AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 2865

FILE: MON REPT FILE P/O

FROM:	DATE OF DOC	DATE REC'D	LTR	MEMO	RPT	OTHER
Duke Power Company Charlotte, North Carolina A. C. Thies	3-12-74	4-2-74	X			

TO:	ORIG	CC	OTHER	SENT AEC PDR XXX SENT LOCAL PDR XXX
Director	1 signed			

CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:
	XXX			1	50-269/270

DESCRIPTION:

Ltr re our ltr 2-19-74 trans the following...

ACKNOWLEDGED

PLANT NAME: OCONEE UNITS 1 & 2

ENCLOSURES:

Report: January & February Plant & Component Operability & Availability...this rpt to be used for preparing Grey Book by Plans & Operations

DO NOT REMOVE

(1 cy encl rec'd)

FOR ACTION/INFORMATION 4-4-74 GMC

BUTLER(L)	✓SCHWENCER(L)	ZIEMANN(L)	REGAN(E)
W/ Copies	W/1 Copies info	W/ Copies	W/ Copies
CLARK(L)	STOLZ(L)	DICKER(E)	✓W. MAGEE
W/ Copies	W/ Copies	W/ Copies	W/2 Copies
GOLLER(L)	VASSALLO(L)	KNIGHTON(E)	
W/ Copies	W/ Copies	W/ Copies	W/ Copies
KNIEL(L)	SCHEMEL(L)	YOUNGBLOOD(E)	
W/ Copies	W/ Copies	W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

✓REG FILE Ltr 270	TECH REVIEW	DENTON		A/T IND
✓AEC PDR Ltr 270	HENDRIE	GRIMES	LIC ASST	BRAITMAN
✓OGC, ROOM P-506A	SCHROEDER	GAMMILL	DIGGS (L)	SALTZMAN
✓MUNTZING/STAFF	MACCARY	KASTNER	GEARIN (L)	B. HURT
CASE	KNIGHT	BALLARD	GOULBOURNE (L)	
GIAMBUSSO	PAWLICKI	SPANGLER	LEE (L)	✓PLANS
BOYD	SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(BWR)	STELLO	ENVIRO	REED (E)	DUBE w/Input
DEYOUNG(L)(PWR)	HOUSTON	MULLER	SERVICE (L)	
SKOVHOLT (L)	NOVAK	DICKER	SHEPPARD (L)	INFO
P. COLLINS	ROSS	KNIGHTON	SLATER (E)	C. MILES
DENISE	IPPOLITO	YOUNGBLOOD	SMITH (L)	B. KING
REG OPR	TEDESCO	REGAN	TEETS (L)	✓S. CHAPMAN
FILE & REGION(3)	LONG	PROJECT LDR	WADE (E)	
MORRIS	LAINAS		WILLIAMS (E)	
STEELE	BENAROYA	HARLESS	WILSON (L)	
	VOLLMER			

EXTERNAL DISTRIBUTION

✓1 - LOCAL PDR WALHALLA, SC
✓1 - DTIE(ABERNATHY)
✓1 - NSIC(BUCHANAN)
1 - ASLB(YORE

16 - CYS ACRS HOLDING

(1)(2)(10)-NATIONAL LAB'S
1-ASLBP(E/W Bldg, Rm 529)
1-W. PENNINGTON, Rm E-201 GT
1-CONSULTANT'S
NEWMARK/BLUME/AGBABIAN
1-GERALD ULRIKSON...ORNL

