 1991 is 1.6 violations per 1000 inspection hours.

Data Source: Short/Howman (Manager/Source)

Accountability: Short

Adverse Trend: None



CUMULATIVE VIOLATIONS AND NCVs (TWELVE-MONTH RUNNING TOTAL)

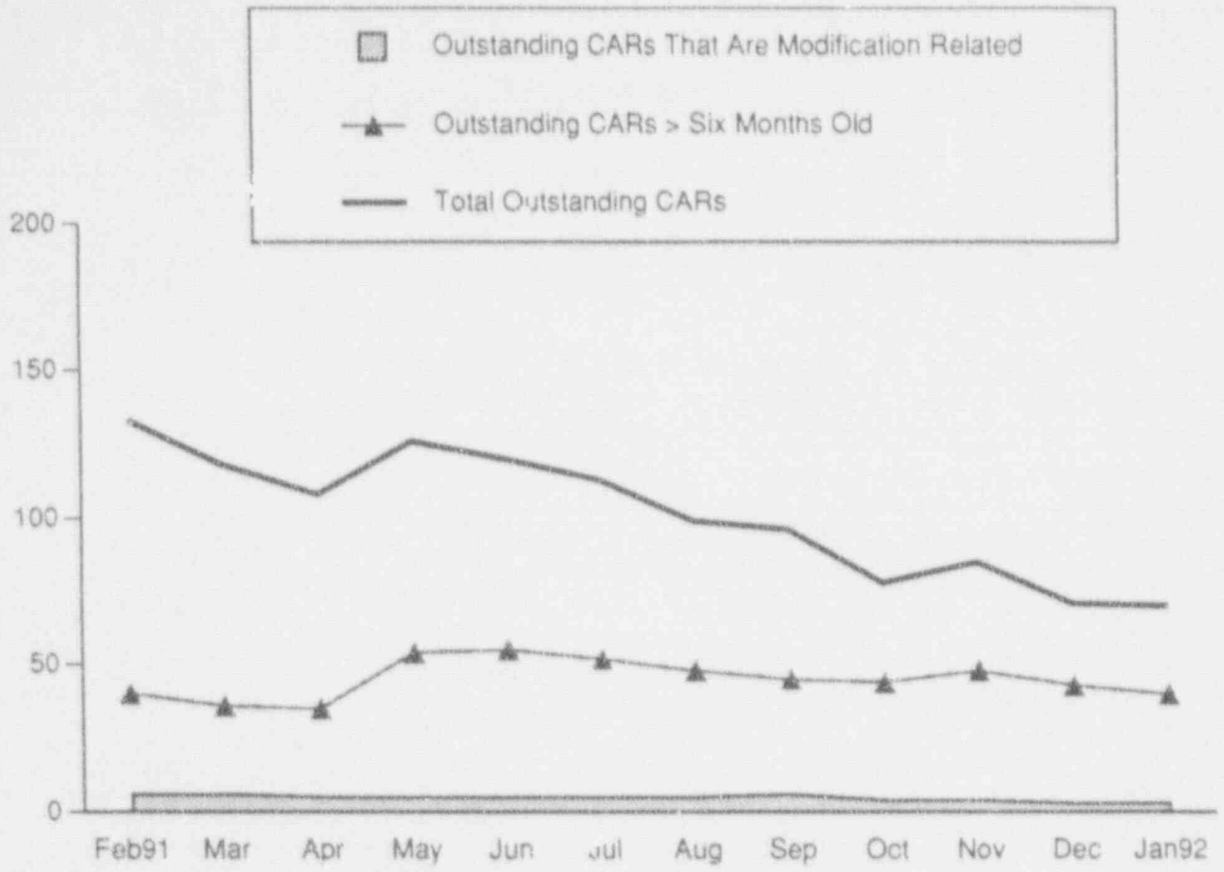
The Cumulative Violations and Non-Cited Violations (NCVs) indicator shows the cumulative number of violations and the cumulative number of NCVs for the last twelve months.

This indicator is one month behind the reporting month due to the time involved with collecting and processing the data for this indicator.

Data Source: Short/Howman (Manager/Source)

