

BYRON NUCLEAR POWER STATION

UNIT 1 AND UNIT 2

MONTHLY PERFORMANCE REPORT

COMMONWEALTH EDISON COMPANY

NRC DOCKET NO. 050-454

NRC DOCKET NO. 050-455

LICENSE NO. NPF-37

LICENSE NO. NPF-66

(0625M/0062M-2)

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I. Monthly Report for Byron Unit 1 for the month of December 1987

A. Summary of Operating Experience for Unit 1

The unit began this reporting period in Mode 1 at 98% power. On 12/19/87, at 0745, power was reduced to 37% to add oil to the 1A reactor coolant pump. By 12/21/87 power was returned to 98%. The unit operated at power levels of up to 98% for the rest of the reporting period.

B. OPERATING DATA REPORT

DOCKET NO.: 050-454  
UNIT: Byron One  
DATE: 01/10/88  
COMPILED BY: D. J. Spitzer  
TELEPHONE: (815)234-5441  
x2023

OPERATING STATUS

- 1. Reporting Period: December 1987. Gross Hours: 744
- 2. Currently Authorized Power Level (MWt): 3411  
Design Electrical Rating: 1175 (MWe-gross)  
Design Electrical Rating: 1120 (MWe-net)  
Max Dependable Capacity (MWe-net): NOT DETERMINED
- 3. Power Level to Which Restricted (If Any): 1097 (Mwe-net)
- 4. Reasons for Restriction (If Any): Steam Generator Split Flow (23MW)

	THIS MONTH	YR TO DATE	CUMULATIVE*
5. Report Period Hrs.	744	8760	20089
6. Rx Critical Hours	744	6210	15312
7. Rx Reserve Shutdown Hours	0	0	37.8
8. Hours Generator on Line	744	6007	14961
9. Unit Reserve Shutdown Hours	0	0	0
10. Gross Thermal Energy (MWH)	2307217	17050016.6	43595850.6
11. Gross Elec. Energy (MWH)	767956	5701545	14625777
12. Net Elec. Energy (MWH)	726878	5321399	13739477
13. Reactor Service Factor	100	70.9	76.2
14. Reactor Availability Factor	100	70.9	76.2
15. Unit Service Factor	100	68.6	74.5
16. Unit Availability Factor	100	68.6	74.5
17. Unit Capacity Factor (MDC net)	N/A	N/A	N/A
18. Unit Capacity Factor (DER net)	87.2	54.2	61.1
19. Unit Forced Outage Hrs.	0	135.1	912.1
20. Unit Forced Outage Rate	0	2.2	5.7
21. Shutdowns Scheduled Over Next 6 Months:			
22. If Shutdown at End of Report Period, Estimated Date of Startup:			
23. Units in Test Status (Prior to Commercial Operation):			None

\*Note - The cumulative numbers do not reflect power generated prior to commercial service.

C. AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 050-454  
UNIT: Byron One  
DATE: 01/10/88  
COMPILED BY: D. J. Spitzer  
TELEPHONE: (815)234-5441  
x2023

MONTH: December, 1987

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)		
1.	1056 MW	16.	977 MW
2.	1072 MW	17.	1044 MW
3.	1069 MW	18.	1025 MW
4.	1070 MW	19.	447 MW
5.	1064 MW	20.	521 MW
6.	999 MW	21.	851 MW
7.	1058 MW	22.	1047 MW
8.	1056 MW	23.	1026 MW
9.	1014 MW	24.	985 MW
10.	1061 MW	25.	981 MW
11.	1054 MW	26.	1053 MW
12.	1046 MW	27.	1065 MW
13.	898 MW	28.	1064 MW
14.	889 MW	29.	976 MW
15.	835 MW	30.	1048 MW
		31.	1021 MW

INSTRUCTIONS

On this form list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt. These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line.) In such cases the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

Report Period December, 1987

UNIT SHUTDOWNS/REDUCTIONS  
(UNIT 1)

\*\*\*\*\*  
\* BYRON \*  
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No.	Date	Type	Hours	Reason	Method	LER Number	System	Component	Cause & Corrective Action to Prevent Recurrence
9.	12/18/87	N/A	--	A	5				Ramped down to add oil to RCP.