1-PDR-SAN/LA/NY
1-GERALD LELLOUCHE
BROOKHAVEN NAT. LAB
1-AGMED(Ruth Gussman)
RM-B-127, GT.
1-RD..MULLER..F-309 GT

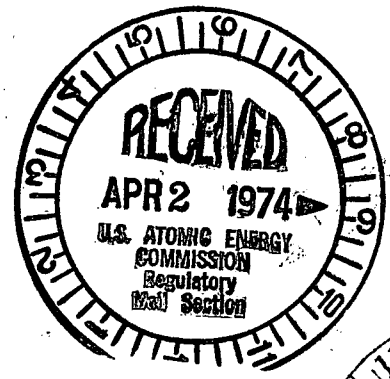
kg

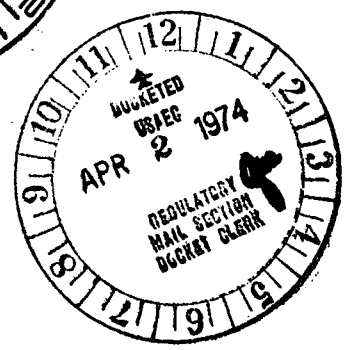
Regulatory File Cy.

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28201

A. C. THIES
SENIOR VICE PRESIDENT
PRODUCTION AND TRANSMISSION

P. O. BOX 2178





March 12, 1974

Director
Office of Plans and Schedules
Directorate of Licensing
Office of Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545

Re: Oconee Nuclear Station
Units 1 and 2
Docket Nos. 50-269 and 50-270

Dear Sir:

Please find attached information requested in Mr. L. Manning Muntzing's letter of February 19, 1974 supplemented by his telefax of February 28, 1974. This information is submitted on the forms which you have provided and covers the performance and operating status of Oconee Units 1 and 2 for the months of January and February 1974.

By copy of this letter to Mr. Muntzing, I am suggesting certain changes to definitions in your AEC Operating Status Report. The utility industry has for a number of years reported similar information to the Edison Electric Institute using standardized definitions of such terms as availability factors, capacity factors, and outage rates. These definitions are contained in the appendix to "Report on Equipment Availability for the 13-Year Period, 1960-1972," EEI Publication #73-46, issued December, 1973, a Report of the Equipment Availability Task Force of the Prime Movers Committee, Edison Electric Institute, 90 Park Avenue, New York, New York, 10016. A copy of this appendix is attached.

The use of standardized definitions has made possible the comparison and evaluation of power plant performance data from much of the utility industry. We believe that the adoption of the EEI standardized definitions would enable both you and us to better evaluate nuclear power plant performance and would facilitate comparison of nuclear and fossil power plants. Specifically, the following suggestions are offered.

1. Item 10 in the AEC Operating Status Report is "Reactor Availability Factor," which is defined as:

2865

$$\text{Reactor Availability Factor} = \frac{\text{Hours Reactor was Critical}}{\text{Gross Hours in Reporting Period}} \times 100$$

This definition should correspond to what the EEI calls "Operating Availability Factor":

$$\text{Reactor Availability Factor} = \frac{\text{Reactor Available Hours}}{\text{Period Hours}} \times 100$$

Where: Available Hours = Time in hours during which a reactor is available or Service Hours plus Reserve Shutdown Hours.

Reserve Shutdown Hours = Number of hours for which a reactor is removed from service for economy or similar reasons but is still available.

Your present definition corresponds to what the EEI calls "Service Factor":

$$\text{Service Factor} = \frac{\text{Service Hours}}{\text{Period Hours}} \times 100$$

Where: Service Hours = Total number of hours that a unit was actually operated (i.e., the reactor was critical)

Period Hours = Clock hours in the period under consideration.

2. The same general comments apply to plant availability factor which is Item 11 in your Operating Status Report.

3. Your definition of "Plant Capacity Factor" (Item 12) generally matches the EEI definition, except that EEI does not specify net generation. However, this can be optional as far as we are concerned. We do note, however, that your capacity factor uses "currently licensed power level" in the denominator. The currently licensed thermal power level for Oconee is 2568 MWt; we do not have a currently licensed electrical power level. We have declared the maximum net dependable capability of our Oconee Unit 1 to be 871 MWe, even though the equivalent electrical power calculated from the thermal power was 886.3 MWe. The 871 MWe is the "commercial rating" of the unit, since this is what the generator will produce as net available to the system on a continuous basis.