Accountability: Short

Adverse Trend: None



OUTSTANDING CORRECTIVE ACTION REPORTS

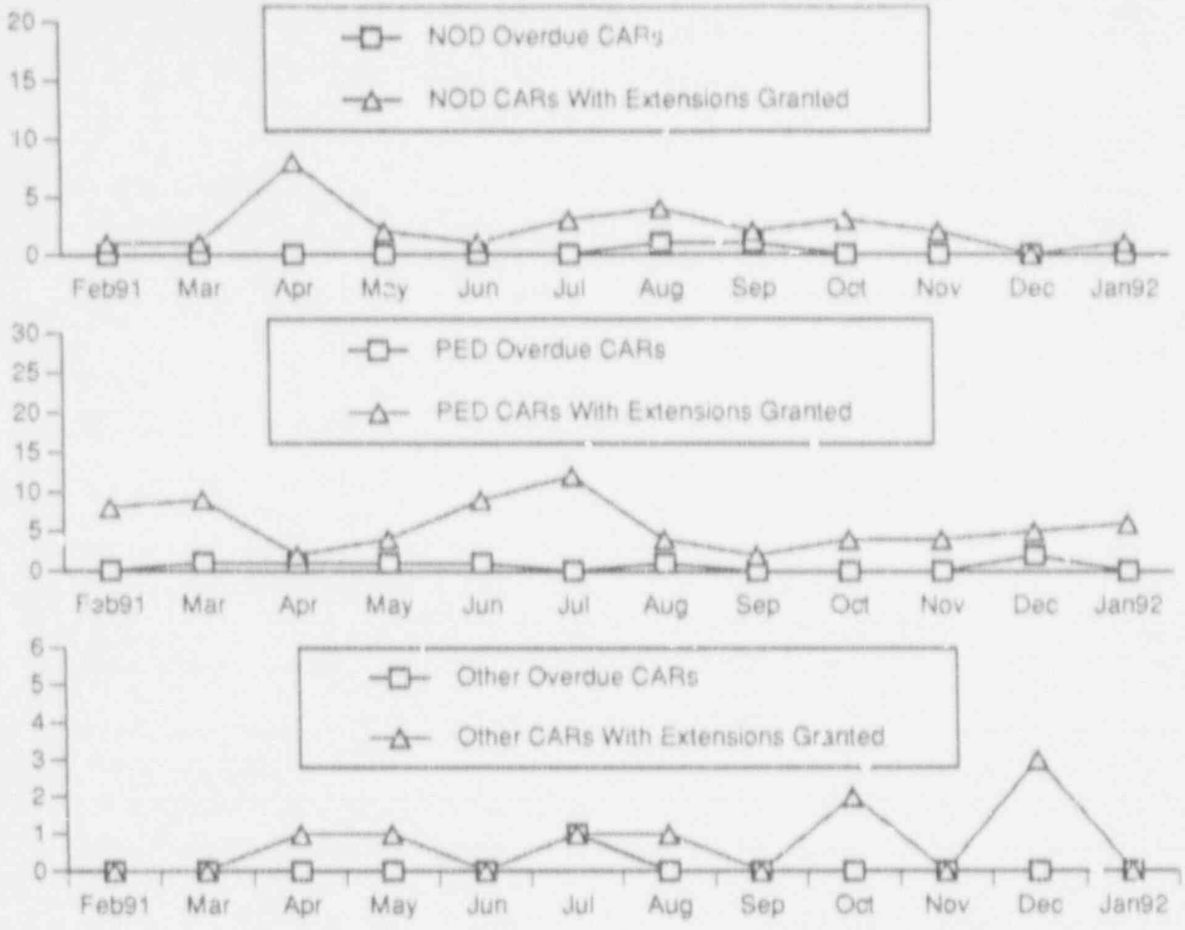
This indicator shows the total number of outstanding Corrective Action Reports (CARs), the number of outstanding CARs that are greater than six months old, and the number of outstanding CARs that are modification related.

At the end of January 1992, there were 70 outstanding CARs, 40 CARs that were greater than six months old, and 3 CARs that were modification related.

Data Source: Orr/Gurtis (Manager/Source)

Accountability: Andrews/Gambhir/Gates

Adverse Trend: None



OVERDUE AND EXTENDED CORRECTIVE ACTION REPORTS

This indicator shows the number of overdue CARs and the number of CARs which received extensions broken down by organization.

Overdue CARs

Overdue CARs	November '91	December '91	January '92
NOD	0	0	0
PED	0	2	0
Others	0	0	0
Total	0	2	0

Extended CARs

Extended CARs	November '91	December '91	January '92
NOD	2	4	1
PED	4	5	6
Others	0	3	0
Total	6	12	7

Data Source: Orr/Gurtis (Manager/Source)

Accountability: Andrews/Gambhir/Gates

Adverse Trend: None

1991 SALP Funct. Area	CARs	Signif. CARs	NRC Viola.	LERs
A) Plant Operation.	30	1	1	6
B) Radiolog. Controls	12	0	3	0
C) Maint/Surveil.	66	0	2	9
D) Emergency Preparedness	16	0	0	0
E) Security	5	0	1	3
F) Engr/Tech Support	93	3	1	12
G) Safety Assess/ Qual. Verif.	27	1	1	2
H) Other	0	0	0	0
Total	249	5	9	32

1992 SALP Funct. Area	CARs	Signif. CARs	NRC Viola.	LERs
A) Plant Operations	2	0	0	1
B) Radiolog. Controls	2	0	0	0
C) Maint/Surveil.	7	0	0	1
D) Emergency Preparedness	1	1	0	0
E) Security	0	0	0	0
F) Engr/Tech Support	1	0	0	1
G) Safety Assess/ Qual. Verif.	2	0	0	0
H) Other	0	0	0	0
Total	15	1	0	3

CARs ISSUED vs. SIGNIFICANT CARs vs NRC VIOLATIONS ISSUED vs. LERs REPORTED

The above matrix shows the number of Corrective Action Reports (CARs) issued by the Nuclear Services Division (NSD) vs. the number of Significant CARs issued by NSD vs. the number of violations issued by the NRC for the Fort Calhoun Station in 1991 and 1992. Included in this table is the number of Licensee Event Reports (LERs) identified by the Station each year. The number of NRC violations reported is one month behind the reporting month due to the time involved in collecting and processing the violations.

Data Source: Orr/Gurtis (Manager/Source)
Short/Howman (Manager/Source)

Accountability: Andrews/Gambhir/Gates

Adverse Trend: None

SEP 15, 20, 21

PERFORMANCE INDICATOR DEFINITIONS

AGE OF OUTSTANDING MAINTENANCE WORK ORDERS
This indicator tracks the total number of outstanding corrective non-outage Maintenance Work Orders at the Fort Calhoun Station versus their age in months.

AMOUNT OF WORK ON HOLD AWAITING PARTS
This indicator is defined as the percentage of open, non-outage, maintenance work orders that are on hold awaiting parts, to the total number of open, non-outage, maintenance work orders.

AUXILIARY FEEDWATER SYSTEM SAFETY SYSTEM PERFORMANCE
The sum of the known (planned and unplanned) unavailable hours and the estimated unavailable hours for the auxiliary feedwater system for the reporting period divided by the critical hours for the reporting period multiplied by the number of trains in the auxiliary feedwater system.

AUXILIARY SYSTEMS CHEMISTRY HOURS OUTSIDE STATION LIMITS
The cumulative hours that the Component Cooling Water system is outside the station chemistry limit. The hours are accumulated from the first sample exceeding the limit until additional sampling shows the parameter to be back within limits.

