WHC-SP-0081-10

Fast Flux Test Facility Performance Monitoring Management Information May 1988

Prepared for the U.S. Department of Energy
Assistant Secretary for Nuclear Energy

Westinghouse
Hanford Company Richland, Washington

Hanford Operations and Engineering Contractor for the
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FOREWORD

The purpose of this report is to provide management with performance data on key performance indicators selected from the FFTF Early Warning System performance indicators. This report contains the results for key performance indicators divided into two categories of "overall" and "other". The "overall" performance indicators, when considered in the aggregate, provide one means of monitoring overall plant performance. Overall performance indicators are listed in Table 1. The "other" performance indicators, listed in Table 2, are considered useful management tools for assessing the specific areas they address.

The data should be used in conjunction with the results of other management assessment activities to focus improvement efforts. Use of these key performance indicators as a group is stressed, since focusing on a single indicator or a narrow set of indicators can be counterproductive both to safety and to long-term performance improvement.

Any concerns regarding the accuracy or analysis of the specific indicator should be addressed to the responsible manager identified on the figure. This report must be reviewed with the understanding that both the design and the mission are different for FFTF compared to commercial power reactors.

FFTF PLANT MANAGER'S ASSESSMENT

MAY 1988

The plant operated at full power until May 6 when it was shutdown for a planned outage for refueling and maintenance. The success of outage activity placed us slightly ahead of our 37-day outage schedule at month's end.

Operational efficiency in May was again 100%. We have operated over 110 effective full power days this year through Cycle 10A. As a result, we remain on target for meeting our 96% Operational Efficiency Factor and 70% Capacity Factor goals for 1988.

Focus on outage activity resulted in little progress on further reduction of maintenance backlogs. We did experience an unfavorable trend in spare parts availability and a slight increase in overdue commitments. Otherwise, there were no significant trends apparent in May.

Please route your copy of this report to your staff and direct any questions or comments to W.M. Ritter (376-0758).

D. J. Newland

D. J. Newland
FFTF Plant Manager

TABLE 1

OVERALL PERFORMANCE INDICATORS

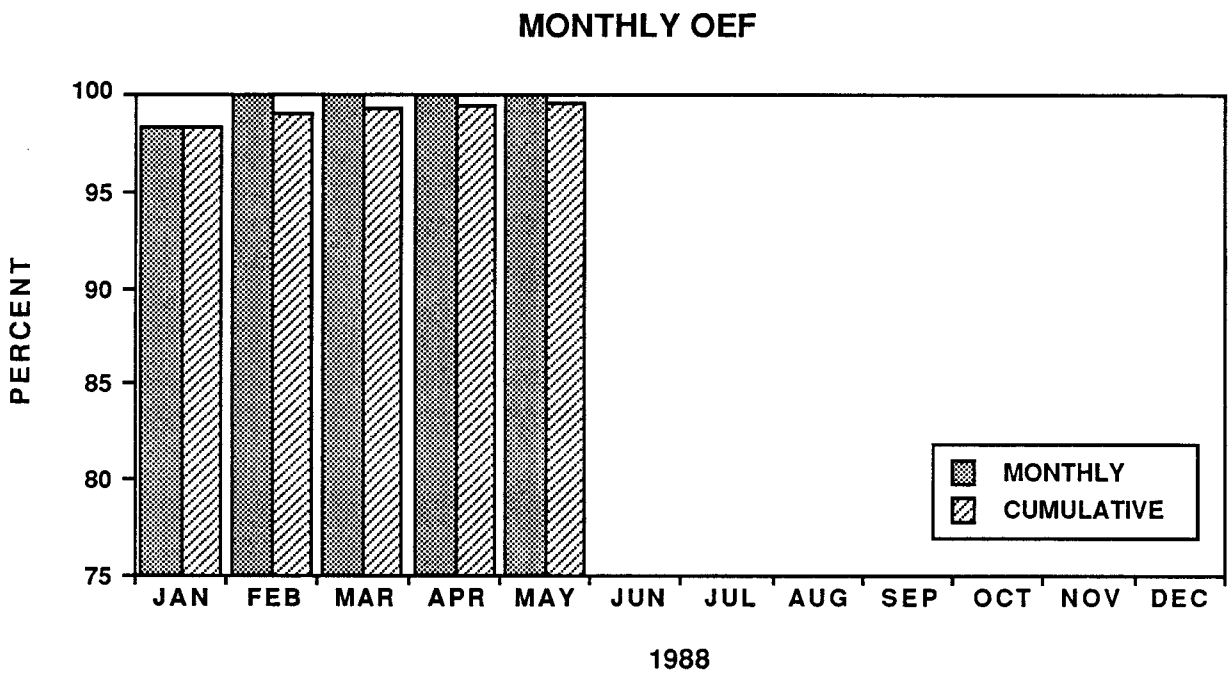
FIGURE	PERFORMANCE INDICATOR	AREA
1	Operational Efficiency Factor	OPS
2	Unplanned Scrams	OPS
3	Forced Outages	OPS
4	Unusual Occurrence Reports	OPS
5	Personnel Radiation Exposure	RADCON
6	Industrial Safety Statistics	INDSAF
7	Corrective Maintenance Workoff Rate	MAINT

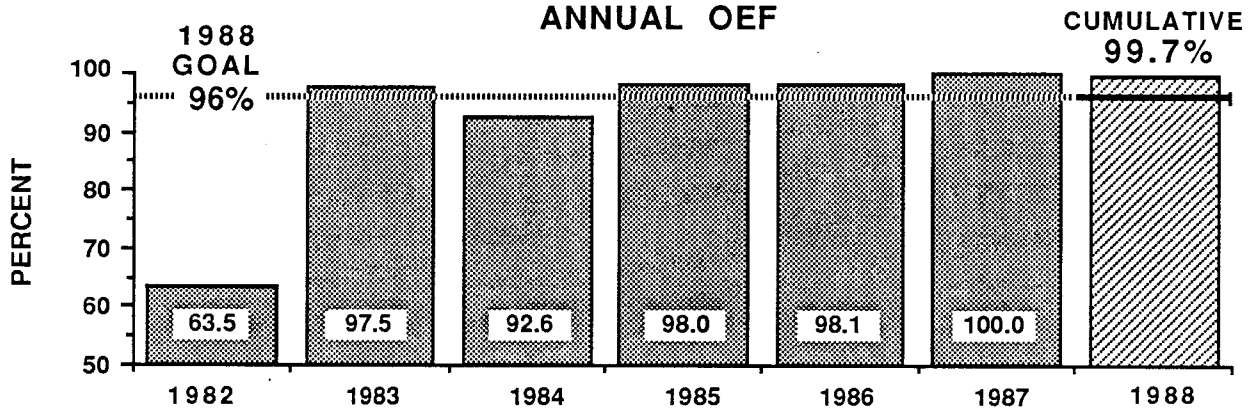
TABLE 2

OTHER PERFORMANCE INDICATORS

FIGURE	PERFORMANCE INDICATOR	AREA
8	Capacity Factor	OPS
9	Availability Factor	OPS
10	Forced Power Reductions	OPS
11	Reportable Events	OPS
12	(TBD)	
13	Corrective Maintenance Backlog	MAINT
14	Protective Maintenance Performance	MAINT
15	Modification Status	ENG
16	Temporary Modification Status	ENG
17	Essential Drawing Status	ENG
18	Repair Parts Availability	MAINT
19	Staffing Status	PERS
20	(TBD)	
21	Solid Radioactive Waste	RADCON
22	Liquid Radioactive Waste	RADCON
23	Skin Contaminations	RADCON
24	Safety/Quality Commitments	QA
25	Outage Planning Performance	MAINT
26	FFTF Operating Histogram	OPS

OPERATIONAL EFFICIENCY FACTOR





PURPOSE

TO MONITOR THE PLANT'S ABILITY TO MEET THE OPERATIONAL SCHEDULE.

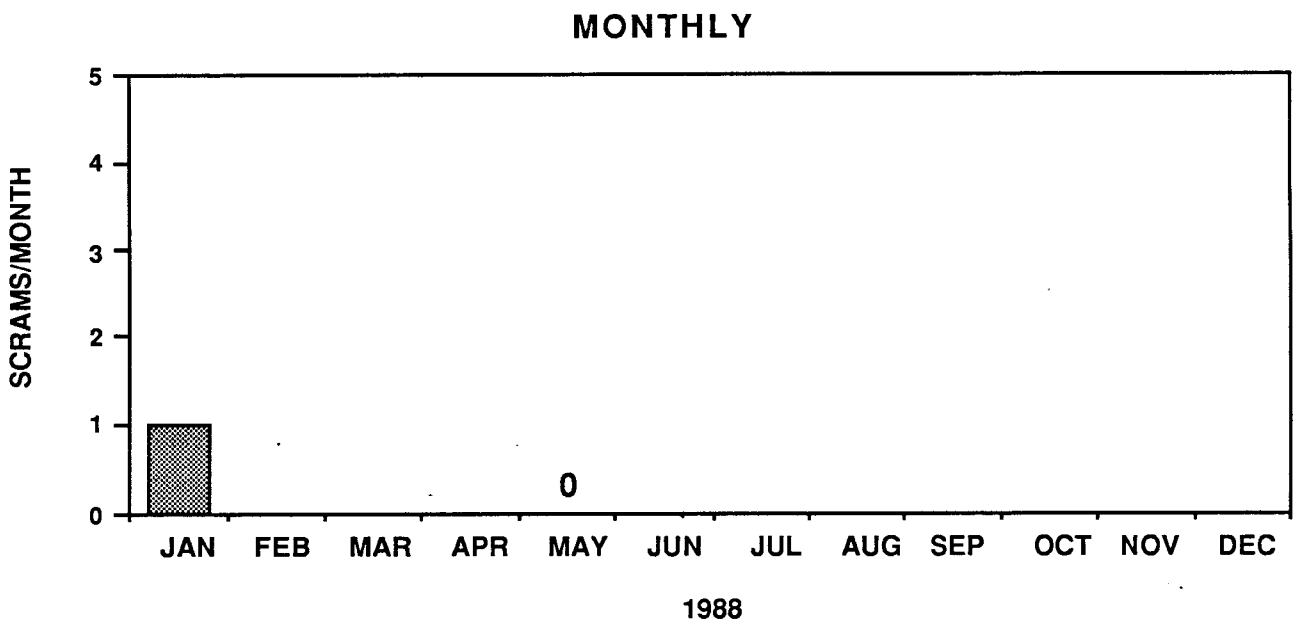
$$\text{OEF} = \frac{\text{ACTUAL OPERATING DAYS + PLANNED OUTAGE DAYS + TEST OUTAGE DAYS}}{\text{CALENDAR DAYS}}$$

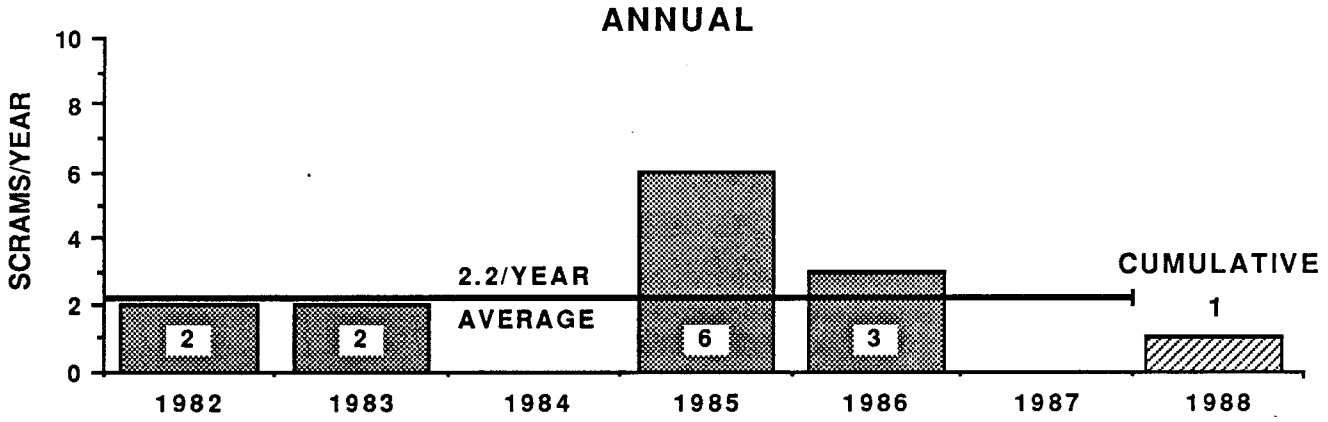
ASSESSMENT

THE PLANT WAS IN A SCHEDULED OUTAGE PERIOD FROM MAY 7 THROUGH THE END OF THE MONTH.

MAY 1988	W. M. RITTER	376-0758	FIGURE 1

UNPLANNED SCRAMS





PURPOSE

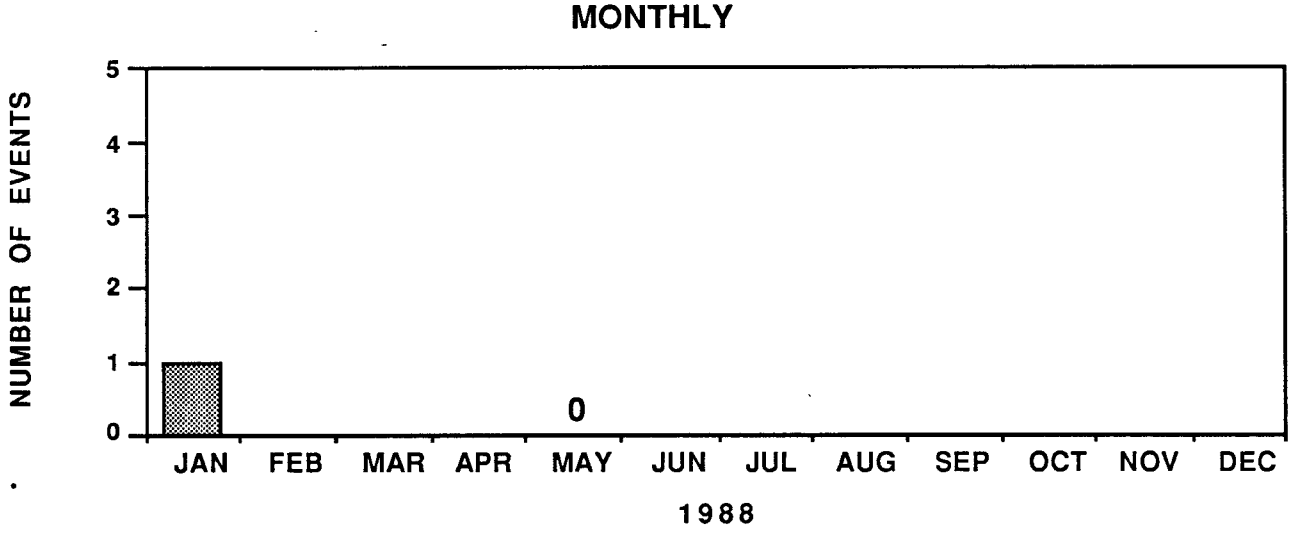
TO MONITOR THE NUMBER OF UNPLANNED AUTOMATIC SCRAMS THAT OCCUR WHILE THE REACTOR IS CRITICAL. UNPLANNED MEANS THAT THE SCRAM WAS NOT PART OF A PLANNED OPERATION OR TEST. UNPLANNED AUTOMATIC SCRAMS INCLUDE, FOR EXAMPLE, AUTOMATIC SCRAMS RESULTING FROM A TRANSIENT, AN EQUIPMENT FAILURE, A SPURIOUS SIGNAL, OR HUMAN ERROR.

