



Duke Power Company  
A Duke Energy Company  
Energy Center  
P.O. Box 1006  
Charlotte, NC 28201-1006

January 13, 2000

U.S Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Subject: Duke Energy Corporation  
Oconee Nuclear Station, Units 1, 2, and 3  
Docket Numbers 50-269, 50-270 and 50-287  
Monthly Performance and Operation Status-December, 1999

Please find attached information concerning the performance and operation status of the Oconee Nuclear Station for the month of December, 1999.

Any questions or comments may be directed to Roger A. Williams at (704) 382-5346.

Sincerely,

Terry Dimmery, Manager  
Nuclear Business Support

Attachment  
XC:

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Dave LaBarge, Project Manager  
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RGC Site Licensing File  
ELL (EC050)

# Operating Data Report

Docket No. 50-269  
 Date January 13, 2000  
 Completed By Roger Williams  
 Telephone 704-382-5346

## Operating Status

1. Unit Name: Oconee 1
2. Reporting Period: December 1, 1999 - December 31, 1999
3. Licensed Thermal Power (MWt): 2568
4. Nameplate Rating (Gross MWe): 934
5. Design Electrical Rating (Net Mwe): 886
6. Maximum Dependable Capacity (Gross MWe): 886
7. Maximum Dependable Capacity(Net MWe): 846
8. If Changes Occured in Capacity Ratings (Items Number 3-7) Since Last Report, Give Reasons:

Notes: Year-to-date and cumulative capacity factors are calculated using a weighted average for maximum dependable capacity.

9. Power Level To Which Restricted, If Any (Net MWe): \_\_\_\_\_

10. Reason for Restrictions, If any: \_\_\_\_\_

	This Month	YTD	Cumulative
11. Hours in Reporting Period	744.0	8760.0	231961.0
12. Number of Hours Reactor was Critical	744.0	7521.1	179828.2
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	744.0	7383.5	176613.6
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1910592	18816250	435322854
17. Gross Electrical Energy Generated (MWH)	665223	6512330	150436090
18. Net Electrical Energy Generated (MWH)	636451	6209775	142994036
19. Unit Service Factor	100.0	84.3	76.2
20. Unit Availability Factor	100.0	84.3	76.2
21. Unit Capacity Factor (Using MDC Net)	101.1	83.8	72.1
22. Unit Capacity Factor (Using DER Net)	96.6	80.0	69.6
23. Unit Forced Outage Rate	0.0	3.8	9.9
24. Shutdown Scheduled Over Next 6 Months (Type, Date and Duration of Each)			

25. If ShutDown At End Of Report Period, Estimated Date of Startup

26. Units in Test Status (Prior to Commercial Operation)

	Forecast	Achieved
Initial Criticality	_____	_____
Initial Electricity	_____	_____
Commercial Operation	_____	_____

NRC Calculated from Generator Nameplate Data:  
 1 037 937 KVA x 0.90 Pf=934 MW

**UNIT SHUTDOWNS**

**DOCKET NO.** 50-269

**UNIT NAME:** Oconee 1

**DATE:** January 13, 2000

**COMPLETED BY:** Roger Williams

**TELEPHONE:** 704-382-5346

**REPORT MONTH:** December, 1999

No.	Date:	Type F - Forced S - Scheduled	Duration Hours	(1) Reason	(2) Method of Shutdown R/X	Licensed Event Report No.	Cause and Corrective Action to Prevent Recurrence
			<b>No</b>	<b>Outages</b>	<b>for the Month</b>		

**Summary:**

**(1) Reason**

- A - Equipment failure (Explain)
- B - Maintenance or Test
- C - Refueling
- D - Regulatory restriction

- E - Operator Training/License Examination
- F - Administrative
- G - Operator Error (Explain)
- H - Other (Explain)

**(2) Method**

- 1 - Manual
- 2 - Manual Trip/Scram
- 3 - Automatic Trip/Scram
- 4 - Continuation
- 5 - Other (Explain)

MONTHLY REFUELING INFORMATION REQUEST

1. Facility name: Oconee Unit 1
2. Scheduled next refueling shutdown: November, 2000
3. Scheduled restart following refueling: December, 2000

THE PROJECT MANAGER HAS BEEN ADVISED BY SEPARATE COMMUNICATION OF ANY T.S. CHANGE OR LICENSE AMENDMENT. THEREFORE, QUESTIONS 4 THROUGH 6 WILL NO LONGER BE MAINTAINED IN THIS REPORT.

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

If yes, what will these be?

If no, has reload design and core configuration been reviewed by Safety Review Committee regarding unreviewed safety questions?