CARs ISSUED vs. SIGNIFICANT CARs vs. NRC VIOLATIONS vs. LERs REPORTED
Provides a comparison of CARs issued, NRC violations, and LERs reported. This indicator tracks performance for SEP #15, 20, & 21.

CHECK VALVE FAILURE RATE
Compares the Fort Calhoun check valve failure rate to the industry check valve failure rate (failures per 1 million component hours). The data for the industry failure rate is three months behind the PI Report reporting month. This indicator tracks performance for SEP #43.

COLLECTIVE RADIATION EXPOSURE (CUMULATIVE)
Collective radiation exposure is the total external whole-body dose received by all on-site personnel (including contractors and visitors) during a time period, as measured by the thermoluminescent dosimeter (TLD). Collective radiation exposure is reported in units of man-rem. This indicator tracks radiological work performance for SEP #54.

COMPARISON OF VIOLATIONS AMONG REGION IV PLANTS
Provides data on violations per 1000 inspection hours for Region IV nuclear power plants.

CORRECTIVE MAINTENANCE BACKLOG GREATER THAN 3 MONTHS OLD
The percentage of total outstanding corrective maintenance items, not requiring an outage, that are greater than three months old at the end of the period reported.

CUMULATIVE VIOLATIONS & NON-CITED VIOLATIONS (12 MONTH RUNNING TOTAL)
The cumulative number of violations and Non-Cited Violations for the last 12 months.

DAILY THERMAL OUTPUT
This indicator shows the daily core thermal output as measured from computer point XC105 (in thermal megawatts). The 1500 MW Tech Spec limit, and the unmet portion of the 1495 MW FCS daily goal for the reporting month are also shown.

DIESEL GENERATOR UNAVAILABILITY
This indicator provides monthly data on the number of hours of diesel generator planned and unplanned unavailability. The Fort Calhoun goal for the second half of 1991 for the number of unavailable hours per diesel generator has been established based upon the 1990 industry median value provided by INPO.

DECONTAMINATED RADIATION CONTROLLED AREA
The percentage of the Radiation Controlled Area, which includes the auxiliary building, the radwaste building, and areas of the C/RP building, that is decontaminated based on the total square footage. This indicator tracks performance for SEP # 54.

DISABLING INJURY FREQUENCY RATE (LOST TIME ACCIDENT RATE)
This indicator is defined as the number of accidents for all utility personnel permanently assigned to the station, involving days away from work per 200,000 man-hours worked (100 man-years). This does not include contractor personnel. This indicator tracks personnel performance for SEP #25 & 26.

DOCUMENT REVIEW (BIENNIAL)
The Document Review Indicator shows the number of documents reviewed, the number of documents scheduled for review, and the number of document reviews that are overdue for the reporting month. A document review is considered overdue if the review is not complete within 6 months of the assigned due date. This indicator tracks performance for SEP #46.

EMERGENCY AC POWER SYSTEM SAFETY SYSTEM PERFORMANCE

The sum of the known (planned and unplanned) unavailable and the estimated unavailable hours for the emergency AC power system for the reporting period divided by the number of hours in the reporting period multiplied by the number of trains in the emergency AC power system.

EMERGENCY DIESEL GENERATOR UNIT RELIABILITY

This indicator shows the number of failures that were reported during the last 20, 50, and 100 emergency diesel generator demands at the Fort Calhoun Station. Also shown are trigger values which correlate to a high level of confidence that a unit's diesel generators have obtained a reliability of greater than or equal to 95% when the demand failures are less than the trigger values.

1)Number of Start Demands: All valid and inadvertent start demands, including all start-only demands and all start demands that are followed by load-run demands, whether by automatic or manual initiation. A start-only demand is a demand in which the emergency generator is started, but no attempt is made to load the generator.

2)Number of Start Failures: Any failure within the emergency generator system that prevents the generator from achieving specified frequency and voltage is classified as a valid start failure. This includes any condition identified in the course of maintenance inspections (with the emergency generator in standby mode) that definitely would have resulted in a start failure if a demand had occurred.

3)Number of Load-Run Demands: For a valid load-run demand to be counted the load-run attempt must meet one or more of the following criteria:

A)A load-run of any duration that results from a real automatic or manual initiation.

B)A load-run test to satisfy the plant's load and duration as stated in each test's specifications.

C)Other special tests in which the emergency generator is expected to be operated for at least one hour while loaded with at least 50% of its design load.

4)Number of Load-Run Failures: A load-run failure should be counted for any reason in which the emergency generator does not pick up load and run as predicted. Failures are counted during any valid load-run demands.

5)Exceptions: Unsuccessful attempts to start or load-run should not be counted as valid demands or failures when they can be attributed to any of the following:

A)Spurious trips that would be bypassed in the event of an emergency.

B)Malfunction of equipment that is not required during an emergency.

C)Intentional termination of a test because of abnormal conditions that would not have resulted in major diesel generator damage or repair.

D)Malfunctions or operating errors which would have not prevented the emergency generator from being restarted and brought to load within a few minutes.

E)A failure to start because a portion of the starting system was disabled for test purposes, if followed by a successful start with the starting system in its normal alignment.

Each emergency generator failure that results in the generator being declared inoperable should be counted as one demand and one failure. Exploratory tests during corrective maintenance and the successful test that follows repair to verify operability should not be counted as demands or failures when the EDG has not been declared operable again.

EMERGENT MWO PLANNING STATUS (CYCLE 14 REFUELING OUTAGE)

Outage-related Maintenance Work Requests/Maintenance Work Orders (MWRs/MWOs) initiated after the Outage Scope Freeze Date (10/23/91).

ENGINEERING ASSISTANCE REQUEST (EAR) BREAKDOWN

This indicator shows a breakdown, by age of the EAR, of the number of EARs assigned toDesign Engineering Nuclear and System Engineering. This indicator tracks performance for SEP #62.