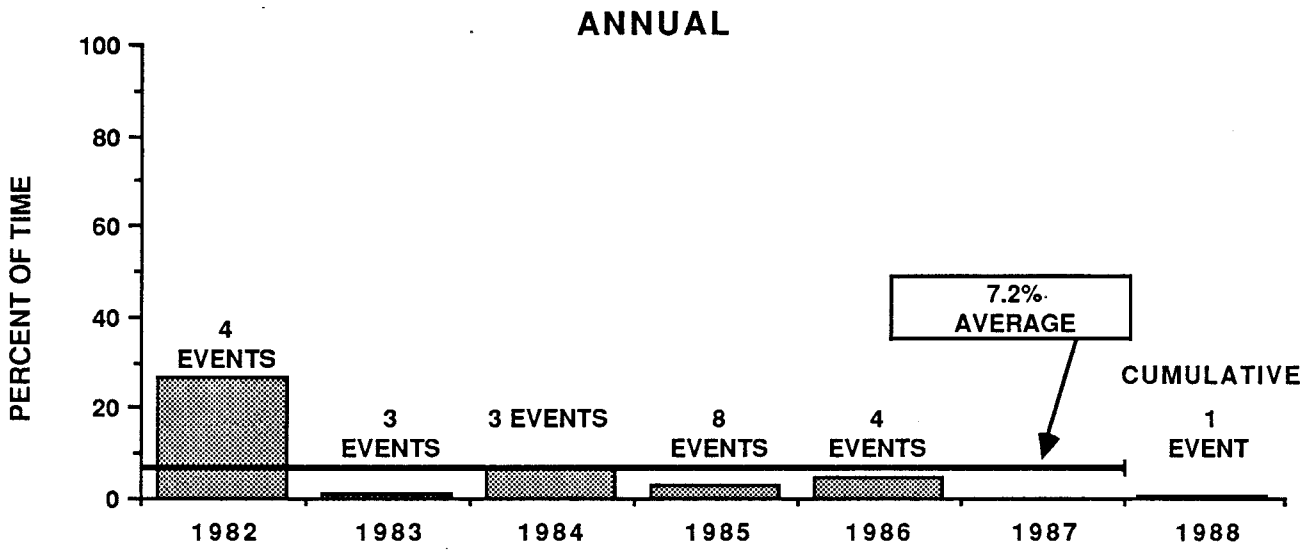
ASSESSMENT

THERE WERE NO UNPLANNED AUTOMATIC SCRAMS DURING THE MONTH OF MAY.

MAY 1988	D. J. SWAIM	376-0604	FIGURE 2

FORCED OUTAGES





PURPOSE

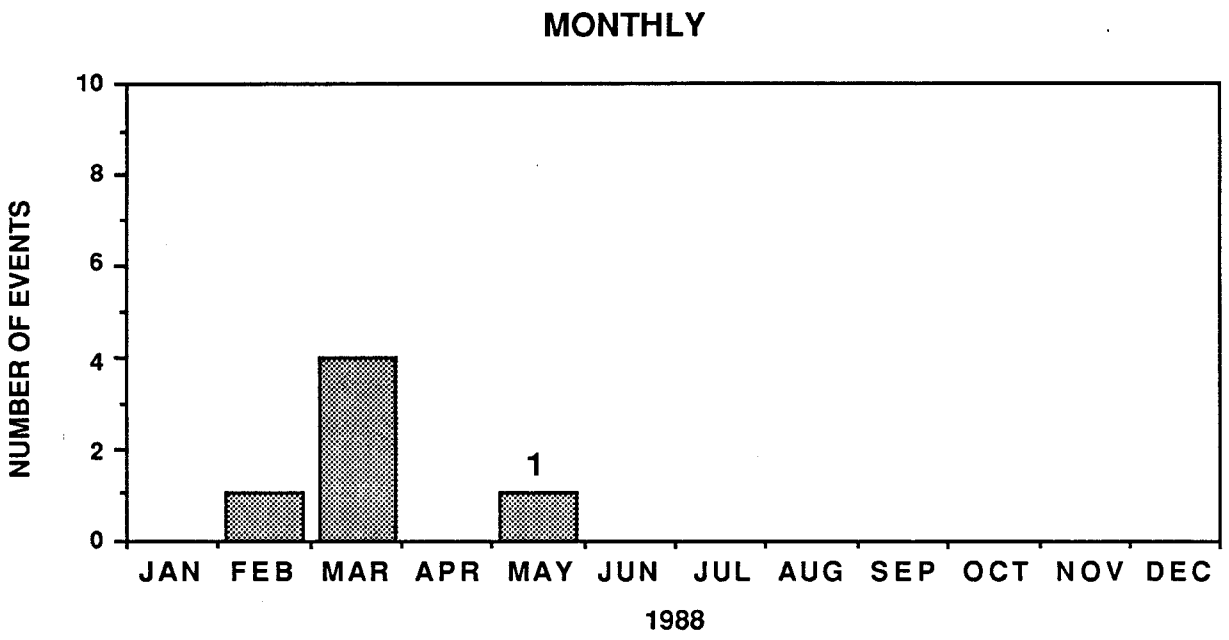
TO MONITOR THE PERCENTAGE OF TIME THAT THE REACTOR WAS NOT AVAILABLE FOR IRRADIATION TESTING DUE TO A FORCED SHUTDOWN. A FORCED SHUTDOWN IS ONE THAT WOULD NOT HAVE BEEN COMPLETED IN THE ABSENCE OF THE CONDITION FOR WHICH CORRECTIVE ACTION WAS TAKEN. TEST OUTAGES ARE NOT CONSIDERED FORCED SHUTDOWNS.

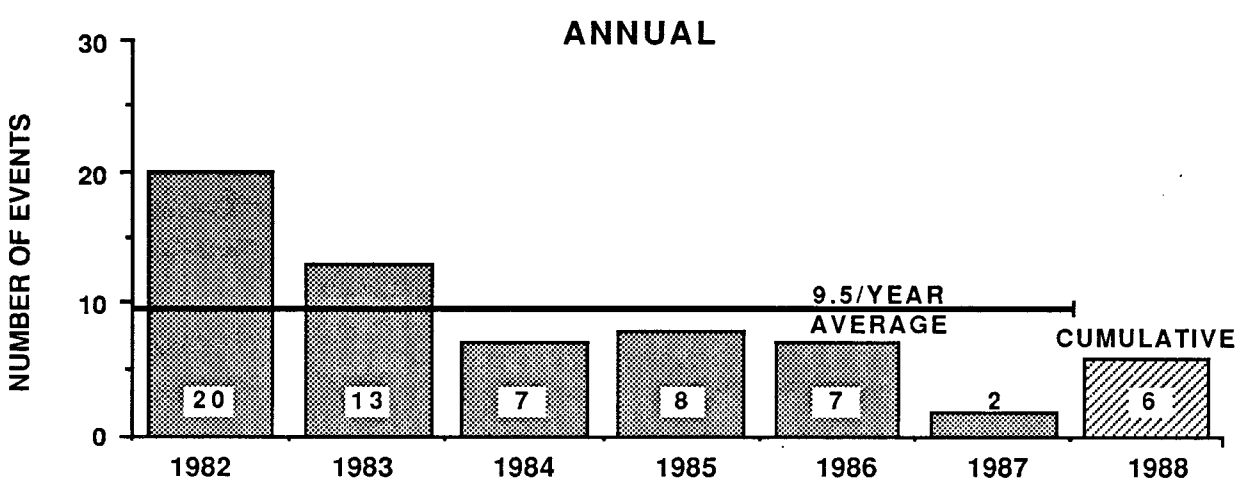
ASSESSMENT

THERE WERE NO FORCED OUTAGES DURING THE MONTH OF MAY.

MAY 1988	D. J. SWAIM	376-0604	FIGURE 3

UNUSUAL OCCURRENCE REPORTS





PURPOSE

TO MONITOR THE NUMBER OF UNUSUAL OCCURRENCE REPORTS (UOR). A UOR IS AN EVENT OUTSIDE NORMAL OPERATIONS THAT CAUSES OR RISKS SERIOUS INJURY TO PERSONNEL, SERIOUS THREAT TO THE ENVIRONMENT, OR HAS SIGNIFICANT EFFECT UPON SAFETY, RELIABILITY OR COST OF FFTF OR FFTF PROGRAMS.

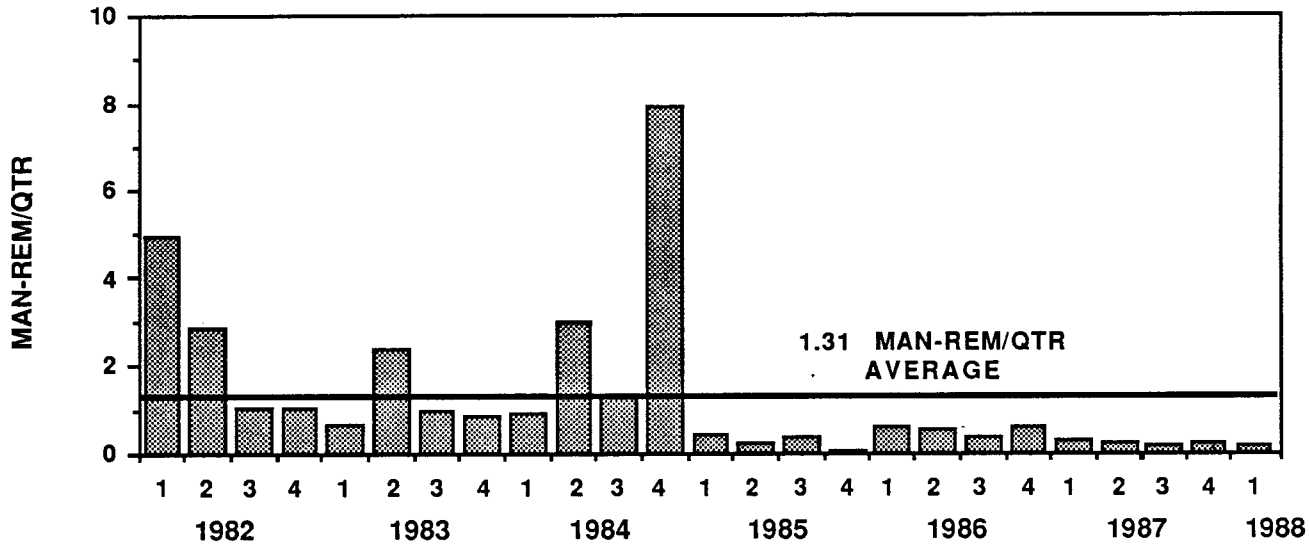
ASSESSMENT

THERE WAS ONE UNUSUAL OCCURRENCE REPORT FOR THE MONTH OF MAY. WHEN DE-ENERGIZING AN ELECTRICAL DISTRIBUTION PANEL, A CONTAINMENT ISOLATION SYSTEM BREAKER FAILED TO OPEN. FOLLOWING DISASSEMBLY OF THE BREAKER BY THE VENDOR, THE CAUSE WAS FOUND TO BE A LACK OF LUBRICATION. ALL BREAKERS OF THAT TYPE WERE PROPERLY LUBRICATED DURING THE S10B OUTAGE.

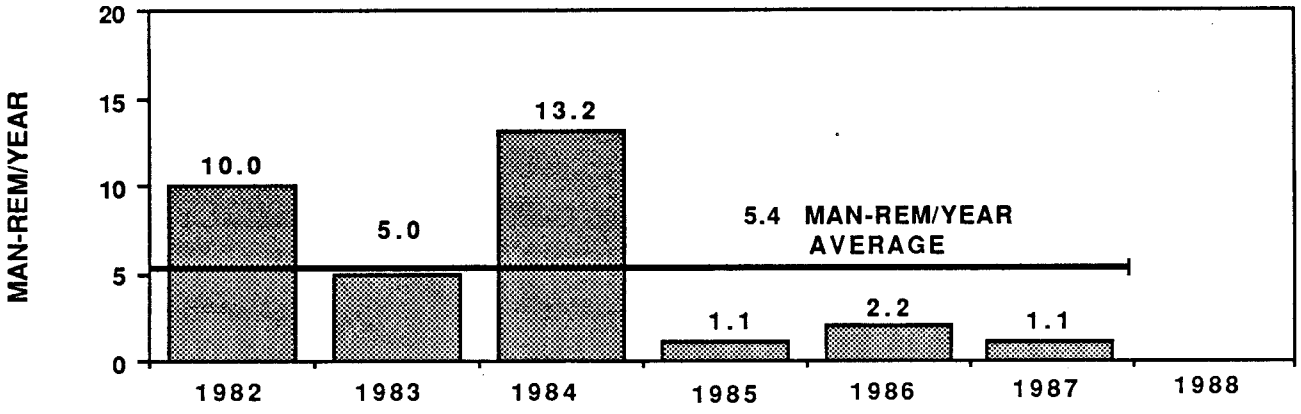
MAY 1988	D. J. SWAIM	376-0604	FIGURE 4

PERSONNEL RADIATION EXPOSURE

QUARTERLY MAN-REM EXPOSURE



ANNUAL MAN-REM EXPOSURE



PURPOSE

TO MONITOR THE QUARTERLY RADIATION EXPOSURE TO THE FFTF RADIATION WORKERS. DUE TO THE VERY LOW EXPOSURES, DATA IS COLLECTED AND REPORTED QUARTERLY.

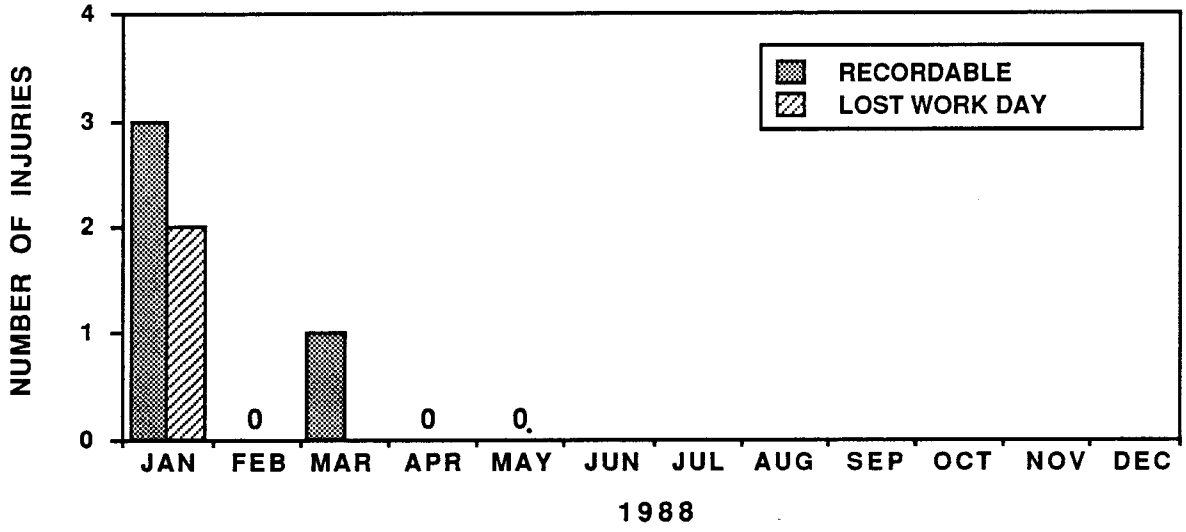
ASSESSMENT

PLANT PERSONNEL RADIATION EXPOSURE DURING THE FIRST QUARTER 1988 REMAINED LOW. THE HIGHEST INDIVIDUAL EXPOSURE WAS 20 MREM. WITH 198 RADIATION WORKERS AT FFTF THE AVERAGE EXPOSURE IS LESS THAN 2 MREMS PER WORKER PER QUARTER.