5. Scheduled date(s) for submitting proposed licensing action and supporting information.
6. Important licensing considerations (new or different design or supplier, unreviewed design or performance analysis methods, significant changes in design or new operating procedures).
7. Number of Fuel assemblies  
(a) in the core: 177  
(b) in the spent fuel pool: 1070\*  
(c) in the ISFSI: 1104\*\*\*\*
8. Present licensed fuel pool capacity: 1312  
Size of requested or planned increase: \*\*
9. Projected date of last refueling which can be accommodated by present license capacity: March 2013\*\*\*

DUKE POWER COMPANY

DATE: January 13, 2000

Name of Contact: R. A. Williams

Phone: (704) - 382-5346

\* Represents the combined total for Units 1 and 2

\*\* On March 29, 1990, received a license for ISFSI which will store 2112 assemblies

\*\*\* This date is based on 88 Dry Storage Modules. We currently have 48 modules (1152 spaces). Additional modules will be built on an as-needed basis.

\*\*\*\* Represents the combined total for Units 1, 2, and 3

# Operating Data Report

Docket No.	<u>50-270</u>
Date	<u>January 13, 2000</u>
Completed By	<u>Roger Williams</u>
Telephone	<u>704-382-5346</u>

## Operating Status

1. Unit Name: **Oconee 2**
2. Reporting Period: **December 1, 1999 - December 31, 1999**
3. Licensed Thermal Power (MWt): 2568
4. Nameplate Rating (Gross MWe): 934
5. Design Electrical Rating (Net Mwe): 886
6. Maximum Dependable Capacity (Gross MWe): 886
7. Maximum Dependable Capacity (Net MWe): 846
8. If Changes Occured in Capacity Ratings (Items Number 3-7) Since Last Report, Give Reasons:

Notes: Year-to-date and cumulative capacity factors are calculated using a weighted average for maximum dependable capacity.

9. Power Level To Which Restricted, If Any (Net MWe): \_\_\_\_\_

10. Reason for Restrictions, If any: \_\_\_\_\_

	This Month	YTD	Cumulative
11. Hours in Reporting Period	744.0	8760.0	221881.0
12. Number of Hours Reactor was Critical	352.0	7515.6	176557.3
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	244.2	7375.3	174131.5
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	583655	37640512	447041056
17. Gross Electrical Energy Generated (MWH)	191387	6559412	146926343
18. Net Electrical Energy Generated (MWH)	172821	6257602	139931900
19. Unit Service Factor	32.8	84.2	78.5
20. Unit Availability Factor	32.8	84.2	78.5
21. Unit Capacity Factor (Using MDC Net)	27.5	84.4	73.8
22. Unit Capacity Factor (Using DER Net)	26.2	80.6	71.2
23. Unit Forced Outage Rate	33.7	4.7	9.7
24. Shutdown Scheduled Over Next 6 Months (Type, Date and Duration of Each)			

25. If ShutDown At End Of Report Period, Estimated Date of Startup

26. Units in Test Status (Prior to Commercial Operation)

	Forecast	Achieved
Initial Criticality	_____	_____
Initial Electricity	_____	_____
Commercial Operation	_____	_____

NRC Calculated from Generator Nameplate Data:  
 1 037 937 KVA x 0.90 Pf=934 MW

## UNIT SHUTDOWNS

DOCKET NO. 50-270UNIT NAME: Oconee 2DATE: January 13, 2000COMPLETED BY: Roger WilliamsTELEPHONE: 704-382-5346REPORT MONTH: December, 1999

No.	Date:	Type F - Forced S - Scheduled	Duration Hours	(1) Reason	(2) Method of Shutdown R/X	Licensed Event Report No.	Cause and Corrective Action to Prevent Recurrence
4	12/01/99	S	375.87	C	4		END-OF-CYCLE 17 REFUELING OUTAGE
5	12/21/99	F	45.48	A	3		REACTOR TRIP DUE TO REACTOR PROTECTION SYSTEM HIGH REACTOR COOLANT SYSTEM PRESSURE
6	12/24/99	F	78.50	A	3		(REACTOR TRIP) HIGH REACTOR COOLANT SYSTEM PRESSURE DUE TO MAIN TURBINE VALVES CLOSING

**Summary:**

The unit began the month of December, 1999 in end-of-cycle 17 refueling outage. The end-of-cycle 17 refueling outage has spanned 42.62 days. The unit was placed on-line 12/16/99 at 1552 holding at 15% power until 12/16/99 at 1857 to investigate/repair electrical generator voltage transfer DC volt meter. During power escalation, the unit held at 22% power from 1925 to 2021 to place additional powdex cells inservice. The unit held at 37% power from 2230 to 2310 to place "D" heater drain pumps inservice. On 12/17/99 at 0620 the unit held at 59% power until 12/17/99 at 0651 due to shift turnover. The unit increased power and held at 65% power from 0905 to 1138 and held at 73% power from 1426 to 2303 due to nuclear instrumentation calibrations. The unit returned to 100% full power on 12/18/99 at 1615 and operated at or near 100% full power until 12/19/99 at 0629 when the unit began decreasing power and held at 90% power from 0640 to 1858 due to low main feedwater pump suction pressure caused by '2HPE-36' failing closed. The unit returned to 100% full power on 12/19/99 at 2317 and operated at or near 100% full power until 12/21/99 at 1852 when a reactor trip occurred due to reactor protection system high reactor coolant system pressure. The unit was placed on-line 12/23/99 at 1621 holding at 15% power until 1659 to load generator. The unit held at 30% power from 1749 to 1847 due to nuclear instrumentation calibration. The unit held at 38% power from 2132 to 2240 due to control rod group 6 position indication problems. On 12/24/99 from 0110 to 0125 (Cont'd Page 2)