ENGINEERING CHANGE NOTICE (ECN) BREAKDOWN

This indicator breaks down the number of Engineering Change Notices (ECNs) that are assigned to Design Engineering Nuclear (DEN), System Engineering, and Maintenance. The graphs provide data on ECN Facility Changes open, ECN Substitute Replacement Parts open, and ECN Document Changes open. This indicator tracks performance for SEP #62.

ENGINEERING CHANGE NOTICE (ECN) STATUS

The number of ECNs that were opened, ECNs that were completed, and open backlog ECNs awaiting completion by DEN for the reporting month. This indicator tracks performance for SEP #62.

EQUIPMENT FORCED OUTAGES PER 1000 CRITICAL HOURS

Equipment forced outages per 1000 critical hours is the inverse of the mean time between forced outages caused by equipment failures. The mean time is equal to the number of hours the reactor is critical in a period (1000 hours) divided by the number of forced outages caused by equipment failures in that period.

EQUIVALENT AVAILABILITY FACTOR

This indicator is defined as the ratio of gross available generation to gross maximum generation, expressed as a percentage. Available generation is the energy that can be produced if the unit is operated at the maximum power level permitted by equipment and regulatory limitations. Maximum generation is the energy that can be produced by a unit in a given period if operated continuously at maximum capacity.

PERFORMANCE INDICATOR DEFINITIONS (cont'd)

EXPEDITED PURCHASES
The percentage of expedited purchases which occurred during the reporting month compared to the total number of purchase orders generated.

FORCED OUTAGE RATE
This indicator is defined as the percentage of time that the unit was unavailable due to forced events compared to the time planned for electrical generation. Forced events are failures or other unplanned conditions that require removing the unit from service before the end of the next weekend. Forced events include startup failures and events initiated while the unit is in reserve shutdown (i.e., the unit is available but not in service).

FUEL RELIABILITY INDICATOR
This indicator is defined as the steady-state primary coolant I-131 activity, corrected for the tramp uranium contribution and normalized to a common purification rate. Tramp uranium is fuel which has been deposited on reactor core internals from previous defective fuel or is present on the surface of fuel elements from the manufacturing process. Steady state is defined as continuous operation for at least three days at a power level that does not vary more than + or - 5%. Plants should collect data for this indicator at a power level above 85%, when possible. Plants that did not operate at steady-state power above 85% should collect data for this indicator at the highest steady-state power level attained during the month.
The density correction factor is the ratio of the specific volume of coolant at the RCS operating temperature (540 degrees F, Vf = 0.021436) divided by the specific volume of coolant at normal letdown temperature (120 degrees F at outlet of the letdown cooling heat exchanger, Vf = 0.016204), which results in a density correction factor for FCS equal to 1.32.

GASEOUS RADIOACTIVE WASTE BEING DISCHARGED TO THE ENVIRONMENT
This indicator displays the total number of Curies of all gaseous radioactive nuclides released from FCS.

GROSS HEAT RATE
Gross heat rate is defined as the ratio of total thermal energy in British Thermal Units (BTU) produced by the reactor to the total gross electrical energy produced by the generator in kilowatt-hours (KWH).

HAZARDOUS WASTE PRODUCED
The total amount (in Kilograms) of non-halogenated hazardous waste, halogenated hazardous waste, and other hazardous waste produced by FCS each month.

HIGH PRESSURE SAFETY INJECTION SYSTEM SAFETY SYSTEM PERFORMANCE
The sum of the known (planned and unplanned) unavailable hours and the estimated unavailable hours for the high pressure safety injection system for the reporting period divided by the critical hours for the reporting period multiplied by the number of trains in the high presssure safety injection system.

HOTLINE TRAINING MEMOS
The number of Hotline Training Memos (HTM) that are initiated, closed, and overdue less or greater than 4 weeks for the indicated month. A HTM is a training document sent out for immediate review. The HTM should be reviewed and signed within 5 days of receipt of the HTM.

IN-LINE CHEMISTRY INSTRUMENTS OUT OF SERVICE
Total number of in-line chemistry instruments that are out-of-service in the Secondary System and the Post Accident Sampling System (PASS).

INVENTORY ACCURACY
The percentage of line items that are counted each month by the warehouse which need count adjustments.

INVOICE BREAKDOWN
The number of invoices that are on hold due to shelf life, CQE, and miscellaneous reasons.

LER ROOT CAUSE BREAKDOWN
This indicator shows the number and root cause type for License Event Reports.

LICENSE CANDIDATE EXAMS
This indicator shows the number of SRO and/or RO quizzes and exams that are administered and passed each month. This indicator tracks training performance for SEP #68.

LICENSED OPERATOR REQUALIFICATION TRAINING
The total number of hours of training given to each crew during each cycle. Also provided are the simulator training hours (which are a subset of the total training hours), the number of non-requalification training hours and the number of exam failures. This indicator tracks training performance for SEP #68.

LIQUID RADIOACTIVE WASTE BEING DISCHARGED TO THE ENVIRONMENT
This indicator displays the volume of liquid radioactive waste released from the radioactive waste monitor tanks, to include releases through the plant blowdown if radioactive nuclides are detected in the blowdown system. The curies from all releases from FCS to the Missouri River are also shown.

LOGGABLE/REPORTABLE INCIDENTS (SECURITY)
The total number of security incidents for the reporting month depicted in two graphs. This indicator tracks security performance for SEP#58.

MAINTENANCE EFFECTIVENESS
The number of Nuclear Plant Reliability Data System (NPRDS) components with more than 1 failure and the number of NPRDS components with more than 2 failures for the last eighteen months.

MAINTENANCE WORK ORDER BACKLOG
The number of corrective non-outage maintenance work orders that remain open at the end of the reporting month. This indicator was added to the PI Report to trend open corrective non-outage maintenance work orders as stated in SEP #36.

MAINTENANCE WORK ORDER BREAKDOWN
This indicator is a breakdown of corrective non-outage maintenance work orders by several categories that remain open at the end of the reporting month. This indicator tracks maintenance performance for SEP #36.