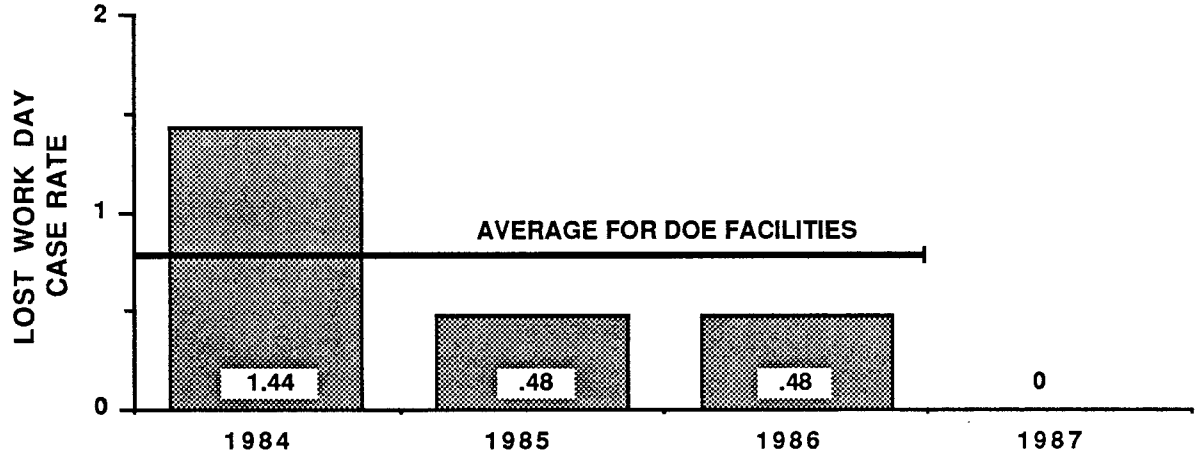
MAY 1988	P. R. PREVO	376-5667	FIGURE 5

INDUSTRIAL SAFETY STATISTICS

MONTHLY INJURIES



ANNUAL LOST WORK DAY CASE RATE



PURPOSE

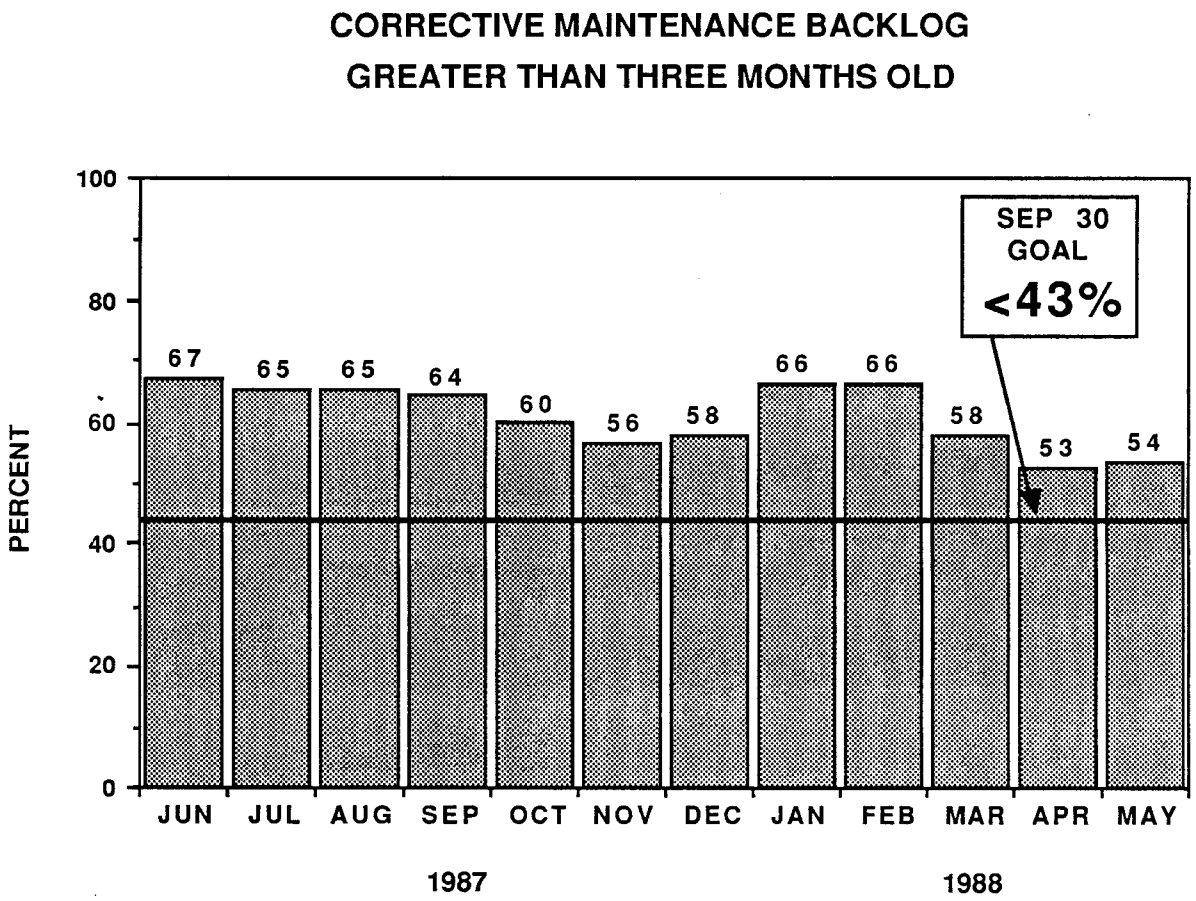
TO MONITOR THE NUMBER OF RECORDABLE AND LOST WORK DAY INJURIES. THE LOST WORK DAY INJURY INCIDENT RATE (THE NUMBER OF LOST TIME INJURIES PER 200,000 EMPLOYE-HOURS) IS ALSO MONITORED FOR PERMANENT SITE PERSONNEL.

ASSESSMENT

THERE WERE NO OSHA RECORDABLE INJURIES AT FFTF DURING THE MONTH OF MAY.

MAY 1988	H. N. BOWERS	376-3070	FIGURE 6

CORRECTIVE MAINTENANCE WORKOFF RATE



PURPOSE

TO MONITOR THE RATE OF COMPLETION OF CORRECTIVE MAINTENANCE ITEMS. THIS CHART INDICATES THE EFFICIENCY OF THE FFTF WORK CONTROL PROCESS AND THE STAFF'S ABILITY TO FOLLOW THROUGH ON THE DISPOSITION, SCHEDULING, FIELD WORK, AND CLOSE OUT OF CORRECTIVE MAINTENANCE.

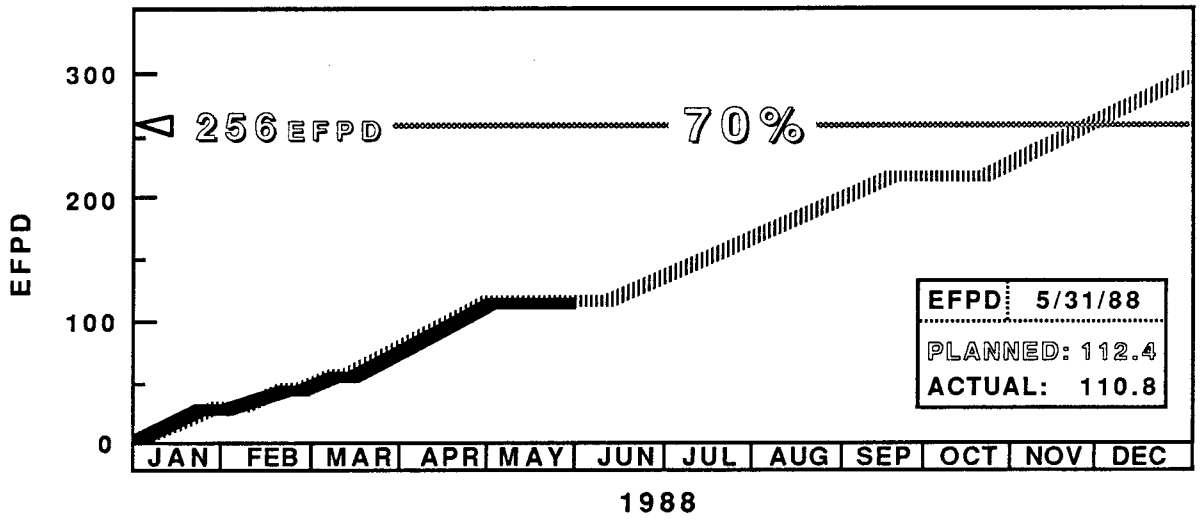
ASSESSMENT

THE BACKLOG GREATER THAN THREE MONTHS OLD INCREASED VERY SLIGHTLY DURING MAY TO 53.7%. THE S10B OUTAGE EFFORT IN MAY HAS NOT IMPACTED OUR PERCENTAGE OF CORRECTIVE MAINTENANCE GREATER THAN THREE MONTHS OLD. THIS IS ATYPICAL OF PAST OUTAGES WHERE THE STATISTIC HAS MEASURABLY INCREASED.

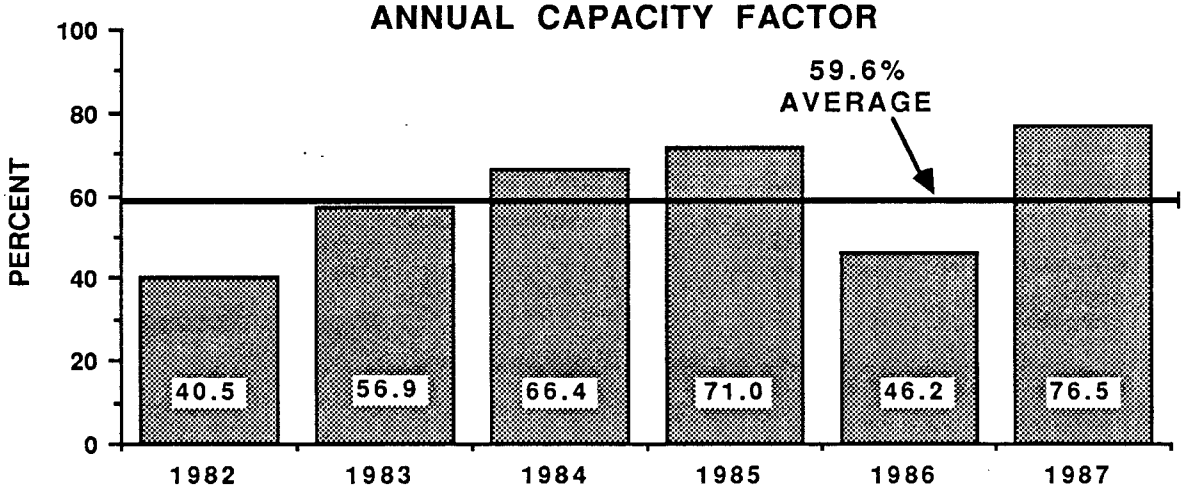
MAY 1988	R. D. REDEKOPP	376-9668	FIGURE 7

CAPACITY FACTOR

TARGET 70% ANNUAL CAPACITY FACTOR



ANNUAL CAPACITY FACTOR



PURPOSE

TO MONITOR THE PLANT'S ABILITY TO PERFORM AT RATED POWER. CAPACITY FACTOR IS DEFINED AS THE ACTUAL EFPD DIVIDED BY THE PRODUCT OF THE CALENDAR DAYS IN THE REPORTING PERIOD TIMES THE MAXIMUM DEPENDABLE CAPACITY (MDC) FOR THE PERIOD. THE MDC FOR CDE CYCLES IS 1.0. FOR CYCLES PRIOR TO SEPTEMBER 1986, THE MDC WAS 0.973.

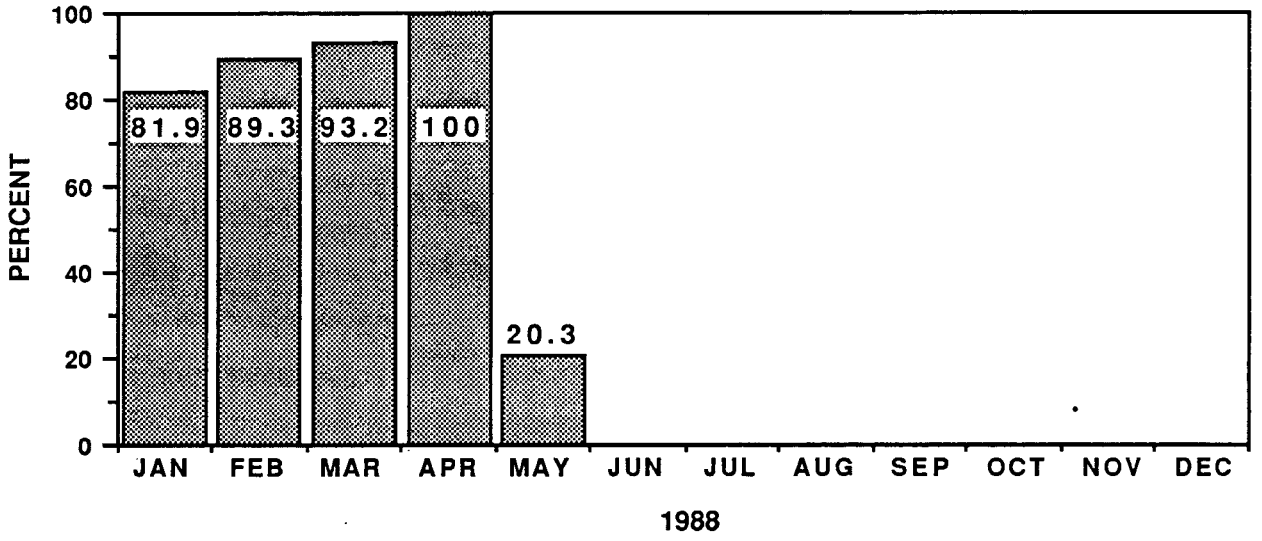
ASSESSMENT

THE CAPACITY FACTOR FOR THE MONTH OF MAY WAS 19.7%. THE REACTOR WAS SHUTDOWN ON MAY 7, 1988 FOR THE CYCLE S10B OUTAGE.

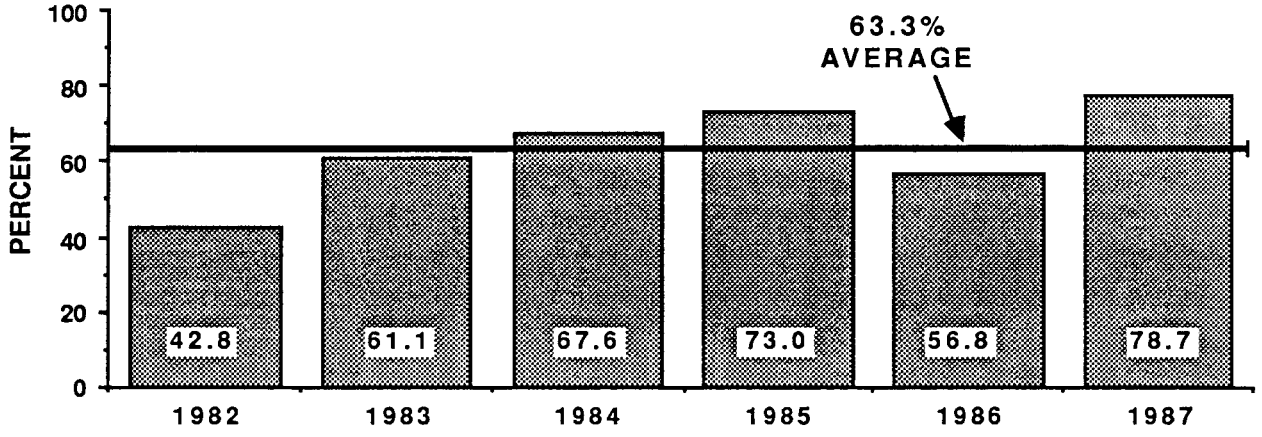
MAY 1988	D. J. SWAIM	376-0604	FIGURE 8

AVAILABILITY FACTOR

MONTHLY AVAILABILITY FACTOR



ANNUAL AVAILABILITY FACTOR



PURPOSE

TO MONITOR THE PLANT'S ABILITY TO CONDUCT IRRADIATION PROGRAM ACTIVITIES. AVAILABILITY FACTOR IS DEFINED AS THE PERCENT OF TIME THAT THE PLANT IS AT OR ABOVE CRITICAL.