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\* Summary \*  
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TYPE	Reason	Method	System & Component
F-Forced	A-Equip Failure	1-Manual	Exhibit F & H
S-Sched	F-Admin	2-Manual Scram	Instructions for
	B-Maint or Test	3-Auto Scram	Preparation of
	G-Oper Error	4-Continued	Data Entry Sheet
	C-Refueling	5-Reduced Load	Licensee Event Report
	H-Other	9-Other	(LER) File (NUREG-0161)
	D-Regulatory Restriction		
	E-Operator Training		
	& License Examination		

E. UNIQUE REPORTING REQUIREMENTS (UNIT 1) for the month of December 1987

1. Safety/Relief valve operations for Unit One.

<u>DATE</u>	<u>VALVES ACTUATED</u>	<u>NO &amp; TYPE ACTUATION</u>	<u>PLANT CONDITION</u>	<u>DESCRIPTION OF EVENT</u>
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None

2. Licensee generated charges to ODCM. (Y/N)

No

3. Indications of failed fuel. (Y/N)

Yes.  $I_{131} \approx 2.0 \text{ E-3 } \mu\text{curies/gram}$

F. LICENSEE EVENT REPORTS (UNIT 1)

The following is a tabular summary of all Licensee Event Reports for Byron Nuclear Power Station, Unit One, submitted during the reporting period, December 1 through December 31, 1987. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10CFR 50.73.

<u>Licensee Event Report Number</u>	<u>Occurrence Date</u>	<u>Title of Occurrence</u>
None		

II. Monthly Report for Byron Unit 2 for the month of December 1987

A. Summary of Operating Experience for Unit 2

The unit began this reporting period in Mode 5 (Cold Shutdown). Mode 4 (Hot Shutdown) was entered at 1305 on 12/15/87. On 12/19/87 at 1658 Mode 3 (Hot Standby) was entered. The reactor was taken critical at 1354 on 12/21/87. The unit was synchronized to the grid at 0233 on 12/22/87. The unit operated at power levels of up to 88% until 12/30/87 when a power reduction to 28% was begun because of steam generator chemistry concerns. The unit operated at approximately 28% for the rest of the reporting period.



B. OPERATING DATA REPORT

DOCKET NO.: 050-455  
 UNIT: Byron Two  
 DATE: 01/10/88  
 COMPILED BY: D. J. Spitzer  
 TELEPHONE: (815)234-5441  
 x2023

OPERATING STATUS

1. Reporting Period: December 1987. Gross Hours: 744

2. Currently Authorized Power Level (MWt): 3411  
 Design Electrical Rating: 1175 (MWe-gross)  
 Design Electrical Rating: 1120 (MWe-net)  
 Max Dependable Capacity (MWe-net): NOT DETERMINED

3. Power Level to Which Restricted (If Any): 1055 (MWe-net)

4. Reasons for Restriction (If Any): Steam Generator Split Flow. (65 MW)

	THIS MONTH	YR TO DATE	CUMULATIVE*
5. Report Period Hrs.	744	3193	3193
6. Rx Critical Hours	250.1	2329.2	2329.2
7. Rx Reserve Shutdown Hours	0	0	0
8. Hours Generator on Line	237.4	2280.4	2280.4
9. Unit Reserve Shutdown Hours	0	0	0
10. Gross Thermal Energy (MWH)	347977	6472163.4	6472103.4
11. Gross Elec. Energy (MWH)	108548	2104311	2104311
12. Net Elec. Energy (MWH)	91060	1970901	1970901
13. Reactor Service Factor	33.6	72.9	72.9
14. Reactor Availability Factor	33.6	72.9	72.9
15. Unit Service Factor	31.9	71.4	71.4
16. Unit Availability Factor	31.9	71.4	71.4
17. Unit Capacity Factor (MDC net)	N/A	N/A	N/A
18. Unit Capacity Factor (DER net)	10.9	55.1	55.1
19. Unit Forced Outage Hrs.	0	288	288
20. Unit Forced Outage Rate	0	11.2	11.2
21. Shutdowns Scheduled Over Next 6 Months:			
22. If Shutdown at End of Report Period, Estimated Date of Startup:			
23. Units in Test Status (Prior to Commercial Operation):			None

\*Note - The cumulative numbers do not reflect power generated prior to commercial service.

C. AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 050-455  
UNIT: Byron Two  
DATE: 01/10/88  
COMPILED BY: D. J. Spitzer  
TELEPHONE: (815)234-5441  
x2023

MONTH: December, 1987

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	
1.	0 MW	16. 0 MW
2.	0 MW	17. 0 MW
3.	0 MW	18. 0 MW
4.	0 MW	19. 0 MW
5.	0 MW	20. 0 MW
6.	0 MW	21. 0 MW
7.	0 MW	22. 206 MW
	0 MW	23. 277 MW
9.	0 MW	24. 230 MW
10.	0 MW	25. 343 MW
11.	0 MW	26. 340 MW
12.	0 MW	27. 570 MW
13.	0 MW	28. 667 MW
14.	0 MW	29. 901 MW
15.	0 MW	30. 317 MW
		31. 248 MW

INSTRUCTIONS

On this form list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt. These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line.) In such cases the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

(0625M/0062M-11)

Report Period December, 1987

UNIT SHUTDOWNS/REDUCTIONS  
(UNIT 2)

\*\*\*\*\*  
\* BYRON \*  
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No.	Date	Type	Hours	Reason	Method	LER Number	System	Component	Cause & Corrective Action to Prevent Recurrence
7.	12/22/87	S	506.5	H	4				Unit 2 Surveillance Outage Ends.
8.	12/30/87	F	48	H	5				Steam Generator Cation Conductivity

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\* Summary \*  
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TYPE	Reason	Method	System & Component
F-Forced	A-Equip Failure	1-Manual	Exhibit F & H
S-Sched	F-Admin	2-Manual Scram	Instructions for
	B-Maint or Test	3-Auto Scram	Preparation of
	C-Refueling	4-Continued	Data Entry Sheet
	H-Other	5-Reduced Load	Licensee Event Report
	D-Regulatory Restriction	9-Other	(LER) File (NUREG-0161)
	E-Operator Training & License Examination		

(0625M/0062M-12)

E. UNIQUE REPORTING REQUIREMENTS (UNIT 2) for the month of December 1987

1. Safety/Relief valve operations for Unit Two.

<u>DATE</u>	<u>VALVES ACTUATED</u>	<u>NO &amp; TYPE ACTUATION</u>	<u>PLANT CONDITION</u>	<u>DESCRIPTION OF EVENT</u>
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None

2. Licensee generated changes to ODCM. (Y/N)

No

3. Indications of failed fuel. (Y/N)

Yes.  $I_{131} = 2.0E-2$   $\mu$ curies/gram

F. LICENSEE EVENT REPORTS (UNIT 2)

The following is a tabular summary of all Licensee Event Reports for Byron Nuclear Power Station, Unit Two, submitted during the reporting period, December 1 through December 31, 1987. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10CFR 50.73.

<u>Licensee Event Report Number</u>	<u>Occurrence Date</u>	<u>Title of Occurrence</u>
87-020-00	12/02/87	Unanticipated Water Discharge Into the RCS From the Safety Injection Accumulators Due to a Procedural Inadequacy

January 10, 1988

LTR: BYRON 88-0011  
File: 2.7.200

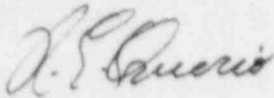
Director, Office of Management Information  
and Program Control  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

ATTN: Document Control Desk

Gentlemen:

Enclosed for your information is the Monthly Performance Report covering Byron  
Nuclear Power Station for the period December 1 through December 31, 1987.

Very truly yours,



R. E. Querio  
Station Manager  
Byron Nuclear Power Station

REQ/DJS/bb

cc: A.B. Davis, NRC, Region III  
NRC Resident Inspector Byron  
Gary Wright, Ill. Dept. of Nuclear Safety  
T.J. Maiman/K.L. Graesser  
L.D. Butterfield  
Nuclear Fuel Services, PWR Plant Support  
L. Anastasia, Station Nuclear Engineering  
INPO Records Center  
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