MAINTENANCE OVERTIME
The % of overtime hours compared to normal hours for maintenance. This includes OPPD personnel as well as contract personnel.

MATERIAL REQUEST PLANNING
The percent of material requests (MRs) for issues with their request date the same as their need date compared to the total number of MRs.

MAXIMUM INDIVIDUAL RADIATION EXPOSURE
The total maximum amount of radiation received by an individual person working at FCS on a monthly, quarterly, and annual basis.

NUMBER OF HOT SPOTS
The number of radiological hot spots which have been identified and documented to exist at FCS at the end of the reporting month. A hot spot is a small localized source of radiation. A hot spot occurs when the contact dose rate of an item is at least 5 times the General Area dose rate and the item's dose rate is equal to or greater than 100 mRem/hour.

NUMBER OF NPRDS MULTIPLE FAILURES
The number of NPRDS reportable failures over the preceeding eighteen months sorted by component manufacturer and model number.

NUMBER OF NUCLEAR PLANT RELIABILITY DATA SYSTEM (NPRDS) FAILURE REPORTS SUBMITTED
The data plotted is the total number of NPRDS component failures (confirmed and possible) and the number of confirmed NPRDS component failures. The total number of NPRDS component failures are based on the number of failure reports that have been sent to the Institute of Nuclear Power Operations (INPO). Confirmed NPRDS component failures are based upon failure reports that have been accepted by INPO. Possible NPRDS component failures are based upon failure reports that are still under review by INPO. NPRDS is a utility industry users group program which has been outlined by INPO and implemented at FCS.

NUMBER OF OUT-OF-SERVICE CONTROL ROOM INSTRUMENTS
A control room instrument that cannot perform its design function is considered as out-of-service. A control room instrument which has had a Maintenance Work Order (MWO) written for it and has not been repaired by the end of the reporting period is considered out-of-service and will be counted. The duration of the out-of-service condition is not considered. Computer CRTs are not considered as control room instruments.

NUMBER OF PERSONNEL ERRORS REPORTED IN LERS
The number of Licensee Event Reports (LERs) attributed to personnel error on the original LER submittal. This indicator trends personnel performance for SEP #15.

NUMBER OF MISSED SURVEILLANCE TESTS RESULTING IN LICENSEE EVENT REPORTS
The number of Surveillance Tests (STs) that result in Licensee Event Reports (LERs) during the reporting month. This indicator tracks missed STs for SEP #60 & 61.

OPERATIONS AND MAINTENANCE BUDGET
The year- to- date budget compared to the actual expenditures for Operations and Maintenance departments.

OUTSTANDING CORRECTIVE ACTION REPORTS
This indicator displays the total number of outstanding Corrective Action Reports (CARs), the number of CARs that are older than six months and the number of modification related CARs.

OUTSTANDING MODIFICATIONS
The number of Modification Requests (MRs) in any state between the issuance of a Modification Number and the completion of the drawing update.
1.)Form FC-1133 Backlog/In Progress. This number represents modification requests that have not been plant approved during the reporting month.
2.)Modification Requests Being Reviewed. This category includes:
A.)Modification Requests that are not yet reviewed.
B.)Modification Requests being reviewed by the Nuclear Projects Review Committee (NPRC).
C.)Modification Requests being reviewed by the Nuclear Projects Committee (NPC).
These Modification Requests may be reviewed several times before they are approved for accomplishment or cancelled. Some of these Modification Requests are returned to Engineering for more information, some ap-

proved for evaluation, some approved for study, and some approved for planning. Once planning is completed and the scope of the work is clearly defined, these Modification Requests may be approved for accomplishment with a year assigned for construction or they may be cancelled. All of these different phases require review.
3)Design Engineering Backlog/In Progress. Nuclear Planning has assigned a year in which construction will be completed and design work may be in progress.
4)Construction Backlog/In Progress. The Construction Package has been issued or construction has begun but the modification has not been accepted by the System Acceptance Committee (SAC).
5)Design Engineering Update Backlog/In Progress. PED has received the Modification Completion Report but the drawings have not been updated.
The above mentioned outstanding modifications do not include modifications which are proposed for cancellation.

OVERDUE AND EXTENDED CORRECTIVE ACTION REPORTS
The number of overdue Corrective Action Reports (CARs) and the number of CARs which received extensions broken down by organization for the last 6 months.

PERCENT OF COMPLETED SCHEDULED MAINTENANCE ACTIVITIES
The % of the number of completed maintenance activities as compared to the number of scheduled maintenance activities each week. This % is shown for each maintenance craft. Maintenance activities include MWRs, MWOs, STs, PMOs, calibrations, and other miscellaneous activities. These indicators track Maintenance performance for SEP #33.

PERSONNEL TURNOVER RATE
The ratio of the number of turnovers to average employment. A turnover is a vacancy created by voluntary resignation from the company. Retirement, death, termination, transfers within the company, and part-time employees are not considered in turnover.

PREVENTIVE MAINTENANCE ITEMS OVERDUE
This indicator is defined as the % of preventive maintenance items in the month that were not completed by the scheduled date plus a grace period equal to 25 % of the scheduled interval. This indicator tracks preventive maintenance activities for SEP #41.

PRIMARY SYSTEM CHEMISTRY % OF HOURS OUT OF LIMIT
The % of hours out of limit are for six primary chemistry parameters divided by the total number of hours possible for the month. The key parameters used are: Lithium, Chloride, Hydrogen, Dissolved Oxygen, Fluoride, and Suspended Solids. EPRI limits are used.

PROCEDURAL NONCOMPLIANCE INCIDENTS (MAINTENANCE)
The number of identified incidents concerning maintenance procedural problems, the number of closed IRs related to the use of procedures (includes the number of closed IRs caused by procedural noncompliance), and the number of closed procedural noncompliance IRs. This indicator trends personnel performance for SEP #15, 41 & 44.