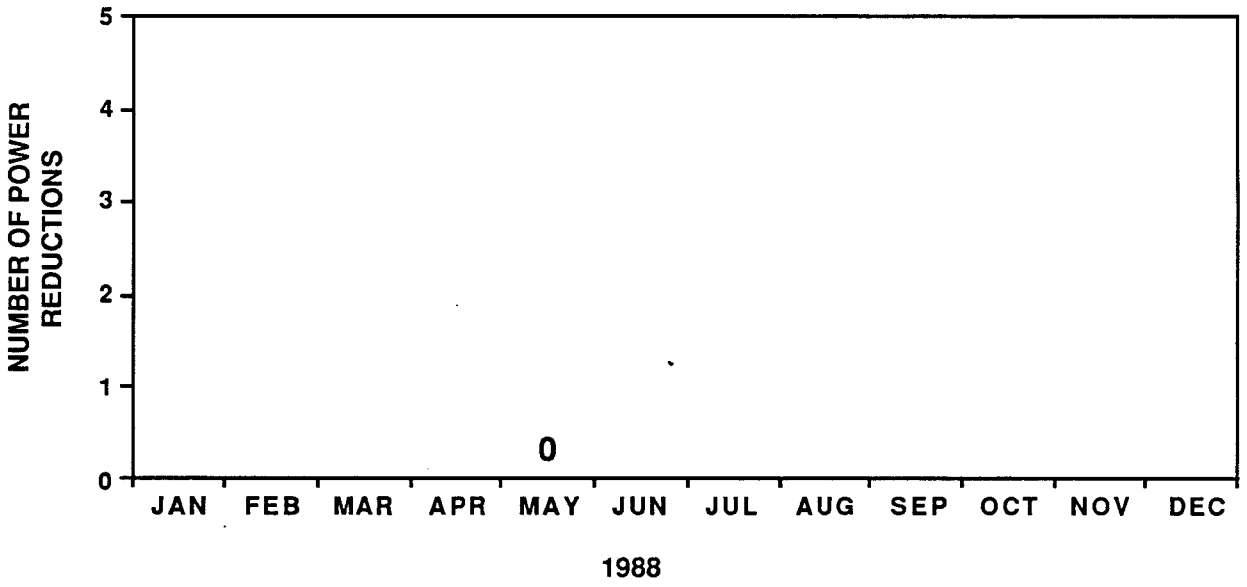
ASSESSMENT

THE MAY AVAILABILITY FACTOR WAS 20.3%. THE REACTOR WAS SHUTDOWN ON MAY 7, 1988 FOR THE CYCLE S10B OUTAGE.

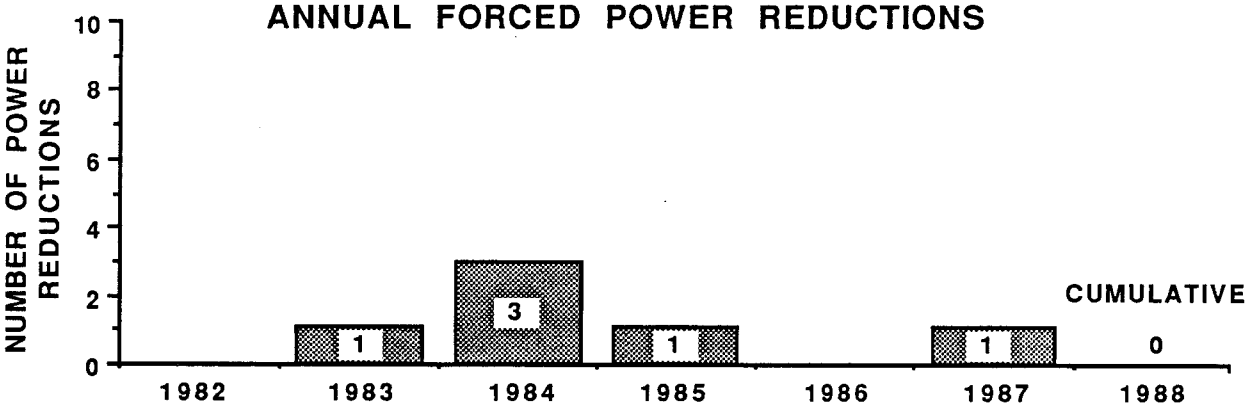
MAY 1988	D. J. SWAIM	376-0604	FIGURE 9

FORCED POWER REDUCTIONS

MONTHLY FORCED POWER REDUCTIONS



ANNUAL FORCED POWER REDUCTIONS



PURPOSE

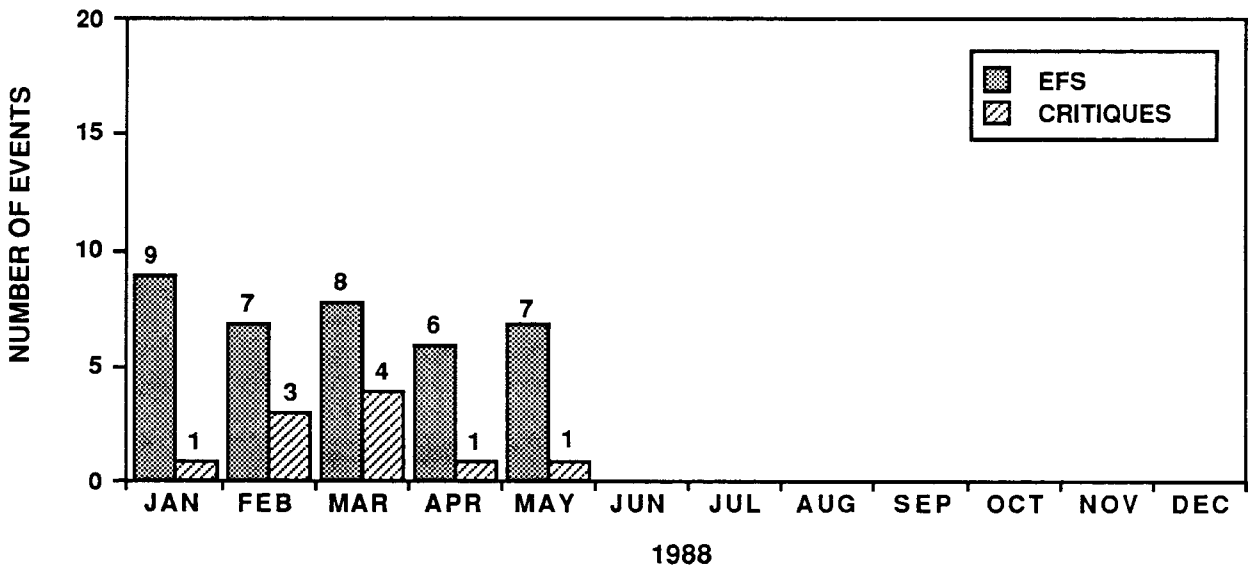
TO MONITOR THE NUMBER OF SIGNIFICANT FORCED POWER REDUCTIONS THAT DO NOT RESULT IN POWER REDUCTIONS BELOW 5% POWER. A SIGNIFICANT POWER REDUCTION IS DEFINED AS A POWER REDUCTION GREATER THAN 20% BELOW THE AVERAGE DAILY POWER LEVEL FOR THE PRECEDING 24 HOURS. A FORCED POWER REDUCTION IS ONE THAT WOULD NOT HAVE OCCURRED IN THE ABSENCE OF THE CONDITION FOR WHICH CORRECTIVE ACTION WAS TAKEN.

ASSESSMENT

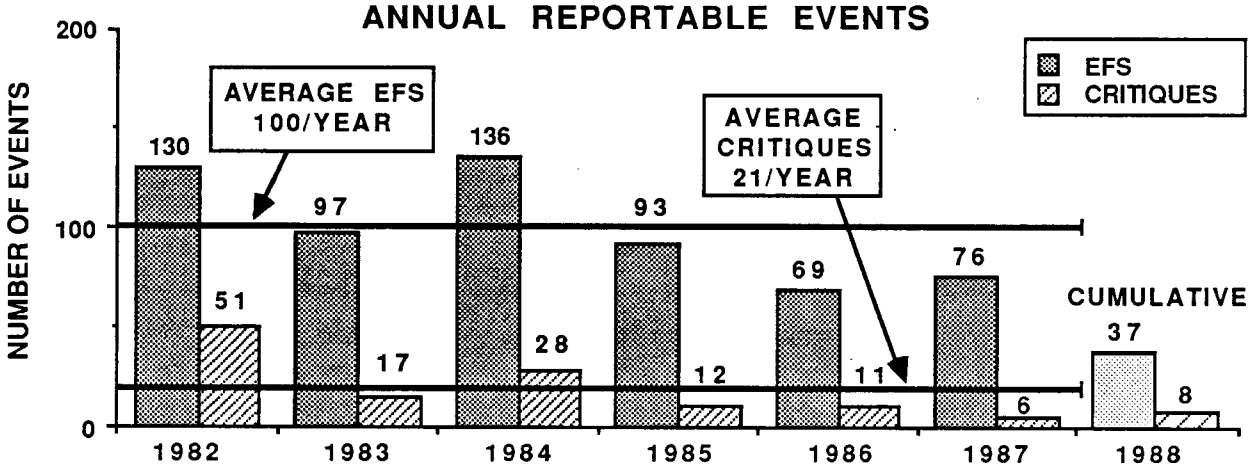
THERE WERE NO FORCED POWER REDUCTIONS DURING THE MONTH OF MAY.

REPORTABLE EVENTS

MONTHLY REPORTABLE EVENTS



ANNUAL REPORTABLE EVENTS



PURPOSE

TO MONITOR THE NUMBER OF EVENT FACT SHEETS (EFS) AND CRITIQUES. AN EVENT FACT SHEET RECORDS ANY SIGNIFICANT DEVIATION THAT MAY OR MAY NOT BE REPORTABLE AS A CRITIQUE OR UNUSUAL OCCURRENCE REPORT (UOR). A CRITIQUE IS AN EVALUATION OF THOSE EVENTS THAT DO NOT MEET THE CRITERIA FOR A UOR, BUT REQUIRE INVESTIGATION BEYOND THAT IDENTIFIED IN AN EFS.

ASSESSMENT

THERE WERE SEVEN EVENT FACT SHEETS AND ONE CRITIQUE WRITTEN THIS MONTH. THE CRITIQUE REPORTED AN EVENT DURING WHICH THE RATED CAPACITY OF A HOIST WAS EXCEEDED DURING SPECIAL EQUIPMENT LOAD TESTING.

MAY 1988	D. J. SWAIM	376-0604	FIGURE 11

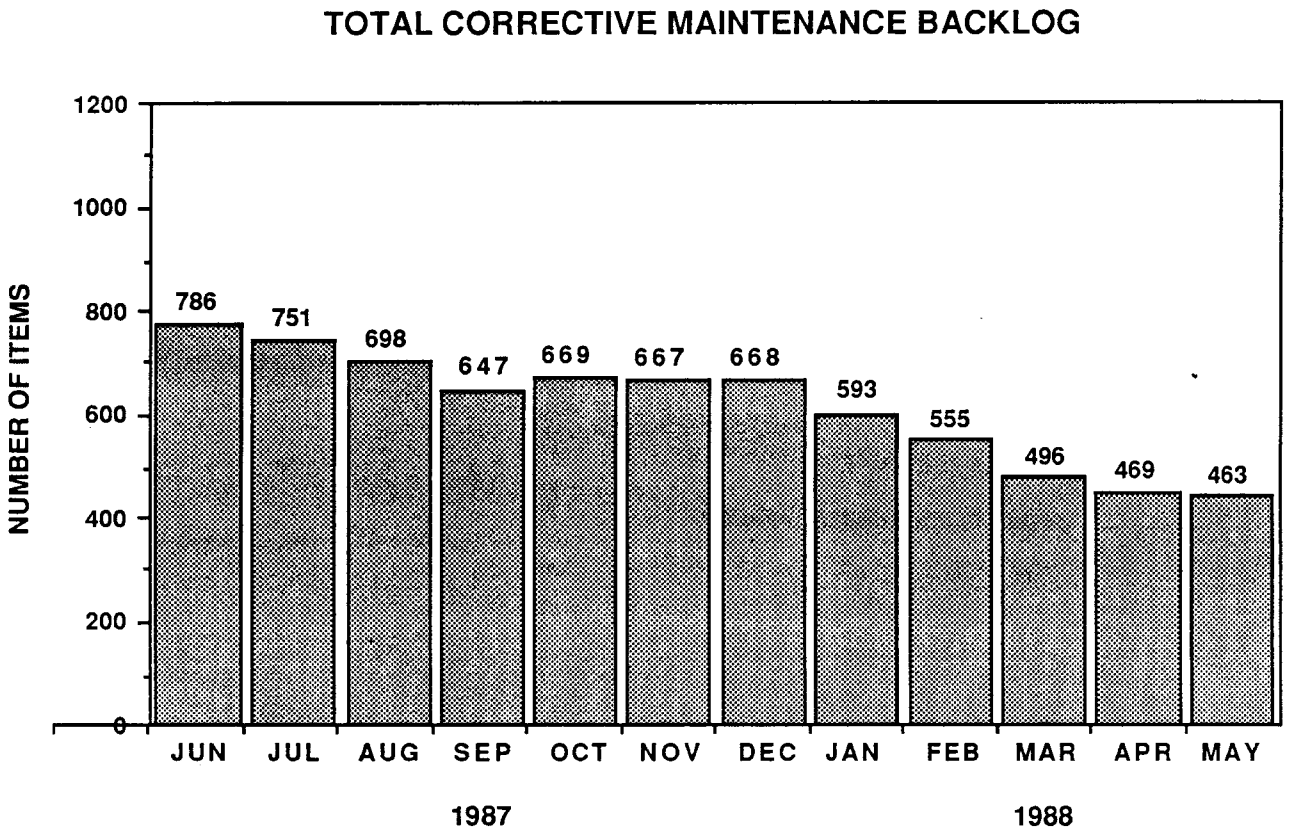
TBD

PURPOSE

ASSESSMENT

MAY 1988			FIGURE 12

CORRECTIVE MAINTENANCE BACKLOG



PURPOSE

TO MONITOR THE OVERALL MATERIAL CONDITION OF THE FFTF. CORRECTIVE MAINTENANCE IS DEFINED AS ACTIVITY THAT REPAIRS, RESTORES, OR MODIFIES PLANT EQUIPMENT TO RESTORE IT TO THE INTENDED DESIGN CONDITION OR FUNCTION.