We believe that the 871 MWe maximum net dependable capability is the number that should be used in the denominator of your formula for plant capability factor. This maximum net dependable capability should also replace that portion of Item 2 of the Operating Status Report which requests currently authorized power level - MWe-NET.

4. Your Item 13, which defines forced outage rate, is consistent with the EEI definition.

5. To be consistent throughout the operating status report, the term "Gross Hours in Reporting Period," should be replaced by the EEI term, "Period Hours."

Over the years, our industry has had some inconsistency in the definition of these various factors, and in recent years, EEI has been able to bring some order out of this chaos by publishing specific definitions which have been generally accepted by the utility industry. Duke Power Company urges the commission to standardize its definitions with those of the Edison Electric Institute to the extent practicable.

Very truly yours,

A. C. Thies

A. C. Thies

ACT:vr
Attachment

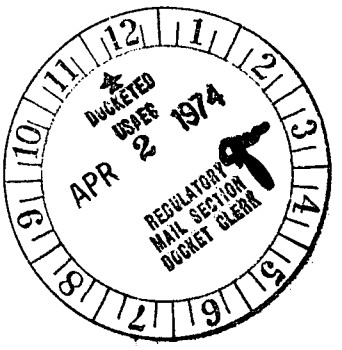
cc: Mr. L. Manning Muntzing
Mr. N. C. Moseley
Mr. E. C. Kistner, Chairman
Prime Movers Committee, EEI
Mr. H. J. Young, Vice President
& Secretary, EEI

APPENDIX TO

REPORT ON EQUIPMENT AVAILABILITY

FOR THE

THIRTEEN-YEAR PERIOD, 1960-1972



EEI Publication No. 73-46

Issued December 1973

A Report of the

EQUIPMENT AVAILABILITY TASK FORCE

of the

PRIME MOVERS COMMITTEE

EDISON ELECTRIC INSTITUTE

90 Park Avenue New York, N. Y., 10016

APPENDIX

A. EQUIPMENT DEFINITIONS

1. Non-header Unit	Unit in which a single boiler is connected solely and independently to a given turbine-generator.
2. Header Unit	Unit in which the turbine-generator is not solely and independently connected to single boiler.
3. Major Equipment	Major group of equipment within a unit, such as: boiler, reactor, generator, steam turbine, condenser.
4. Component	Part within a "major equipment" group, such as: superheater tube, governor, buckets, boiler feed pump.
5. Maximum Dependable Capacity (MDC)	The dependable main-unit capacity winter or summer, whichever is smaller.

B. OPERATION AND OUTAGE DEFINITIONS

1. Available	The status of a unit or major piece equipment which is capable of service, whether or not it is actually in service.
2. Base Loading	When a unit is generally run at or near rated output.
3. Cranking Loading	When a unit is generally shut down on standby for auxiliary power during emergency.
4. Cycling Loading	When a unit is generally run but at a load which varies widely with system demand.
5. Economy Outage	(See Reserve Shutdown)
6. Forced Outage	The occurrence of a component failure or other condition which requires that the unit be removed from service immediately or up to and including the very next weekend.

APPENDIX

(Continued)

7. Forced Partial Outage	The occurrence of a component failure or other condition which requires that the load on the unit be reduced 30 MW or more immediately or up to and including the very next weekend.
8. Maintenance Outage	The removal of a unit from service to perform work on specific components which could have been postponed past the very next weekend. This is work done to prevent a potential forced outage and which could not be postponed from season to season.
9. Non-curtailing Equipment Outage	The removal of a specific component from service for repair, which causes no reduction in unit load or a reduction of less than 30 MW.
10. Non-operating Equipment Test	A scheduled test or required operation of a back-up system which is not normally operating.
11. Outage Cause	A component failure, preventive maintenance, or other condition which requires that the unit or a component be taken out of service or run at reduced capacity.
12. Peaking Loading	When a unit is generally shut down and is run only during high demand periods.
13. Planned Outage	The removal of a unit from service for inspection and/or general overhaul of one or more major equipment groups. This is work which is usually scheduled well in advance (e.g., annual boiler overhaul, five-year turbine overhaul).
14. Reserve Shutdown	The removal of a unit from service for economy or similar reasons. This status continues as long as the unit is out but available for operation.