RADIOLOGICAL WORK PRACTICES PROGRAM
The number of identified poor radiological work practices (PRWP) for the reporting month. This indicator tracks radiological work performance for SEP #52.

RATIO OF PREVENTIVE TO TOTAL MAINTENANCE
The ratio of preventive maintenance (including surveillance testing and calibration procedures) to the sum of non-outage corrective maintenance and preventive maintenance completed over the reporting period. The ratio, expressed as a percentage, is calculated based on man-hours. This indicator tracks preventive maintenance activities for SEP #41.

RECORDABLE INJURY/ILLNESS CASES FREQUENCY RATE
The number of injuries raquiring more than normal first aid per 200,000 man-hours worked. This indicator trends personnel performance for SEP #15, 25 & 26.

SECONDARY SYSTEM CHEMISTRY PERFORMANCE INDEX
The Chemistry Performance Index (CPI) is a calculation based on the concentration of key impurities in the secondary side of the plant. These key impurities are the most likely cause of deterioration of the steam generators. The chemistry parameters are reported only for the period of time greater than 30 percent power.
The CPI is calculated using the following equation: $CPI = (Ka/0.8) + (Na/20) + (O_2/10)) / 3$ where the following are monthly averages of: Ka = average blowdown cation conductivity, Na = average blowdown sodium concentration, O_2 = average condensate pump discharge dissolved oxygen concentration.

SECURITY NON-SYSTEM FAILURES
The number of Security loggable/reportable incidents is broken down into the following categories:
1) Licensee Designated Vehicles (LDVs) - Incidents related to the use of LDVs, e.g., keys left in the vehicle, loss of keys, or failure to return keys.
2) Security Badges - Incidents associated with improper use and handling of security badges. Incidents include security badges that are lost, taken out of the protected area, out of control on-site, or inadvertently destroyed or broken.
3) Access Control and Authorization - Administrative and procedural errors associated with the use of the card-access system such as tailgating, incorrect security badge issued, and improper escort procedures. This also includes incidents that were caused by incorrect access authorization information entered into the security system computer.
4) Security Key Control - Incidents involving Security key control, e.g., lost Security keys, Security keys removed

from site, or failure to return Security keys. This type of event does not reflect incidents concerning LDV keys. This indicator tracks security performance for SEP #58.

SECURITY SYSTEM FAILURES
Incidents involving alarm system failures, CCTV failures, security computer failures, search equipment failures, door hardware failures, and card reader failures. These system failures are further categorized as follows:
1)Alarm System Failure - Detection system events involving false/nuisance alarms and mechanical failures.
2)Alarm System Environmental Failures - Degradations to detection system performance as a result of environmental conditions (i.e., rain, snow, frost).
3)CCTV Failures - Mechanical failures to all CCTV hardware components.
4)CCTV Environmental Failures - Degradations to CCTV performance as a result of environmental conditions (i.e., rain, snow, frost, fog, sunspots, shade).
5) Security Computer Failures - Failure of the multiplexer, central processing unit, and other computer hardware and software. This category does not include software problems caused by operator error in using the software.
6) Search Equipment Failures - Failures of x-ray, metal, or explosive detectors and other equipment used to search for contraband. This also includes incidents where the search equipment is found defective or did not function properly during testing.
7) Door Hardware Failures - Failure of the door alarm and door hardware such as latches, electric strikes, doorknobs, locks, etc.
8) Card Reader Failures - Incidents caused by mechanical breakdown of card readers, but not improper use of the card readers. (See Access Control and Authorization). This indicator tracks security performance for SEP #58.

SPARE PARTS ISSUED
The dollar value of the spare parts issued for FCS during the reporting period.

STAFFING LEVEL
The actual staffing level and the authorized staffing level for the Nuclear Operations Division, the Production Engineering Division, and the Nuclear Services Division. This indicator tracks performance for SEP #24.

STATION NET GENERATION
The net generation (sum) produced by the FCS during the reporting month.

STOCKOUT RATE
The total number of Pick Tickets that were generated during the reporting month and the total number of Pick Tickets that were generated during the reporting month when the amount of parts requested is equal to or less than the minimum stocking level and parts are not available.

TEMPORARY MODIFICATIONS
The number of temporary mechanical and electrical configurations to the plant's systems.
1)Temporary configurations are defined as electrical jumpers, electrical blocks, mechanical jumpers, or mechanical blocks which are installed in the plant operating systems and are not shown on the latest revision of the P&ID, schematic, connection, wiring, or flow diagrams.
2)Jumpers and blocks which are installed for Surveillance Tests, Maintenance Procedures, Calibration Procedures, Special Procedures, or Operating Procedures are not considered as temporary modifications unless the jumper or block remains in place after the test or procedure is complete. Jumpers and blocks installed in test or lab instruments are not considered as temporary modifications.
3)Scaffolding is not considered a temporary modification. Jumpers and blocks which are installed and for which MRs have been submitted will be considered as temporary modifications until final resolution of the MR and the jumper or block is removed or is permanently recorded on the drawings. This indicator tracks temporary modifications for SEP #62 & 71.

THERMAL PERFORMANCE
The ratio of the design gross heat rate (corrected) to the adjusted actual gross heat rate, expressed as a percentage.

TOTAL INSTRUCTION HOURS
The total number and department breakdown of training instruction hours administered by the Training Center.

TOTAL HOURS OF STUDENT TRAINING
The total number of student hours of training for Operations, Maintenance, Chemistry/Radiation Protection, Technical Support, General Employee Training, and Other Training conducted for FCS.

TOTAL SKIN AND CLOTHING CONTAMINATIONS
Reportable skin and clothing contaminations above background levels greater than 5000 dpm/100 cm squared. This indicator trends personnel performance for SEP #15 & 54.

UNIT CAPABILITY FACTOR
The ratio of the available energy generation over a given time period to the reference energy generation over the same time period, expressed as a percentage.