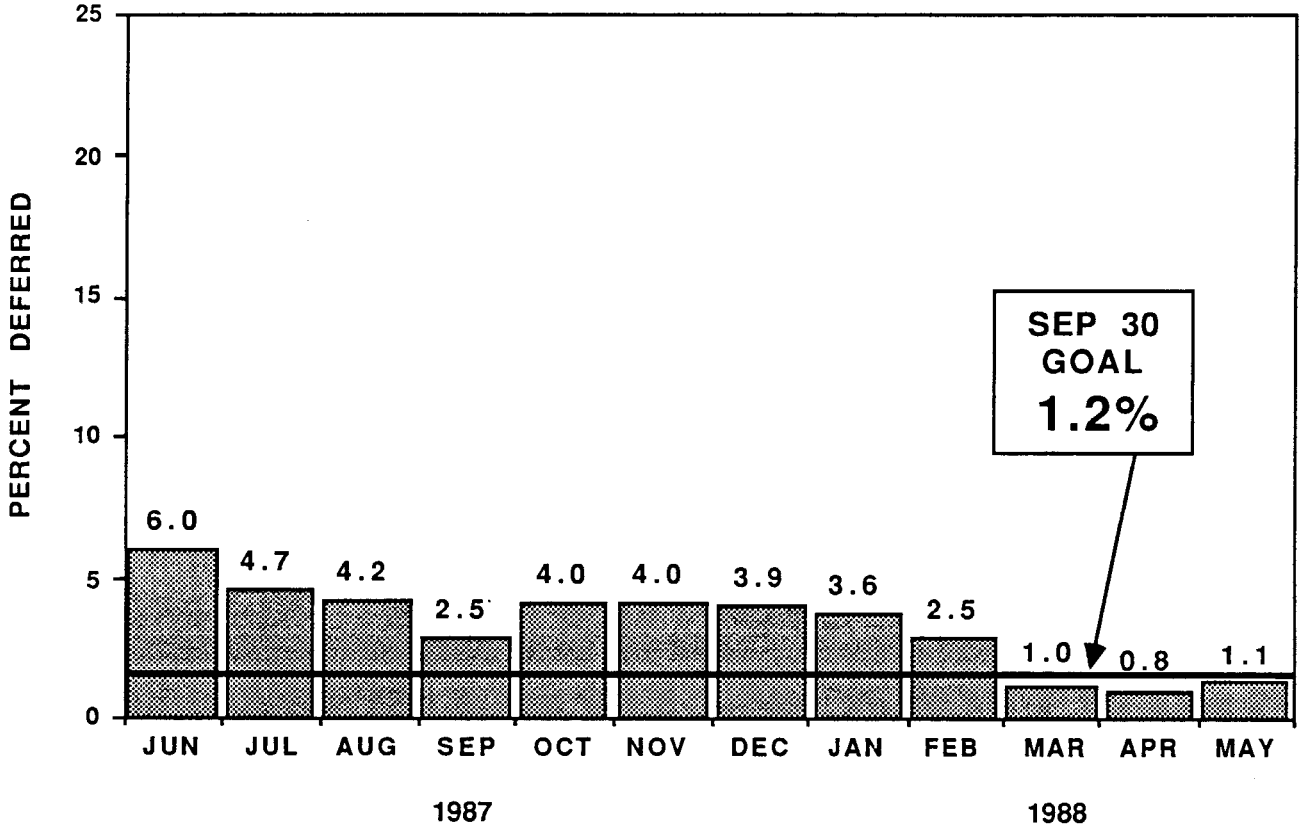
ASSESSMENT

THE TOTAL CORRECTIVE MAINTENANCE BACKLOG DECREASED TO 463 DURING MAY. THE S10B OUTAGE EFFORT DURING MAY DID NOT CAUSE THE RISE IN THE BACKLOG TOTAL AS SEEN IN THE PAST.

MAY 1988	R. D. REDEKOPP	376-9668	FIGURE 13

PROTECTIVE MAINTENANCE PERFORMANCE

PROTECTIVE MAINTENANCE ITEMS DEFERRED



PURPOSE

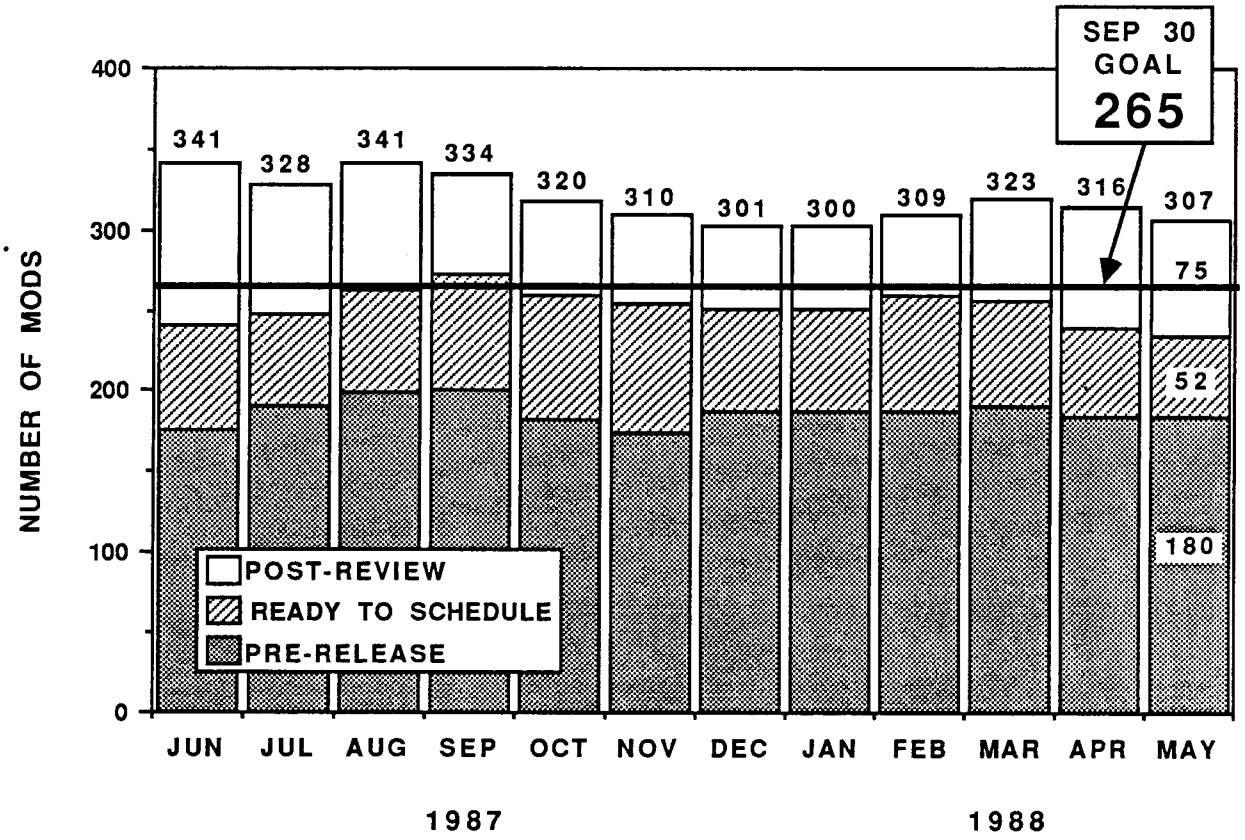
TO MONITOR THE NUMBER OF PROTECTIVE MAINTENANCE (PMP AND ICR) ITEMS THAT HAVE BEEN DEFERRED. IT ILLUSTRATES THE ORGANIZATION'S ABILITY TO SCHEDULE AND COMPLETE ROUTINE MAINTENANCE.

ASSESSMENT

THE PROTECTIVE MAINTENANCE BACKLOG WAS REDUCED TO 0.7% DURING THE FIRST WEEK OF MAY, BUT SPIKED UPWARDS DUE TO THE S10B OUTAGE ACTIVITIES WHICH REQUIRED MODE 3 AND 4 TO WORK. CURRENT BACKLOG IS AT 1.1%. THE SEPTEMBER 30 GOAL OF <1.2% IS STILL ON TRACK FOR COMPLETION.

MAY 1988	R. D. REDEKOPP	376-9668	FIGURE 14

MODIFICATION STATUS



PURPOSE

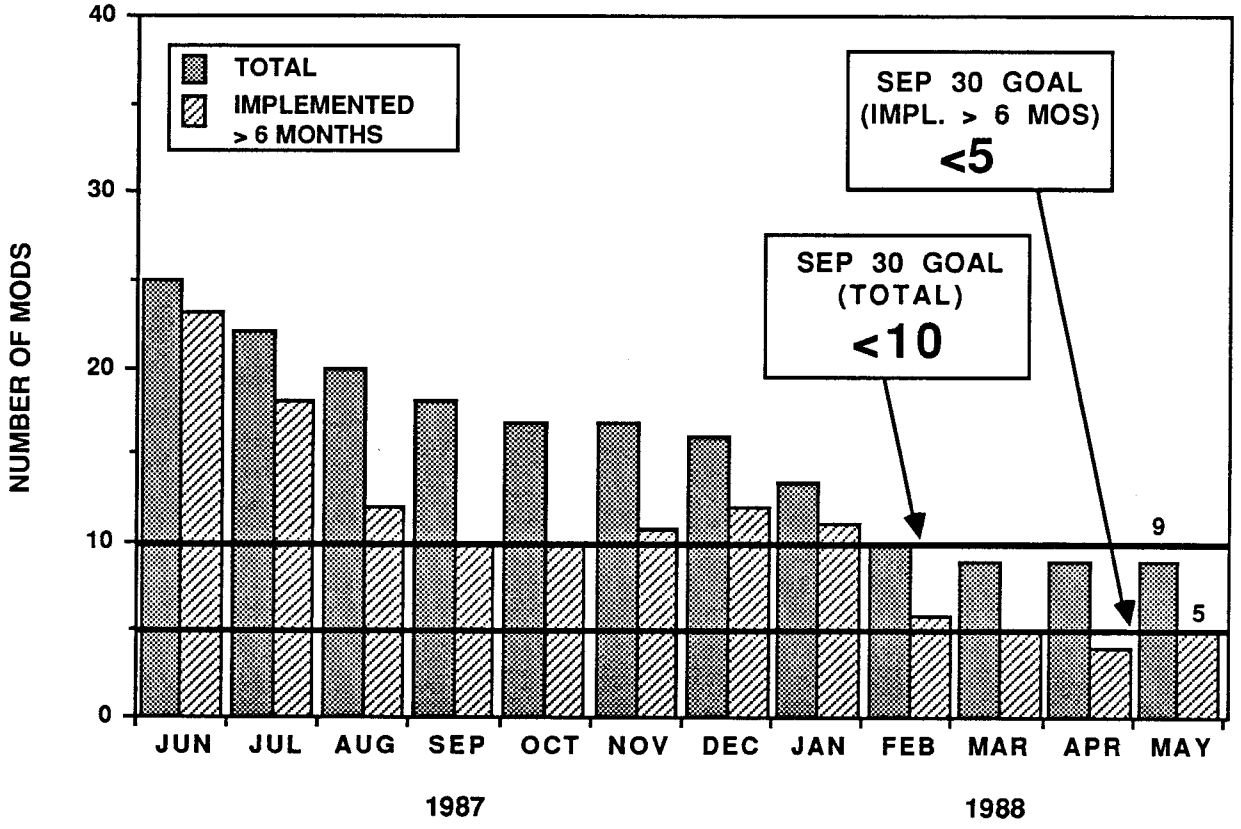
TO MONITOR THE NUMBER OF PLANT MODIFICATIONS THAT ARE ACTIVE IN THE PLANT TRACKING SYSTEM (PTS). IT ILLUSTRATES THE ORGANIZATION'S ABILITY TO DESIGN AND IMPLEMENT CHANGES IN THE PLANT.

ASSESSMENT

THE TOTAL NUMBER OF OUTSTANDING MODIFICATIONS DECREASED TO 307 DURING MAY. A STRONGER EFFORT IS NEEDED ON THIS ELUSIVE CHALLENGE TO ATTAIN THE SEPTEMBER 30 GOAL.

MAY 1988	R. D. REDEKOPP	376-9668	FIGURE 15

TEMPORARY MODIFICATION STATUS



PURPOSE

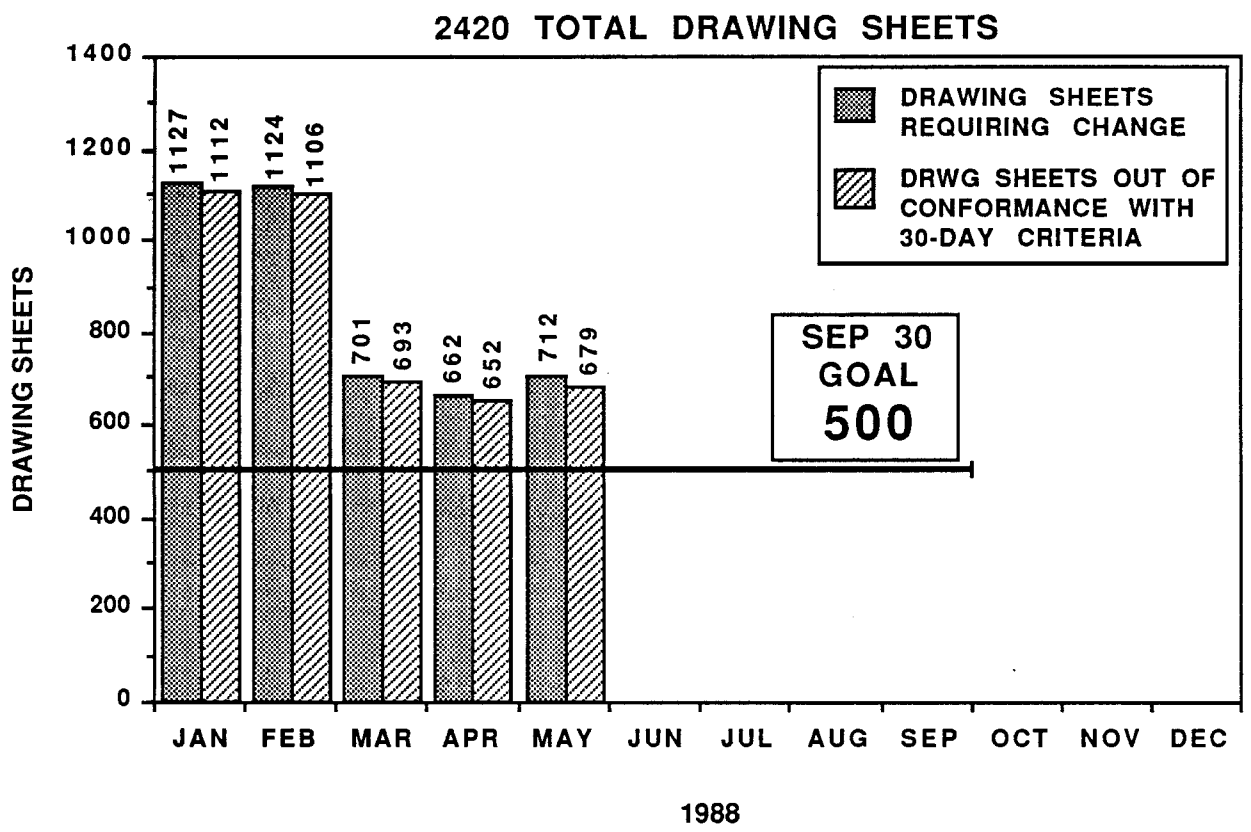
TO MONITOR THE NUMBER OF MODIFICATIONS THAT ARE NOT PERMANENT. IT ALSO MONITORS THE ORGANIZATION'S ABILITY TO COMPLETE THE DOCUMENTATION AND PROVIDE PERMANENT CHANGES TO THE FFTF.