APPENDIX

(Continued)

15. Scheduled Partial Outage	The occurrence of a component failure or other condition which requires that the load on the unit be reduced 30 MW or more but where this reduction could be postponed past the very next weekend.
16. Unavailable	The status of any major piece of equipment which renders it inoperable because of the failure of a component, work being performed or other adverse condition.

C. TIME DEFINITIONS

1. Available Hours (AH)	The time in hours during which a unit or major equipment is available; SH + RSH.
2. Demand Period	The time interval each day which is the period of maximum demand on a particular system.
3. Economy Outage Hours (See Reserve Shutdown Hours) (TEOH)	The theoretical value of Economy Outage Hours (TEOH) is the difference between Available Hours and Service Hours. If the TEOH differs by less than 1% with the Economy Outage Hours reported at the end of the year, they are considered equal and flagged with Code 1. If the difference is more than 1%, but less than 10%, they are flagged with Code 3; but the reported Economy Outage Hours are still used. However, if the difference is greater than 10%, the calculated value TEOH is used, and Code 2 is a flag that Economy Outage Hours have been derived.
4. Forced Outage Hours (FOH)	The time in hours during which a unit or major equipment was unavailable due to a Forced Outage.
5. Forced Partial Outage Hours (FPOH)	The time in hours during which a unit or major equipment is unavailable for full load due to a forced partial outage.

APPENDIX

(Continued)

6. Hours Waiting (HW)	That portion of time for any outage during which no work could be performed. This includes time for cooling down equipment and shipment of parts. This is time that could not be affected by a change in work schedule or the number of men worked.
7. Maintenance Outage Hours (MOH)	The time in hours during which a unit or major equipment is unavailable due to a maintenance outage.
8. Period Hours (PH)	The clock hours in the period under consideration. (Generally one year)
9. Planned Outage Hours (POH)	The time in hours during which a unit or major equipment is unavailable due to a planned outage.
10. Reserve Shutdown Hours (RSH)	Reserve shutdown duration in hours.
11. Schedule Partial Outage Hours (SPOH)	The time in hours during which a unit or major equipment is unavailable for full load due to a scheduled partial outage.
12. Service Hours (SH)	The total number of hours the unit was actually operated with breakers closed to the station bus.
13. Unit Years (UY)	This term is the common denominator used to normalize data from units of the same type with different lengths of service. The following example contains 20 UY of experience from 4 units. Unit A B C D 4 Years in Service 8 3 7 2 20
14. Work (Manhours Worked) (MH)	The total number of manhours worked on or off site to accomplish repairs.

D. EQUATIONS

1. Average Forced Outage Duration	(Summation of FOH)/(Number of Forced Outages)
2. Capacity Factor	[(Total Generation in MW-Hr)/(PH x MDC)]100
3. Component Outage Severity Index	The average number of forced outage hours of a specific component per incident.

APPENDIX

(Continued)

4. Equivalent Forced Outage Rate (EFOR) (for each forced partial outage, an equivalent full load outage duration is calculated to include the effect of partial as well as full forced outages on the forced outage rate)	EFOR is calculated as follows: TE = FPOH(CR/CF) WHERE: TE is equivalent forced outage time CR is size of reduction or derating from full load CF is rated capacity THEN: EFOR = 100((TF + TES)/(TO + TF + TAS + TPS)) WHERE: TF is total full forced outage time TO is total operation time at 100% availability TAS is sum of actual forced partial outage times TES is sum of equivalent forced outage times TPS is sum of equivalent scheduled partial operating times
5. Forced Outage Incident Rate	[(Forced Incidents)/(Forced + Maintenance + Planned Incidents)] 100
6. Forced Outage Rate	[FOH / (SH + FOH)] 100
7. Forced Outage Ratio	[FOH/(Total Unavailable Hours)] 100
8. Operating Availability	[AH/PH] 100
9. Output Factor LOAD FACTOR	(Total generation in MW-Hr.) x 100/ (SH x MDC)
10. Service Factor	[SH/PH] 100