UNPLANNED AUTOMATIC REACTOR SCRAMS WHILE CRITICAL
This indicator is defined as the number of unplanned automatic scrams (reactor protection system actuations) that occur while the reactor is critical. The indicator is further defined as follows:
1)Unplanned means that the scram was not part of a planned test or evolution.
2)Scram means the automatic shutdown of the reactor

by a rapid insertion of all control rods that is caused by actuation of the reactor protection system. The scram signal may have resulted from exceeding a setpoint or may have been spurious.
3)Automatic means that the initial signal that caused actuation of the reactor protection system logic was provided from one of the sensors monitoring plant parameters and conditions, rather than the manual scram switches (or pushbuttons) in the main control room.
4)Critical means that during the steady-state condition of the reactor prior to the scram, the effective multiplication factor (k_{eff}) was equal to one.

UNPLANNED CAPABILITY LOSS FACTOR
The ratio of the unplanned energy losses during a given period of time, to the reference energy generation, expressed as a percentage.

UNPLANNED SAFETY SYSTEM ACTUATIONS - (INPO DEFINITION)
This indicator is defined as the sum of the following safety system actuations:
1)The number of unplanned Emergency Core Cooling System (ECCS) actuations that result from reaching an ECCS actuation setpoint or from a spurious/inadvertent ECCS signal.
2)The number of unplanned emergency AC power system actuations that result from a loss of power to a safeguards bus. An unplanned safety system actuation occurs when an actuation setpoint for a safety system is reached or when a spurious or inadvertent signal is generated (ECCS only), and major equipment in the system is actuated. Unplanned means that the system actuation was not part of a planned test or evolution. The ECCS actuations to be counted are actuations of the high pressure injection system, the low pressure injection system, or the safety injection tanks.

UNPLANNED SAFETY SYSTEM ACTUATIONS (NRC DEFINITION)
The number of safety system actuations which include (only) the High Pressure Safety Injection System, the Low Pressure Safety Injection System, the Safety Injection Tanks, and the Emergency Diesel Generators. The NRC classification of safety system actuations includes actuations when major equipment is operated and when the logic systems for the above safety systems are challenged.

VIOLATIONS PER 1000 INSPECTION HOURS
This indicator is defined as the number of violations sited in NRC inspection reports for FCS per 1000 NRC inspection hours. The violations are reported in the year that the inspection was actually performed and not based on when the inspection report is received. The hours reported for each inspection report are used as the inspection hours.

VOLUME OF LOW-LEVEL SOLID RADIOACTIVE WASTE
This indicator is defined as the volume of low-level solid radioactive waste actually shipped for burial. This indicator also shows the volume of low-level radioactive waste which is in temporary storage, the amount of radioactive oil that has been shipped off-site for processing, and the volume of solid dry radioactive waste which has been shipped off-site for processing. Low-level solid radioactive waste consists of dry active waste, sludges, resins, and evaporator bottoms generated as a result of nuclear power plant operation and maintenance. Dry radioactive waste includes contaminated rags, cleaning materials, disposable protective clothing, plastic containers, and any other material to be disposed of at a low-level radioactive waste disposal site, except resin, sludge, or evaporator bottoms. Low-level refers to all radioactive waste that is not spent fuel or a by-product of spent fuel processing. This indicator tracks radiological work performance for SEP #54.

SAFETY ENHANCEMENT PROGRAM INDEX

The purpose of the Safety Enhancement Program (SEP) Performance Indicators Index is to list performance indicators related to SEP items with parameters that can be trended.

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T. M. Roisdorff
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D. G. Ried
G. K. Samide
T. J. Sandene
B. A. Schmidt
S. T. Schmitz
F. C. Scofield
L. G. Sealock
H. J. Sefick
D. K. Sentel
J. W. Shannon
R. W. Short
C. F. Simmons
E. L. Skaggs
J. L. Skiles
F. K. Smith
R. L. Sorenson
J. A. Spilker
K. E. Steele
W. Steele
H. F. Sterba
G. A. Teeple
M. A. Tesar
T. G. Therkildsen
J. W. Tills
D. R. Trausch
P. R. Turner
J. M. Uhland
C. F. Vanecek
J. M. Waszak
G. R. Williams
S. J. Willrett
W. C. Woerner

POSITIVE TREND REPORT

The Positive Trend Report highlights several Performance Indicators with data representing continued performance above the stated goal and indicators with data representing significant improvement in recent months.

The following indicators have been selected as exhibiting positive trends:

Disabling Injury/Illness Frequency Rate
(Page 17)
The Disabling Injury/Illness Frequency Rate for the month is zero.

Liquid Radioactive Waste Being Discharged to the Environment
(Page 55)
The 1991 total for liquid radioactive waste being discharged to the environment was well below the Fort Calhoun goal.

End of Positive Trend Report

ADVERSE TREND REPORT

A Performance Indicator which has data representing three (3) consecutive months of declining performance constitutes an adverse trend. The Adverse Trend Report explains the conditions under which certain indicators are showing adverse trends. An explanation will be provided for indicators with data representing three months of declining performance that have been labeled as adverse trends.
The following indicators are exhibiting adverse trends for the reporting month:

Age of Outstanding Maintenance Work Orders
(Page 25)
The number of MWOs 3-6 months old and the number of MWOs 9-12 months old has increased for three consecutive months.

Maintenance Work Order Breakdown (Corrective Non-Outage)
(Page 26)
The number of Open MWOs >3 months old and the number of Open Safety Related MWOs >3 months old has increased for three consecutive months.

Corrective Maintenance Backlog Greater Than Three Months Old (Non-Outage)
(Page 27)
The non-outage corrective maintenance backlog greater than three months old has increased for three consecutive months.

End of Adverse Trend Report.

INDICATORS NEEDING INCREASED MANAGEMENT ATTENTION REPORT

This section lists the indicators which show inadequacies as compared to the OPPD goal and indicators which show inadequacies as compared to the industry upper quartile. The indicators will be compared to the industry median or upper quartile as relevant to that indicator.