ASSESSMENT

THE TOTAL NUMBER OF TEMPORARY MODIFICATIONS REMAINED CONSTANT AT NINE DURING MAY. THE TEMPORARY PLANT MODIFICATIONS GREATER THAN SIX MONTHS OLD INCREASED BY ONE DOCUMENT TO A TOTAL OF FIVE BUT REMAINED WITHIN THE GOAL.

MAY 1988	R. D. REDEKOPP	376-9668	FIGURE 16

ESSENTIAL DRAWING STATUS



PURPOSE

TO MONITOR THE TOTAL NUMBER OF ESSENTIAL DRAWING SHEETS REQUIRING THE INCORPORATION OF ENGINEERING CHANGE NOTICES (ECN'S) THAT MAKE UP THE CONTROL ROOM CRITICAL FILE. ALSO TO MONITOR THE ESSENTIAL DRAWING SHEET CHANGES THAT HAVE NOT BEEN REVISED WITHIN THIRTY WORKING DAYS AFTER COMPLETION OF THE FIELD WORK PACKAGE.

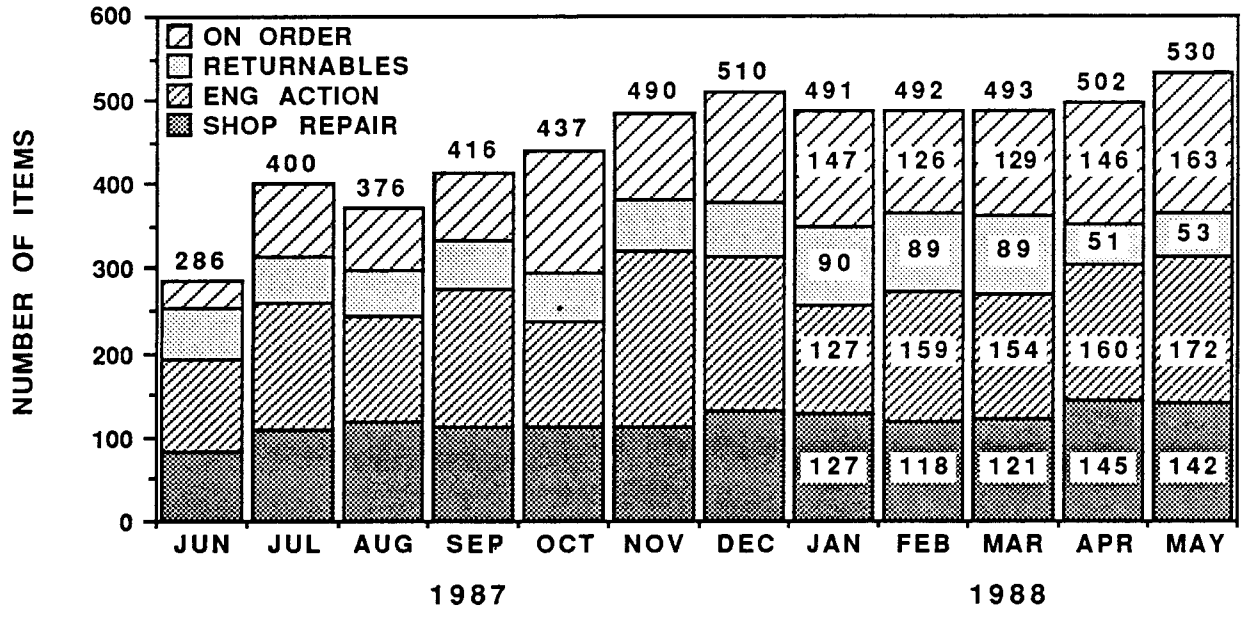
ASSESSMENT

ALTHOUGH THE NUMBER OF ESSENTIAL DRAWINGS REQUIRING ENGINEERING CHANGES INCREASED THIS MONTH, THE TREND TO REDUCE THIS BACKLOG WILL CONTINUE ACCORDING TO THE FY88 FUNDING PLAN. THE TEMPORARY INCREASE RESULTED FROM ADDING 63 MASF ESSENTIAL DRAWINGS HAVING OUTSTANDING CHANGES AND FROM DIVERTING DRAFTING RESOURCES TO UPDATE 88 SEISMIC DRAWINGS TO SATISFY AN AUDIT ACTION. ASSIGNING THREE DRAFTPERSONS FOR THE REMAINDER OF FY88 WILL MEET THE GOAL OF LESS THAN 500 DRAWINGS.

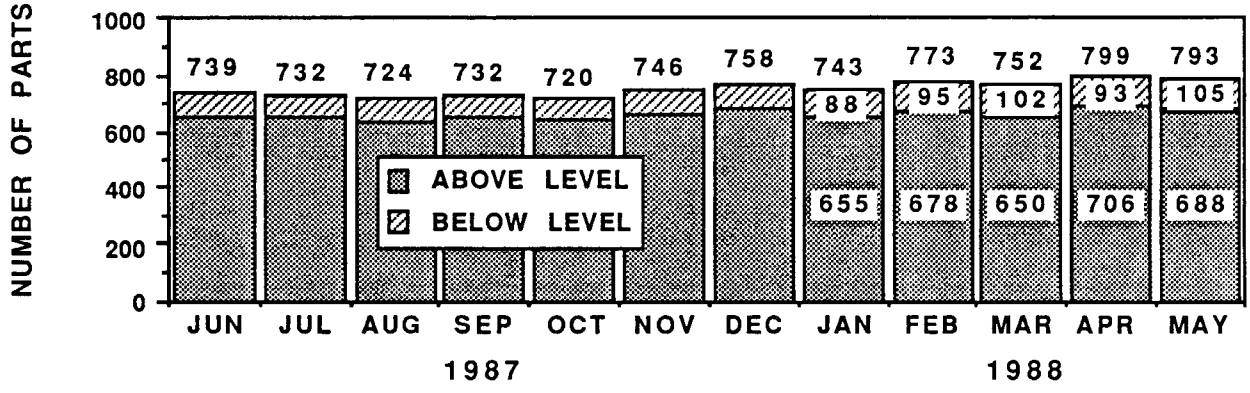
MAY 1988	M. L. GRYGIEL	376-0400	FIGURE 17

REPAIR PARTS AVAILABILITY

LINE ITEMS BELOW MINIMUM INVENTORY



REPAIR PARTS AWAITING REPAIR



PURPOSE

TO MONITOR THE SPARE PARTS AVAILABILITY BY SHOWING THE NUMBER OF LINE ITEMS BELOW THE MINIMUM NUMBER OF PARTS SPECIFIED BY THAT ITEM AND THE NUMBER OF THOSE PARTS WHICH ARE IN THE SHOP AWAITING REPAIR. A BREAKDOWN OF ACTIONS REQUIRED TO RETURN THE PARTS TO INVENTORY IS ALSO INDICATED.

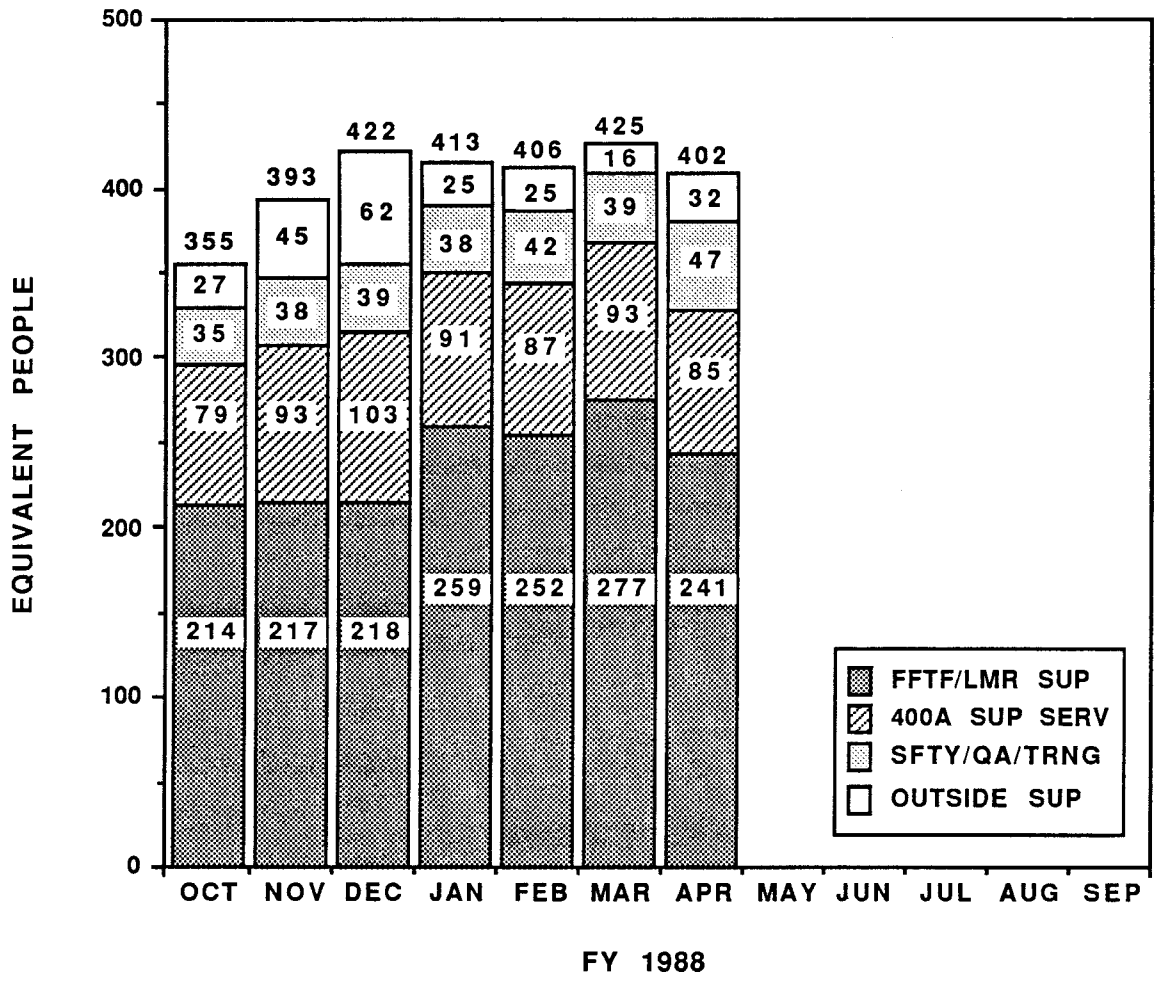
ASSESSMENT

THE NUMBER OF SPARE PARTS AT OR BELOW MINIMUM INVENTORY IS SHOWING A NEGATIVE TREND. LACK OF SPARES HAS NOT YET CAUSED CRITICAL PATH DELAYS.

THE NUMBER OF PARTS AWAITING REPAIR REMAINS ESSENTIALLY CONSTANT. THE S10B OUTAGE WORKLOAD HAS NOT HAD AN EFFECT ON THE TOTAL.

MAY 1988	J. E. TRUAX	376-1805	FIGURE 18

STAFFING STATUS



FY 1988

PURPOSE

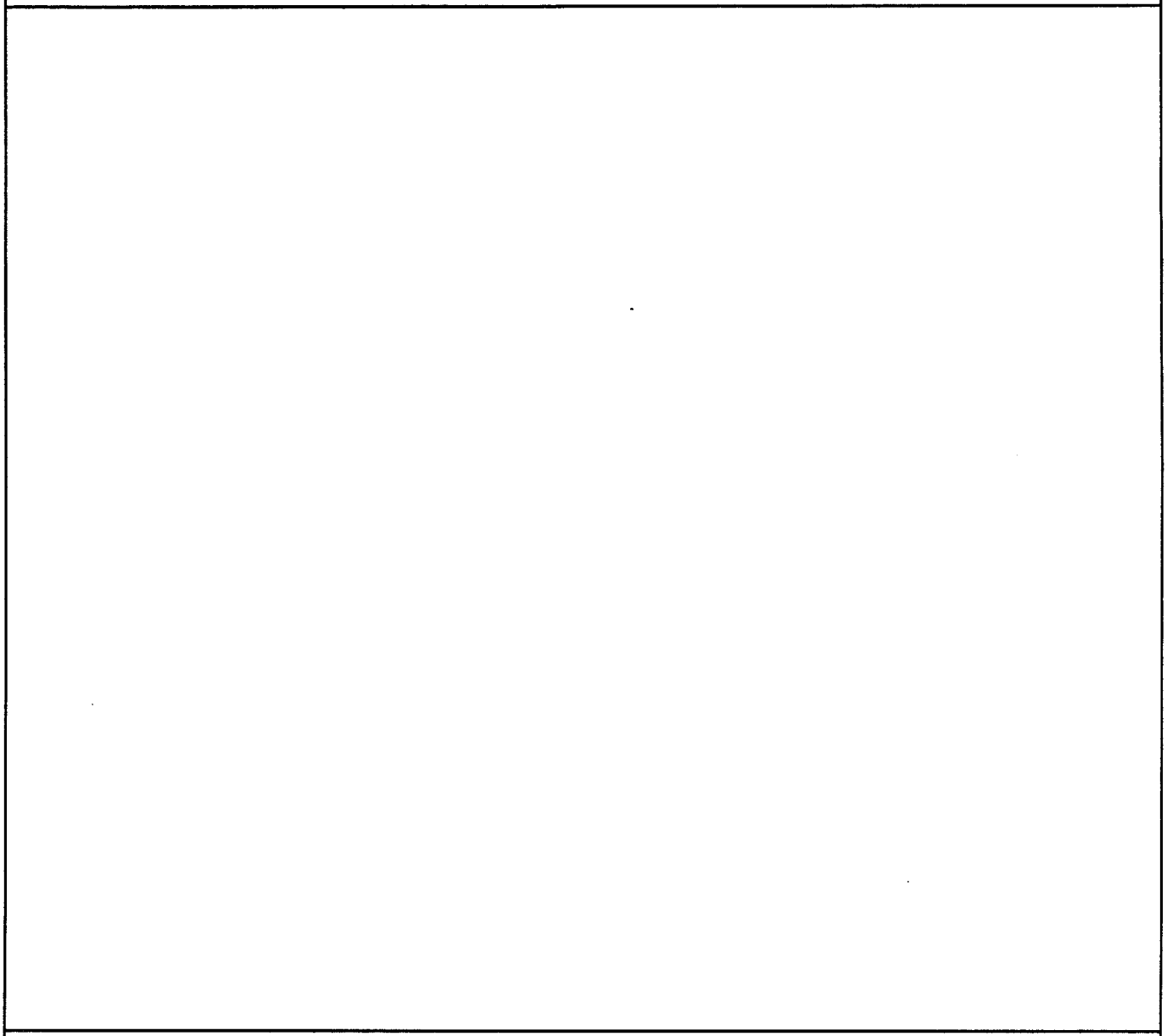
TO MONITOR THE NUMBER OF EQUIVALENT PEOPLE AND TO FOCUS ON KEY POSITIONS THAT ARE CURRENTLY LESS THAN 85% OF AUTHORIZED LEVELS. THE NUMBER OF EQUIVALENT PEOPLE IS OBTAINED BY DIVIDING THE NUMBER OF REGULAR WORK HOURS CHARGED BY THE NUMBER OF PRODUCTIVE WORK HOURS AVAILABLE IN THE MONTH.

ASSESSMENT

THERE ARE NO ORGANIZATIONS THAT ARE CURRENTLY STAFFED LESS THAN 85% OF AUTHORIZED LEVELS. THIS INDICATOR IS UNDER REVIEW FOR REVISION.