**(1) Reason**

A - Equipment failure (Explain)

B - Maintenance or Test

C - Refueling

D - Regulatory restriction

E - Operator Training/License Examination

F - Administrative

G - Operator Error (Explain)

H - Other (Explain)

**(2) Method**

1 - Manual

3 - Automatic Trip/Scram

5 - Other (Explain)

2 - Manual Trip/Scram

4 - Continuation

## UNIT SHUTDOWNS

DOCKET NO. 50-270

UNIT NAME: Oconee 2DATE: January 13, 2000COMPLETED BY: Roger WilliamsTELEPHONE: 704-382-5346REPORT MONTH: December, 1999

No.	Date:	Type F - Forced S - Scheduled	Duration Hours	(1) Reason	(2) Method of Shutdown R/X	Licensed Event Report No.	Cause and Corrective Action to Prevent Recurrence

**Summary:**

the unit held at 65% power for nuclear instrumentation calibrations. The unit began decreasing from 68% power at 0206 to investigate main turbine intercept valve problems. On 12/24/99 at 0207 a reactor trip occurred due to high reactor coolant system pressure due to all reheat stop and intercept valves closing. The unit was placed on-line 12/27/99 at 0837 holding at 16% power until 1041 to load generator. During power escalation, the unit held at 30% power from 1150 to 1419 to investigate control rod group 6 rod 6 misalignment. The unit held at 73% power from 1821 to 1940 to investigate control rod group 5 rod 5 misalignment. The unit held at 90% power from 2348 to 2350 for nuclear instrumentation check. The unit held at 99% power on 12/28/99 from 0428 to 0649 due to nuclear instrumentation calibration. The unit returned to 100% full power on 12/28/99 at 0802 and operated at or near 100% full power for the remainder of the month.

**(1) Reason**

A - Equipment failure (Explain)

B - Maintenance or Test

C - Refueling

D - Regulatory restriction

E - Operator Training/License Examination

F - Administrative

G - Operator Error (Explain)

H - Other (Explain)

**(2) Method**

1 - Manual

3 - Automatic Trip/Scram

5 - Other (Explain)

2 - Manual Trip/Scram

4 - Continuation



MONTHLY REFUELING INFORMATION REQUEST

1. Facility name: Oconee Unit 2
2. Scheduled next refueling shutdown: May, 2001
3. Scheduled restart following refueling: June, 2001

THE PROJECT MANAGER HAS BEEN ADVISED BY SEPARATE COMMUNICATION OF ANY T.S. CHANGE OR LICENSE AMENDMENT. THEREFORE, QUESTIONS 4 THROUGH 6 WILL NO LONGER BE MAINTAINED IN THIS REPORT.

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

If yes, what will these be?

If no, has reload design and core configuration been reviewed by Safety Review Committee regarding unreviewed safety questions?

5. Scheduled date(s) for submitting proposed licensing action and supporting information.
6. Important licensing considerations (new or different design or supplier, unreviewed design or performance analysis methods, significant changes in design or new operating procedures).
7. Number of Fuel assemblies  
(a) in the core: 177  
(b) in the spent fuel pool: 1070\*  
(c) in the ISFSI: See unit 1 \*\*\*\*
8. Present licensed fuel pool capacity: 1312  
Size of requested or planned increase: \*\*
9. Projected date of last refueling which can be accommodated by present license capacity: October 2013\*\*\*

DUKE POWER COMPANY

DATE: January 13, 2000

Name of Contact: R. A. Williams

Phone: (704) - 382-5346

\* Represents the combined total for Units 1 and 2

\*\* See footnote on Unit 1

\*\*\* This date is based on 88 Dry Storage Modules. We currently have 48 modules (1152 spaces). Additional modules will be built on an as needed basis.