APPENDIX

(Continued)

11. Relative Mechanical Availability (RMA)

Relative Mechanical Availability is a form of Operating Availability adjusted to show relative effort. The prime assumption is that most outage time is affected by work schedules and crew sizes. Relative Mechanical Availability uses an Adjusted Outage Time (AOT) based on effort. Manhours worked is a measure of effort which is reasonably independent or work schedules and crew sizes. Manhours worked (MH) divided by a standard work force (SWF) gives a derived time worked based on effort. If we assume a round-the-clock schedule, then this derived time worked is almost a derived outage time based on effort. The difference is the amount of outage time which is independent of effort called Hours Waiting (HW), See Appendix C-6. An arbitrary assumption of ten men for the standard work force gives:

$$AOT = HW + MH/10$$

Then substituting AOT for outage time in the equation for operating availability gives:

$$RMA = [(PH-AOT)/PH]\ 100$$
$$= [(PH-(HW + MH/10))/PH]\ 100$$

UNIT Oconee Unit 1

DATE February 28, 1974

MAJOR SHUTDOWN FORECAST

(5-year forecast; report one-time only)

PURPOSE(s)	BEGIN DATE	END DATE
Modifications to high energy lines outside containment	April 24, 1974	May 7, 1974
Refueling	Oct. 20, 1974	Nov. 16, 1974
Refueling; Integrated Leak Rate Test	Oct. 5, 1975	Oct. 25, 1975
Refueling; In-Service Inspection	Oct. 3, 1976	Nov. 6, 1976
Refueling	Oct. 2, 1977	Oct. 22, 1977
Refueling	Oct. 1, 1978	Nov. 4, 1978
Refueling, Integrated Leak Rate Test; In-Service Inspection	Sept. 9, 1979	Oct. 13, 1979

UNIT Oconee Unit 2

DATE February 28, 1974

MAJOR SHUTDOWN FORECAST

(5-year forecast; report one-time only)

PURPOSE(s)	BEGIN DATE	END DATE
Refueling	Nov. 30, 1975	Dec. 31, 1975
Refueling; In-Service Inspection;	Nov. 28, 1976	Dec. 31, 1976
Integrated Leak Rate Test		
Refueling	Nov. 27, 1977	Dec. 31, 1977
Refueling	Dec. 10, 1978	Dec. 31, 1978
Refueling, In-Service Inspection	Nov. 25, 1979	Dec. 31, 1979

UNIT Oconee Unit 1

DATE March 12, 1974

O P E R A T I N G S T A T U S

1. REPORTING PERIOD: January 1 TO January 31, 1974

   GROSS HOURS IN REPORTING PERIOD: 743

2. CURRENTLY AUTHORIZED POWER LEVEL MWt 2568 MWe-NET 871

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY):

4. REASONS FOR RESTRICTIONS (IF ANY):

		THIS MONTH	YR-TO-DATE	CUMULATIVE TO DATE
5.	HOURS REACTOR WAS CRITICAL	336.6	336.6	4690.5
6.	HOURS GENERATOR ON-LINE	295.1	295.1	3284.2
7.	GROSS THERMAL POWER GENERATED (MWH)	653807	653807	6664688
8.	GROSS ELECTRICAL POWER GENERATED (MWH)	221952	221952	2310540
9.	NET ELECTRICAL POWER GENERATED (MWH)	205649	205649	2164727
10.	REACTOR AVAILABILITY FACTOR (1)	45.3	45.3	97.7
11.	PLANT AVAILABILITY FACTOR (2)	39.7	39.7	68.4
12.	PLANT CAPACITY FACTOR (3)	31.8	31.8	51.8
13.	FORCED OUTAGE RATE (4)	10.8	10.8	9.1

14. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE AND DURATION OF EACH): Two week shutdown for modifications to high energy lines outside containment to commence April 24, 1974.

15. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: _____

16. PLANTS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED	REASON FOR DIFFERENCE
INITIAL CRITICALITY			
INITIAL ELECTRICAL POWER GENERATION			
COMMERCIAL OPERATION			

(1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{GROSS HOURS IN REPORTING PERIOD}}$ *100

(2) PLANT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON-LINE}}{\text{GROSS HOURS IN REPORTING PERIOD}}$ *100

(3) PLANT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{CURRENTLY LICENSED POWER LEVEL*GROSS HOURS IN REPORTING PERIOD}}$

(4) FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON-LINE + FORCED OUTAGE HOURS}}$ * 100

UNIT Oconee Unit 1

DATE 3/12/74

DAILY PLANT POWER OUTPUT

MONTH January, 1974

DAY	AVERAGE DAILY MWe-net	DAY	AVERAGE DAILY MWe-net
1	-113	22	8820
2	-138	23	-825
3	-158	24	11393
4	-165	25	16979
5	-150	26	20556
6	-180	27	20289
7	-140	28	20865
8	-239	29	20473
9	-163	30	20650
10	-507	31	20697
11	-240		
12	-119		
13	-115		
14	-120		
15	-117		
16	-322		
17	-786		
18	4128		
19	12150		
20	16041		
21	17205		

SUMMARY:

UNIT NAME Oconee Unit 1
DATE March 12, 1974

REPORT MONTH January, 1974

P L A N T S H U T D O W N S

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
1	740101	S	412.5	B	A	
2	740122	F	35.7	A	C	Generator differential relay 87G failed causing turbine-generator/reactor trip.

(1) REASON:
A-EQUIPMENT FAILURE (EXPLAIN)
B-MAINT. OR TEST
C-REFUELING
D-REGULATORY RESTRICTION
E-OPERATOR TRAINING AND LICENSE EXAMINATION
F-ADMINISTRATIVE
G-OPERATIONAL ERROR (EXPLAIN)

(2) METHOD:
A- MANUAL
B- MANUAL SCRAM
C- AUTOMATIC SCRAM

UNIT Oconee Unit 1

DATE March 12, 1974

O P E R A T I N G S T A T U S

1. REPORTING PERIOD: February 1 TO February 28, 1974

   GROSS HOURS IN REPORTING PERIOD: 672

2. CURRENTLY AUTHORIZED POWER LEVEL MWt 2568 MWe-NET 871

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY): _____

4. REASONS FOR RESTRICTIONS (IF ANY):

		THIS MONTH	YR-TO-DATE	CUMULATIVE TO DATE
5.	HOURS REACTOR WAS CRITICAL	608.3	944.9	5298.8
6.	HOURS GENERATOR ON-LINE	602.3	897.4	3886.4
7.	GROSS THERMAL POWER GENERATED (MWH)	1448355	2102162	8113043
8.	GROSS ELECTRICAL POWER GENERATED (MWH)	514700	736652	2825240
9.	NET ELECTRICAL POWER GENERATED (MWH)	489702	695351	2654429
10.	REACTOR AVAILABILITY FACTOR (1)	90.5	45.6	96.9
11.	PLANT AVAILABILITY FACTOR (2)	89.6	63.4	70.7
12.	PLANT CAPACITY FACTOR (3)	83.7	56.4	55.7
13.	FORCED OUTAGE RATE (4)	10.4	10.5	9.3

14. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE AND DURATION OF EACH): Two week shutdown for modifications to high energy lines outside containment to commence April 24, 1974.

15. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: _____

16. PLANTS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED	REASON FOR DIFFERENCE
INITIAL CRITICALITY			
INITIAL ELECTRICAL POWER GENERATION			
COMMERCIAL OPERATION			

(1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{GROSS HOURS IN REPORTING PERIOD}} * 100$

(2) PLANT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON-LINE}}{\text{GROSS HOURS IN REPORTING PERIOD}} * 100$

(3) PLANT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{CURRENTLY LICENSED POWER LEVEL} * \text{GROSS HOURS IN REPORTING PERI}}$

(4) FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON-LINE + FORCED OUTAGE HOURS}} * 100$

UNIT Oconee Unit 1

DATE March 12, 1974

DAILY PLANT POWER OUTPUT

MONTH February, 1974

DAY	AVERAGE DAILY MWe-net	DAY	AVERAGE DAILY MWe-net
1	20734	22	20821
2	20543	23	20876
3	17403	24	20883
4	18227	25	17136
5	20391	26	20697
6	20665	27	20796
7	20955	28	20819
8	20844	29	
9	20760	30	
10	20612	31	
11	12390		
12	-535		
13	-546		
14	777		
15	12655		
16	16999		
17	20955		
18	21028		
19	20976		
20	20945		
21	20896		

SUMMARY:

UNIT NAME Oconee Unit 1

DATE March 12, 1974

REPORT MONTH February, 1974

P L A N T S H U T D O W N S

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
3	740211	F	69.6	A	A	Two control rod drive stators failed, causing two control rods to drop into the core.

(1) REASON:
A-EQUIPMENT FAILURE (EXPLAIN)
B-MAINT. OR TEST
C-REFUELING
D-REGULATORY RESTRICTION
E-OPERATOR TRAINING AND LICENSE EXAMINATION
F-ADMINISTRATIVE
G-OPERATIONAL ERROR (EXPLAIN)

(2) METHOD:
A- MANUAL
B- MANUAL SCRAM
C- AUTOMATIC SCRAM

UNIT Oconee Unit 2

DATE March 12, 1974

OPERATING STATUS

1. REPORTING PERIOD: January 1 TO January 31, 1974

   GROSS HOURS IN REPORTING PERIOD: 743

2. CURRENTLY AUTHORIZED POWER LEVEL MWt 2568 MWe-NET _____

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY): None

4. REASONS FOR RESTRICTIONS (IF ANY):
   Oconee Unit 2 is presently in power escalation testing and is not commercially operable. Items 10-13 are not applicable.

		THIS MONTH	YR-TO-DATE	CUMULATIVE TO DATE
5.	HOURS REACTOR WAS CRITICAL	85.6	85.6	743.0
6.	HOURS GENERATOR ON-LINE	64.0	64.0	577.2
7.	GROSS THERMAL POWER GENERATED (MWH)	104099	104099	709271
8.	GROSS ELECTRICAL POWER GENERATED (MWH)	33000	33000	209310
9.	NET ELECTRICAL POWER GENERATED (MWH)	25964	25964	178251
10.	REACTOR AVAILABILITY FACTOR (1)	____	_____	_____
11.	PLANT AVAILABILITY FACTOR (2)	____	_____	_____
12.	PLANT CAPACITY FACTOR (3)	____	_____	_____
13.	FORCED OUTAGE RATE (4)	____	_____	_____

14. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE AND DURATION OF EACH):

15. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: _____

16. PLANTS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED	REASON FOR DIFFERENCE
INITIAL CRITICALITY	_____	11/11/73	_____
INITIAL ELECTRICAL POWER GENERATION	_____	12/5/73	_____
COMMERCIAL OPERATION	5/15/74	_____	_____

(1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{GROSS HOURS IN REPORTING PERIOD}}$ *100

(2) PLANT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON-LINE}}{\text{GROSS HOURS IN REPORTING PERIOD}}$ *100

(3) PLANT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{CURRENTLY LICENSED POWER LEVEL*GROSS HOURS IN REPORTING PER}}$

(4) FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON-LINE + FORCED OUTAGE HOURS}}$ * 100

UNIT Oconee Unit 2

DATE March 12, 1974

O P E R A T I N G S T A T U S

1. REPORTING PERIOD: February 1 TO February 28

   GROSS HOURS IN REPORTING PERIOD: 672

2. CURRENTLY AUTHORIZED POWER LEVEL MWt 2568 MWe-NET _____

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY): None

4. REASONS FOR RESTRICTIONS (IF ANY):
   Oconee Unit 2 is presently in power escalation testing and is not commercially operable. Items 10-13 are not applicable