Fuel Reliability Indicator
(Page 14)
The FRI value for the reporting month (3.03) is above the industry median value of 1.6.

Preventive Maintenance Items Overdue
(Page 29)
The percentage of maintenance items overdue for the reporting month (0.97%) exceeds the 1992 Fort Calhoun goal of 0.5%.

Number of Out-of-Service Control Room Instruments
(Page 30)
The number of out-of-service control room instruments for the reporting month (24) is above the 1992 Fort Calhoun goal of 13.

Secondary System Chemistry
(Page 44)
The secondary system chemistry CPI value for the reporting month (0.461) is above the Fort Calhoun goal of 0.45.

In-Line Chemistry Instruments Out-of-Service
(Page 47)
The number of in-line chemistry instruments out-of-service for the reporting month (15) is above the 1992 Fort Calhoun goal of 5.

Gaseous Radioactive Waste Being Discharged to the Environment
(Page 54)
The 1991 total for gaseous radioactive waste being discharged to the environment is above the Fort Calhoun goal.

Amount of Work on Hold Awaiting Parts
(Page 59)
The amount of work on hold awaiting parts for the reporting month (3.9%) is above the Fort Calhoun goal of 3.5%.

Stockout Rate
(Page 61)
For the reporting month, the percentage of pick tickets generated when the amount of parts requested is equal to or less than the minimum stocking level and parts are not available is above the Fort Calhoun goal of 2%.

Temporary Modifications
(Page 65)
The age of temporary modifications for the reporting month exceeds the Fort Calhoun Goal.

Recordable Injury/Illness Cases Frequency Rate
(Page 69)
The recordable injury/illness cases frequency rate for the reporting month (2.37) is above the Fort Calhoun goal of 2.0.

End of Management Attention Report.

PERFORMANCE INDICATOR REPORT IMPROVEMENTS/CHANGES

The following INPO Indicators have been added to the report:

Thermal Performance (Page 10)

Unplanned Capability Loss Factor (Page 13)

Safety System Performance
- High Pressure Safety Injection System (page 6)
- Auxiliary Feedwater System (page 7)
- Emergency AC Power System (page 8)

Industry Median Values, as provided by INPO, have been added where appropriate.

Security Indicators

The 1992 Security Performance Indicators have been modified based upon a continuing analysis of the loggable/reportable security incidents. Categories such as **LDVs, Security Key Control,** and **Card Readers** have been deleted due to a consistent downward trend in these areas. Indicators which have been added are **Security Force Errors, 1991 versus 1992 Security System Failures**, and **Unsecured Doors**. The addition and deletion of the above categories will assist in our efforts to establish a consistent reporting criteria for the Security Services Department.

LER Root Cause Breakdown
(Page 71)
This indicator has been added to the report.

The following Refueling Outage Indicators have been deleted because the outage has begun:

MWO Planning Status

Progress of Cycle 14 Outage Modification Planning

Overall Project Status

End of Indicator Improvement/Changes Report.

FORT CALHOUN STATION
OPERATING CYCLES AND REFUELING OUTAGE DATES

Event	Date Range	Production (MWH)	Cumulative (MWH)
Cycle 1	09/26/73 - 02/01/75	3,299,639	3,299,639
1st Refueling	02/01/75 - 05/09/75	*	*
Cycle 2	05/09/75 - 10/01/76	3,853,322	7,152,961
2nd Refueling	10/01/76 - 12/13/76	*	*
Cycle 3	12/13/76 - 09/30/77	2,805,927	9,958,888
3rd Refueling	09/30/77 - 12/09/77	*	*
Cycle 4	12/09/77 - 10/14/78	3,026,832	12,985,720
4th Refueling	10/14/78 - 12/24/78	*	*
Cycle 5	12/24/78 - 01/18/80	3,882,734	16,868,454
5th Refueling	01/18/80 - 06/11/80	*	*
Cycle 6	06/11/80 - 09/18/81	3,899,714	20,768,168
6th Refueling	09/18/81 - 12/21/81	*	*
Cycle 7	12/21/81 - 12/06/82	3,561,866	24,330,034
7th Refueling	12/06/82 - 04/07/83	*	*
Cycle 8	04/07/83 - 03/03/84	3,406,371	27,736,405
8th Refueling	03/03/84 - 07/12/84	*	*
Cycle 9	07/12/84 - 09/28/85	4,741,488	32,477,893
9th Refueling	09/28/85 - 01/16/86	*	*
Cycle 10	01/16/86 - 03/07/87	4,356,753	36,834,646
10th Refueling	03/07/87 - 06/0E'87	*	*
Cycle 11	06/08/87 - 09/27/88	4,936,859	41,771,505
11th Refueling	09/27/88 - 01/31/89	*	*
Cycle 12	01/31/89 - 02/17/90	3,817,954	45,589,459
12th Refueling	02/17/90 - 05/29/90	*	*
Cycle 13#	05/29/90 - 02/01/92	# Planned Dates	*
13th Refueling#	02/01/92- 05/01/92	*	*
Cycle 14#	05/01/92- 09/18/93	*	*
14th Refueling	09/18/93 - 11/13/93	*	*
Cycle 15#	11/13/93 - 03/11/95	*	*
15th Refueling#	03/11/95 - 05/06/95	*	*

FORT CALHOUN STATION
CURRENT PRODUCTION AND OPERATIONS "RECORDS"

First Sustained Reaction	August 5, 1973 (5:47 p.m.)
First Electricity Supplied to the System	August 25, 1973
Commercial Operation (180,000 KWH)	September 26, 1973
Achieved Full Power (100%)	May 4, 1974
Longest Run (477 days)	June 8, 1987-Sept. 27,1988
Highest Monthly Net Generation (364,468,800 KWH)	October 1987
Most Productive Fuel Cycle (4,936,859 MWH)(Cycle 11)	June 8, 1987-Sept. 27, 1988