\*\*\*\* See footnote on Unit 1

# Operating Data Report

Docket No.	<u>50-287</u>
Date	<u>January 13, 2000</u>
Completed By	<u>Roger Williams</u>
Telephone	<u>704-382-5346</u>

## Operating Status

1. Unit Name: Oconee 3
2. Reporting Period: December 1, 1999 - December 31, 1999
3. Licensed Thermal Power (MWt): 2568
4. Nameplate Rating (Gross MWe): 934
5. Design Electrical Rating (Net Mwe): 886
6. Maximum Dependable Capacity (Gross MWe): 886
7. Maximum Dependable Capacity (Net MWe): 846
8. If Changes Occured in Capacity Ratings (Items Number 3-7) Since Last Report, Give Reasons:

Notes: Year-to-date and cumulative capacity factors are calculated using a weighted average for maximum dependable capacity.

9. Power Level To Which Restricted, If Any (Net MWe): \_\_\_\_\_

10. Reason for Restrictions, If any: \_\_\_\_\_

	This Month	YTD	Cumulative
11. Hours in Reporting Period	744.0	8760.0	219528.0
12. Number of Hours Reactor was Critical	744.0	8690.9	172052.1
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	744.0	8676.4	169631.2
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	1741104	59675186	460703414
17. Gross Electrical Energy Generated (MWH)	608885	7700086	146217127
18. Net Electrical Energy Generated (MWH)	581347	7369540	139462191
19. Unit Service Factor	100.0	99.0	77.3
20. Unit Availability Factor	100.0	99.0	77.3
21. Unit Capacity Factor (Using MDC Net)	92.4	99.4	74.4
22. Unit Capacity Factor (Using DER Net)	88.2	95.0	71.7
23. Unit Forced Outage Rate	0.0	0.4	10.0
24. Shutdown Scheduled Over Next 6 Months (Type, Date and Duration of Each)			

25. If ShutDown At End Of Report Period, Estimated Date of Startup

26. Units in Test Status (Prior to Commercial Operation)

	Forecast	Achieved
Initial Criticality	_____	_____
Initial Electricity	_____	_____
Commercial Operation	_____	_____

NRC Calculated from Generator Nameplate Data:  
 1 037 937 KVA x 0.90 Pf=934 MW

## UNIT SHUTDOWNS

DOCKET NO. 50-287UNIT NAME: Oconee 3DATE: January 13, 2000COMPLETED BY: Roger WilliamsTELEPHONE: 704-382-5346REPORT MONTH: December, 1999

No.	Date:	Type F - Forced S - Scheduled	Duration Hours	(1) Reason	(2) Method of Shutdown R/X	Licensed Event Report No.	Cause and Corrective Action to Prevent Recurrence
			No	Outages	for the Month		
<b>Summary:</b>							

**(1) Reason**

A - Equipment failure (Explain)

B - Maintenance or Test

C - Refueling

D - Regulatory restriction

E - Operator Training/License Examination

F - Administrative

G - Operator Error (Explain)

H - Other (Explain)

**(2) Method**

1 - Manual

3 - Automatic Trip/Scram

5 - Other (Explain)

2 - Manual Trip/Scram

4 - Continuation

MONTHLY REFUELING INFORMATION REQUEST

1. Facility name: Oconee Unit 3
2. Scheduled next refueling shutdown: April 2000
3. Scheduled restart following refueling: May 2000

THE PROJECT MANAGER HAS BEEN ADVISED BY SEPARATE COMMUNICATION OF ANY T.S. CHANGE OR LICENSE AMENDMENT. THEREFORE, QUESTIONS 4 THROUGH 6 WILL NO LONGER BE MAINTAINED IN THIS REPORT.

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?

If yes, what will these be?

If no, has reload design and core configuration been reviewed by Safety Review Committee regarding unreviewed safety questions?

5. Scheduled date(s) for submitting proposed licensing action and supporting information.
6. Important licensing considerations (new or different design or supplier, unreviewed design or performance analysis methods, significant changes in design or new operating procedures).
7. Number of Fuel assemblies  
(a) in the core: 177  
(b) in the spent fuel pool: 612  
(c) in the ISFSI: See Unit 1 \*\*\*\*
8. Present licensed fuel pool capacity: 825  
Size of requested or planned increase: \*\*
9. Projected date of last refueling which can be accommodated by present license capacity: July 2014\*\*\*

DUKE POWER COMPANY

DATE: January 13, 2000

Name of Contact: R. A. Williams

Phone: (704) - 382-5346

\*\* See footnote of Unit 1

\*\*\* This date is based on 88 Dry Storage Modules. We currently have 48 modules (1152 spaces). Additional modules will be built on an as needed basis.

\*\*\*\* See footnote on Unit 1

OCONEE NUCLEAR STATION

MONTHLY OPERATING STATUS REPORT

NOVEMBER 1999

1. Personnel Exposure -

The total station liquid release for NOVEMBER has been compared with the Technical Specifications maximum annual dose commitment and was less than 10 percent of this limit.

The total station gaseous release for NOVEMBER has been compared with the Technical Specifications maximum annual dose commitment and was less than 10 percent of this limit.