		THIS MONTH	YR-TO-DATE	CUMULATIVE TO DATE
5.	HOURS REACTOR WAS CRITICAL	0	85.6	743.0
6.	HOURS GENERATOR ON-LINE	0	64.0	577.2
7.	GROSS THERMAL POWER GENERATED (MWH)	0	104099	709271
8.	GROSS ELECTRICAL POWER GENERATED (MWH)	0	33000	209310
9.	NET ELECTRICAL POWER GENERATED (MWH)	-2352	23612	175899
10.	REACTOR AVAILABILITY FACTOR (1)			
11.	PLANT AVAILABILITY FACTOR (2)			
12.	PLANT CAPACITY FACTOR (3)			
13.	FORCED OUTAGE RATE (4)			

14. SHUTDOWNS SCHEDULED TO BEGIN IN NEXT 6 MONTHS (STATE TYPE, DATE AND DURATION OF EACH):

15. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: _____

16. PLANTS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION) REPORT THE FOLLOWING:

	DATE LAST FORECAST	DATE ACHIEVED	REASON FOR DIFFERENCE
INITIAL CRITICALITY		11/11/73	
INITIAL ELECTRICAL POWER GENERATION		12/5/73	
COMMERCIAL OPERATION	5/15/74		

(1) REACTOR AVAILABILITY FACTOR = $\frac{\text{HOURS REACTOR WAS CRITICAL}}{\text{GROSS HOURS IN REPORTING PERIOD}}$ *100

(2) PLANT AVAILABILITY FACTOR = $\frac{\text{HOURS GENERATOR ON-LINE}}{\text{GROSS HOURS IN REPORTING PERIOD}}$ *100

(3) PLANT CAPACITY FACTOR = $\frac{\text{NET ELECTRICAL POWER GENERATED}}{\text{CURRENTLY LICENSED POWER LEVEL*GROSS HOURS IN REPORTING PER}}$

(4) FORCED OUTAGE RATE = $\frac{\text{FORCED OUTAGE HOURS}}{\text{HOURS GENERATOR ON-LINE + FORCED OUTAGE HOURS}}$ * 100

SUMMARY:

UNIT NAME Oconee Unit 2

DATE February 28, 1974

REPORT MONTH January, 1974

PLANT SHUTDOWNS

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
1	740101	F	27	B	A	Repaired feedwater and condensate system valves
2	740104	F	410.7	A	C	Detected loose object in reactor vessel lower head following reactor trip; AEC approval to continue operation granted January 15, 1974
3	740122	F	198.3	A	B	Reactor coolant pump 2B2 seal failed

(1) REASON:
A-EQUIPMENT FAILURE (EXPLAIN)
B-MAINT. OR TEST
C-REFUELING
D-REGULATORY RESTRICTION
E-OPERATOR TRAINING AND LICENSE EXAMINATION
F-ADMINISTRATIVE
G-OPERATIONAL ERROR (EXPLAIN)

(2) METHOD:
A- MANUAL
B- MANUAL SCRAM
C- AUTOMATIC SCRAM

SUMMARY:

UNIT NAME Oconee Unit 2

DATE March 12, 1974

REPORT MONTH February, 1974

P L A N T S H U T D O W N S

NO.	DATE	TYPE F-FORCED S-SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	COMMENTS
3	740122	F	672.0	A	B	Reactor coolant pump 2B2 seal failed.

(1) REASON:
A-EQUIPMENT FAILURE (EXPLAIN)
B-MAINT. OR TEST
C-REFUELING
D-REGULATORY RESTRICTION
E-OPERATOR TRAINING AND LICENSE EXAMINATION
F-ADMINISTRATIVE
G-OPERATIONAL ERROR (EXPLAIN)

(2) METHOD:
A- MANUAL
B- MANUAL SCRAM
C- AUTOMATIC SCRAM