MAY 1988	W. M. RITTER	376-0758	FIGURE 19

TBD

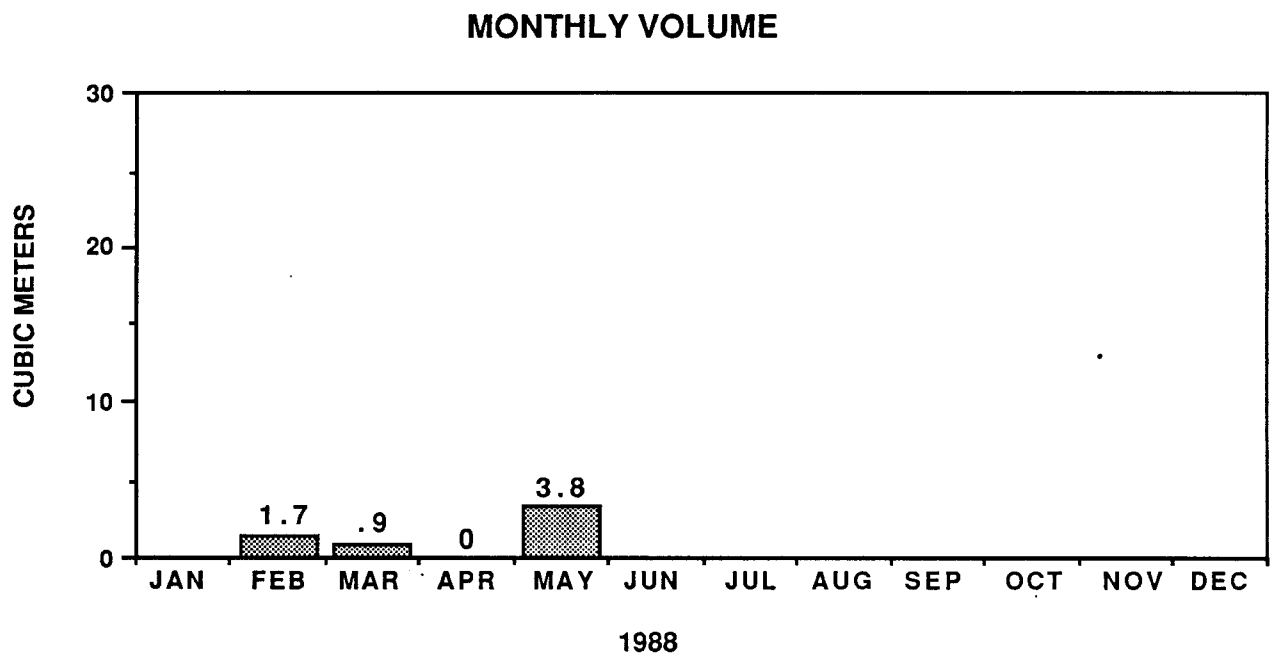


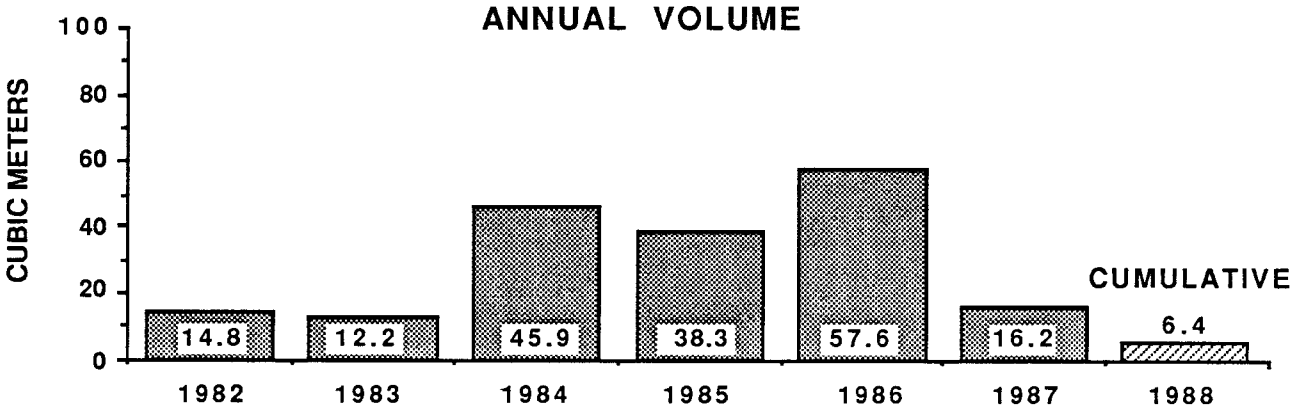
PURPOSE

ASSESSMENT

MAY 1988			FIGURE 20

SOLID RADIOACTIVE WASTE





PURPOSE

TO MONITOR THE VOLUME OF SOLID RADIOACTIVE WASTE THAT IS SHIPPED OFF THE FFTF SITE. SOLID RADIOACTIVE WASTE GENERATED FROM THE FFTF, IEM CELL, AND MASF ARE INCLUDED IN THE TOTALS.

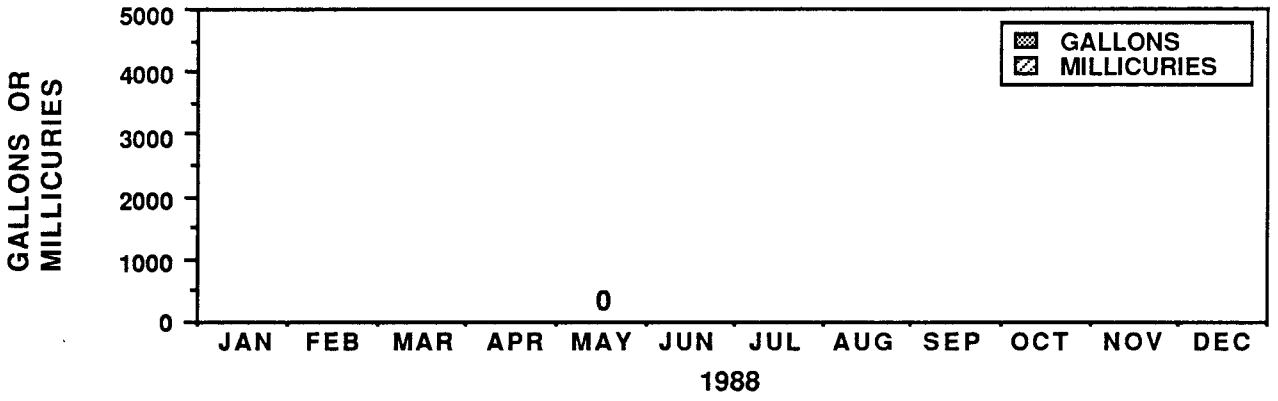
ASSESSMENT

THERE WERE TWO SHIPMENTS OF SOLID RADIOACTIVE WASTE DURING THE MONTH OF MAY. THE SHIPMENTS CONSISTED OF EIGHT HEPA FILTERS AND FIVE COMPACTED DRUMS.

MAY 1988	D. J. SWAIM	376-0604	FIGURE 21

LIQUID RADIOACTIVE WASTE

MONTHLY



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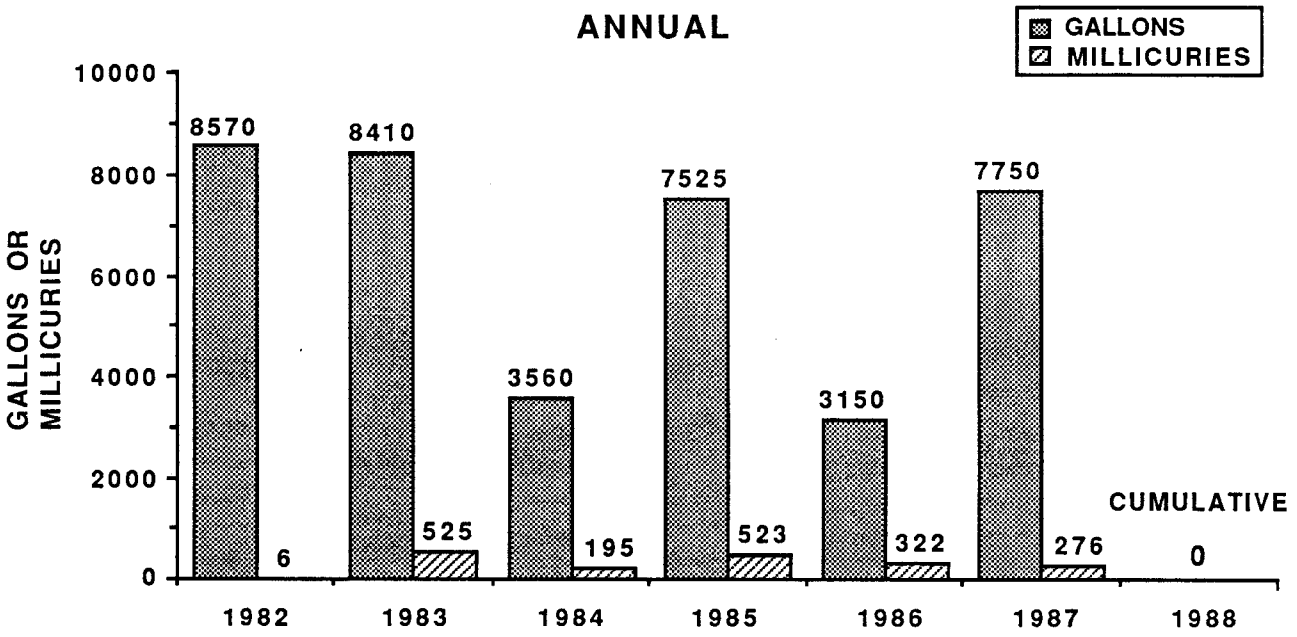


PURPOSE

TO MONITOR THE VOLUME OF LIQUID RADIOACTIVE WASTE SHIPPED FROM STORAGE TANK T-103 TO THE RAILROAD TANK CAR FOR SHIPMENT OFF THE FFTF SITE.

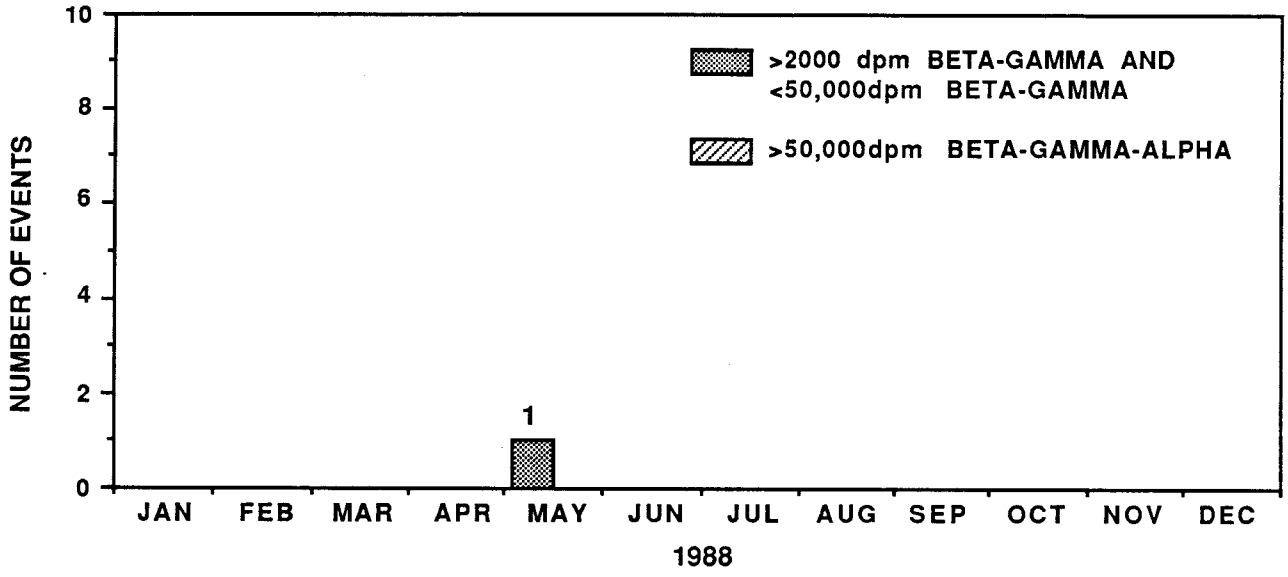
ASSESSMENT

THERE WERE NO SHIPMENTS OF LIQUID RADIOACTIVE WASTE DURING THE MONTH OF MAY.

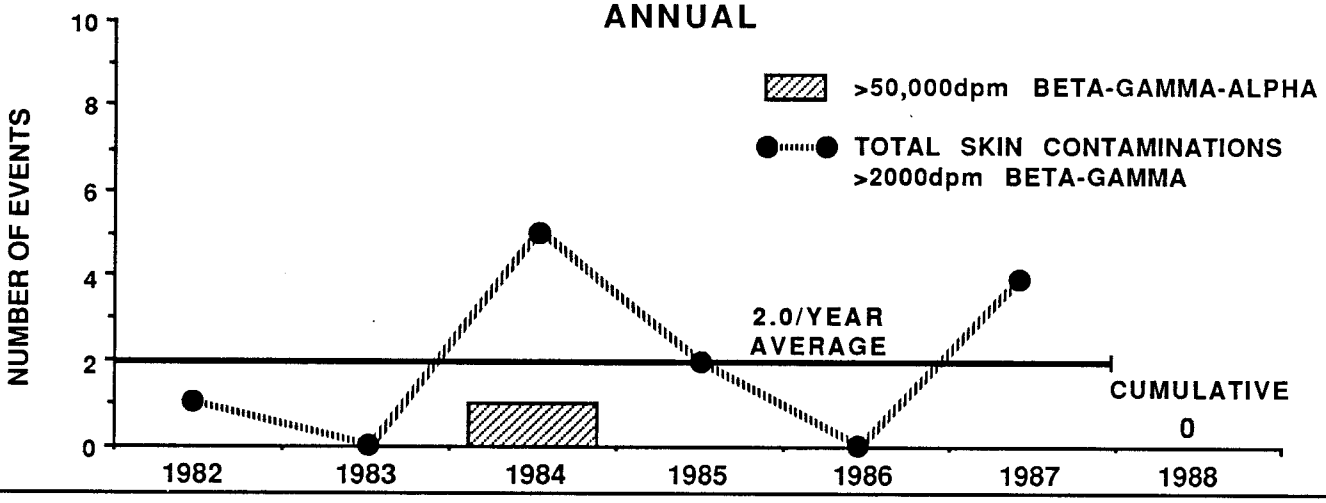
MAY 1988	D. J. SWAIM	376-0604	FIGURE 22

SKIN CONTAMINATIONS

MONTHLY



ANNUAL



PURPOSE

TO MONITOR THE NUMBER OF RECORDABLE AND SIGNIFICANT (REPORTABLE) SKIN CONTAMINATION EVENTS. A RECORDABLE SKIN CONTAMINATION EVENT IS ANY EVENT WITH DETECTABLE CONTAMINATION LEVELS ABOVE 2000 dpm/ PROBE AREA BETA-GAMMA AND/OR 500 dpm/PROBE AREA ALPHA (NOT TO INCLUDE RADON/THORON ISOTOPES). A SIGNIFICANT (REPORTABLE) SKIN CONTAMINATION EVENT IS ANY EVENT WITH DETECTABLE CONTAMINATION LEVELS ABOVE 50,000 dpm/PROBE AREA BETA-GAMMA-ALPHA.

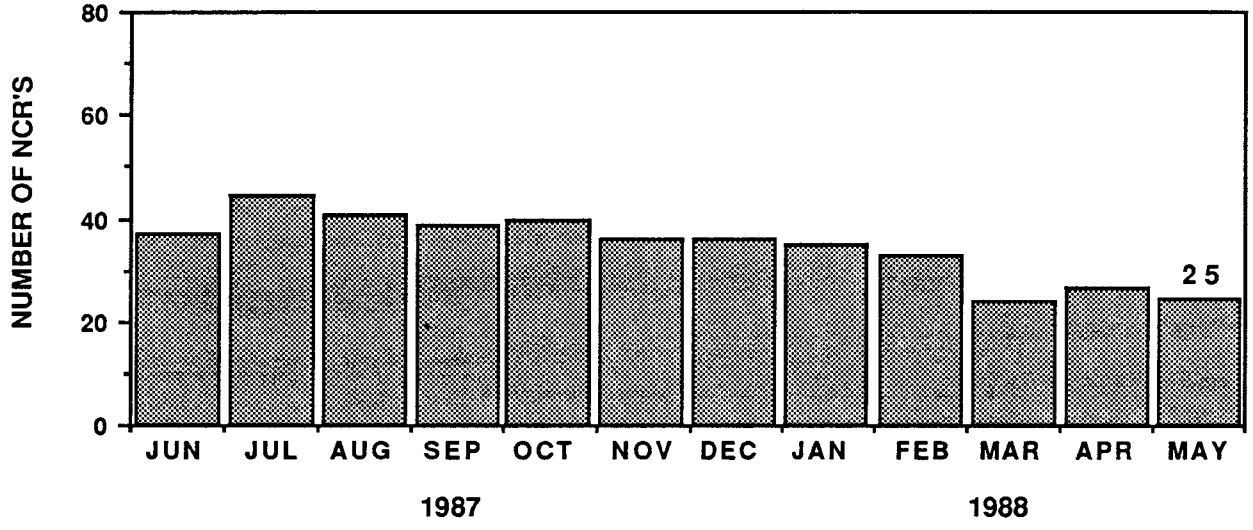
ASSESSMENT

THERE WAS ONE SKIN CONTAMINATION EVENT IN THE 400 AREA DURING THE MONTH OF APRIL. THE SKIN CONTAMINATION EVENT OCCURRED ON MAY 5 AT THE MASF/CERS. CONTAMINATED "CLEAN" SPECIAL WORK PROCEDURE (SWP) CLOTHING WAS THE APPARENT CAUSE.

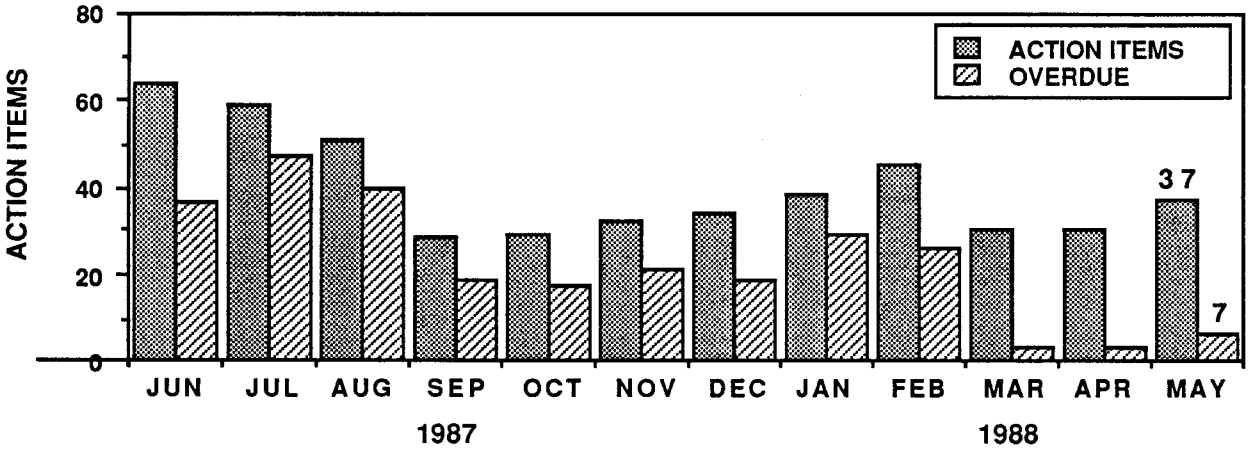
MAY 1988	R. L. WATTS	376-3111	FIGURE 23

SAFETY/QUALITY COMMITMENTS

NON CONFORMANCE REPORTS



ACTION ITEMS



PURPOSE

TO MONITOR THE NUMBER OF NONCONFORMANCE REPORTS (NCR) AND ACTION ITEMS RESULTING FROM REPORTABLE EVENTS, CRITIQUES, AND UOR'S. THE NUMBER OF OVERDUE ACTION ITEMS IS ALSO MONITORED TO MEASURE RESPONSIVENESS TO COMPLETING IDENTIFIED ACTION ITEMS.

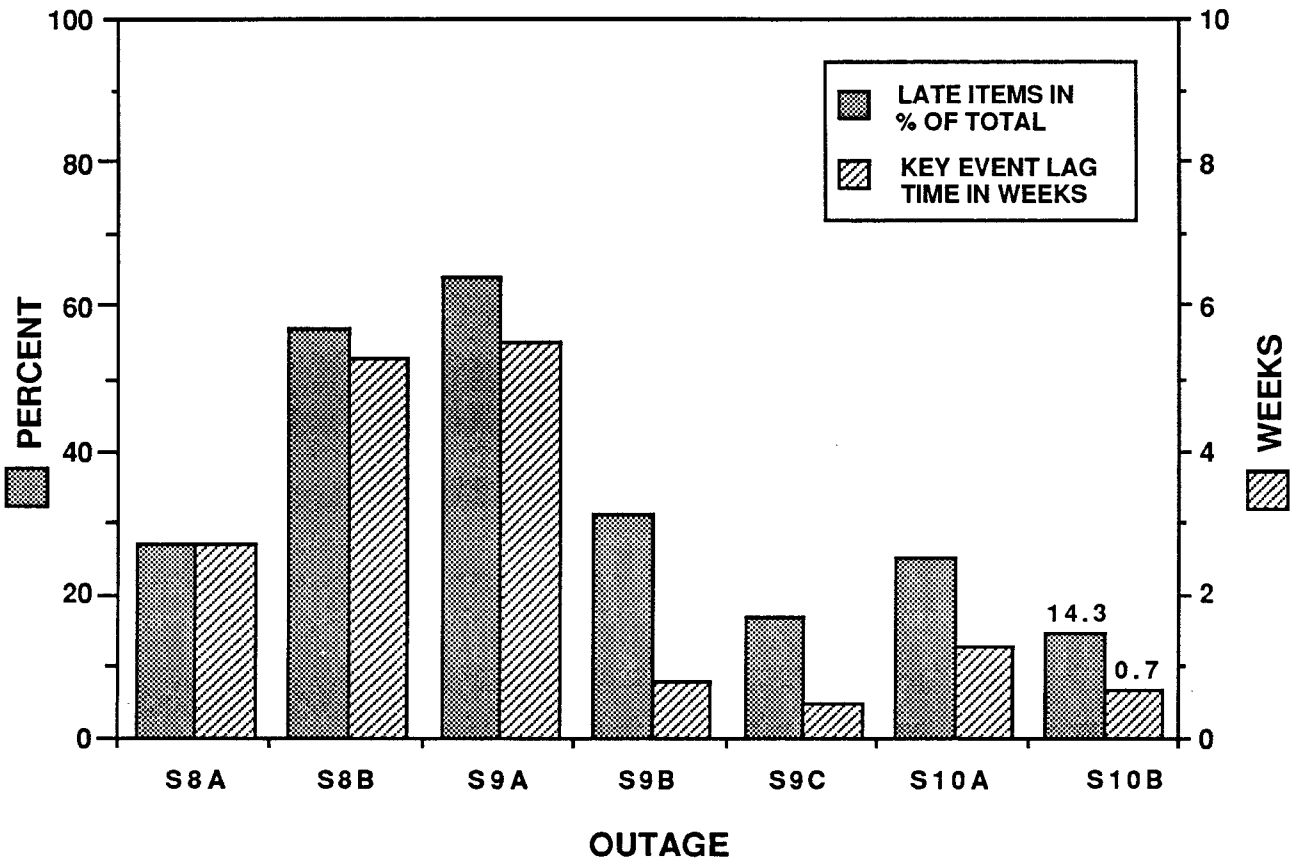
ASSESSMENT

THE TOTAL NUMBER OF OPEN NCR'S HAS DECREASED TO 25.

THE TOTAL NUMBER OF OPEN ACTION ITEMS AS WELL AS OVERDUE ACTION ITEMS HAS INCREASED. THE S10B OUTAGE AND OUTAGE PREPARATIONS HAVE DIVERTED RESOURCES NECESSARY TO COMPLETE THE ITEMS.

MAY 1988	J. E. TRUAX	376-1805	FIGURE 24

OUTAGE PLANNING PERFORMANCE



PURPOSE

TO MONITOR THE PLANT STAFF'S ABILITY TO MEET OUTAGE PLANNING ACTION ITEM DUE DATES. BOTH PERCENTAGE OF ITEMS THAT ARE LATE AND KEY EVENT LAG TIME ARE PLOTTED. THESE PARAMETERS HAVE A DIRECT IMPACT ON MINIMIZING THE LENGTH OF PLANNED OUTAGES.

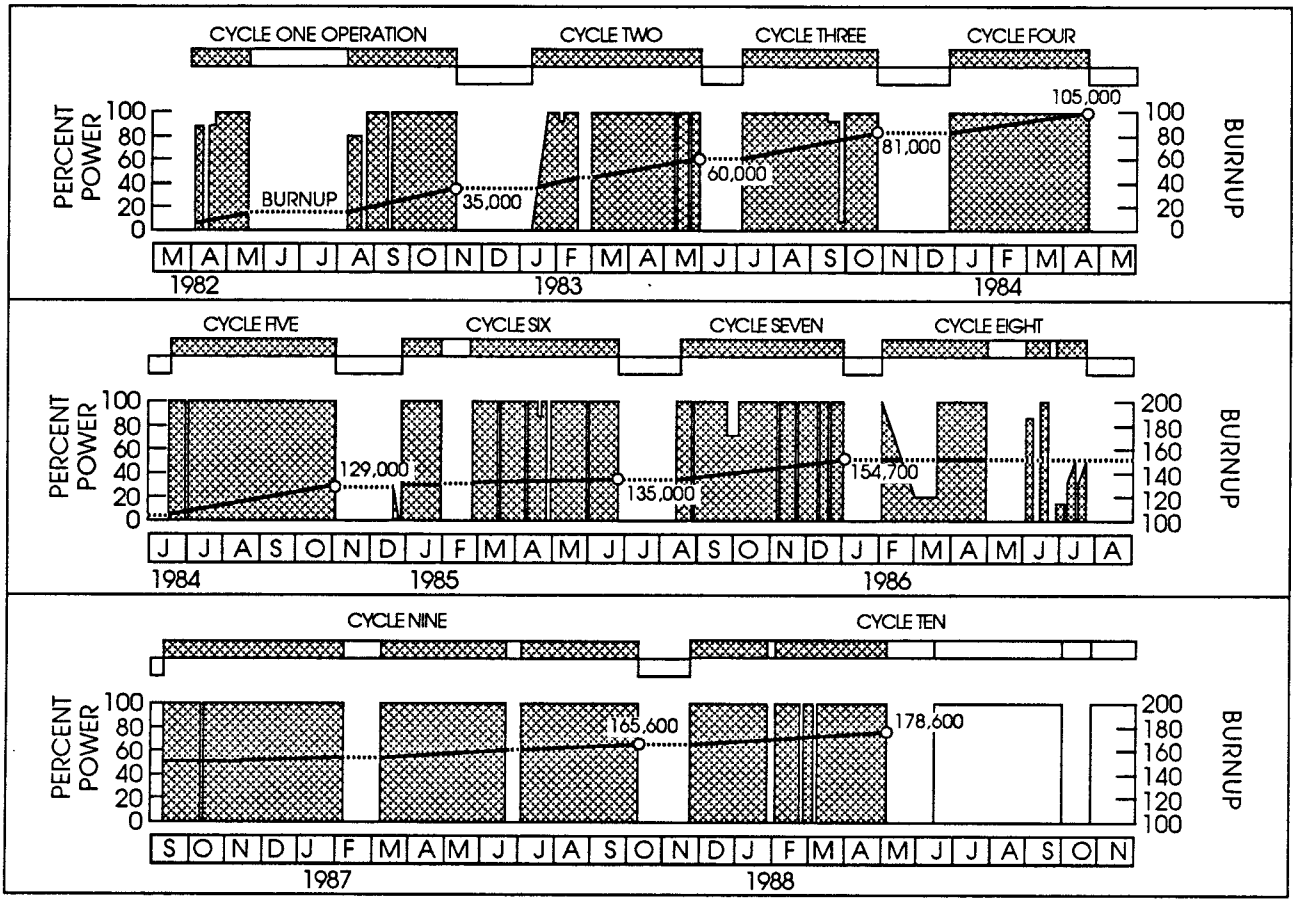
ASSESSMENT

PLANNING FOR THE S10B OUTAGE APPEARS TO HAVE BEEN A SUCCESS STORY WHEN COMPARED TO PAST OUTAGE PREPARATIONS. IT IS IMPORTANT TO NOTE THAT TWO SIGNIFICANT EXTENSIONS TO THE P10A OPERATING PHASE ALLOWED MORE TIME TO PREPARE FOR S10B.

MAY 1988	R. D. REDEKOPP	376-9668	FIGURE 25

FFTF OPERATING HISTOGRAM

OPERATING HISTOGRAM



OPERATING STATISTICS

	CYCLE 1	CYCLE 2	CYCLE 3	CYCLE 4	CYCLE 5	CYCLE 6	CYCLE 7	CYCLE 8	CYCLE 9	CYCLE 10 (5/31/88)
EFPD FOR CYCLE:	101.5	100.5	101.5	109.5	122.7	134.0	122.8	63.0	341.8	151.8
TOTAL PLANT EFPD AT END OF CYCLE:	134.3	234.8	336.3	445.8	568.5	702.5	825.3	888.3	1230.1	1381.9
CYCLE CAPACITY FACTOR (%):	50.3	83.1	93.5	99.5	93.5	74.9	90.3	38.9	86.6	77.8
AVAILABILITY FACTOR (%):	53.0	90.6	99.0	100.0	94.6	78.5	94.6	57.9	89.6	81.9
NUMBER OF EXPERIMENTS:	61	64	57	51	51	41	31	19	44	40
MAXIMUM FUEL BURNUP AT END OF CYCLE (MWd/MT):	35,000	60,000	81,000	105,000	129,000	135,000	154,700	154,700	165,600	178,600

ANNUAL OPERATIONAL PERFORMANCE

	1982 *	1983	1984	1985	1986	1987
CAPACITY FACTOR (%):	40.5	56.9	66.4	71.0	46.2	76.5
AVAILABILITY FACTOR (%):	42.8	61.1	67.6	73.0	56.8	78.7
OPERATIONAL EFFICIENCY FACTOR (%):	63.5	97.6	92.6	98.0	98.1	100.0

* Reporting began at start of Cycle 1 on April 16, 1982

MAY 1988	W. M. RITTER	376-0758	FIGURE 26

DISTRIBUTION

FFTF PERFORMANCE MONITORING MANAGEMENT INFORMATION

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R. H. Koga/T.C. Varljen	B3-07	M. W. Walcher	B4-52
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