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

I. Monthly Report for Byron UNIT 1 for the month of July 1990

A. Summary of Operating Experience for Unit 1

The unit begar this reporting period in Mode 1 (Power Operation) at approximately 99.3% power. The unit operated at power levels of up to 100% for the remainder of the month.

B. OPERATING DATA REPORT

DOCKET NO.: 050-454
UNIT: Byron One
DATE: 08/10/90
COMPILED BY: K. Orris
TELEPHONE: (815)234-5441 x2444

OPERATING STATUS

1. Reporting Period: July, 1990. Gross Hours: 744

2. Currently Authorized Power Level: 3411 (MWt)
Design Electrical Rating: 1175 (MWe-gross)
Design Electrical Rating: 1120 (MWe-net)
Max Dependable Capacity: 1105 (MWe-net)

3. Power Level to Which Restricted (If Any): N/A

4. Reasons for Restriction (If Any):

| | THIS MONTH | YR TO DATE | CUMULATIVE* |
|---|---|---|---|
| 5. Report Period Hrs. | 744 | 5,087 | 42,720 |
| 6. Rx Critical Hours | 744 | 3,534.2 | 34,074.2 |
| 7. Rx Reserve Shutdown Hours | 0 | 0 | 38 |
| 8. Hours Generator on Line | 744 | 3,460 | 33,554 |
| 9. Unit Reserve Shutdown Hours | 0 | 0 | 0 |
| 10. Gross Thermal Energy (MWH) | 2,309,888 | 10,424,551 | 101,684,991 |
| 11. Gross Elec. Energy (MWH) | 784,542 | 3,530,530 | 34,274,948 |
| 12. Net Elec. Energy (MWH) | 740,897 | 3,321,143 | 32,299,175 |
| 13. Reactor Service Factor | 100 | 69.5 | 79.8 |
| 14. Reactor Availability Factor | 100 | 69.5 | 79.9 |
| 15. Unit Service Factor | 100 | 68.0 | 78.5 |
| 16. Unit Availability Factor | 100 | 68.0 | 78.5 |
| 17. Unit Capacity Factor (MDC net) | 90.1 | 59.1 | 68.4 |
| 18. Unit Capacity Factor (DER net) | 88.9 | 58.3 | 67.5 |
| 19. Unit Forced Outage Hrs. | 0 | 138.0 | 1,195.0 |
| 20. Unit Forced Outage Rate | 0 | 3.8 | 3.5 |

21. Shutdowns Scheduled Over Next 6 Months: None

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.

(0625M/0062M/3)

C. AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 050-454
UNIT: Byron One
DATE: 08/10/90
COMPILED BY: K. Orris
TELEPHONE: (815)234-5441 x2444

MONTH: July, 1990

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|---|---|---|---|
| 1. | 1061 MW | 16. | 847 MW |
| 2. | 1090 MW | 17. | 818 MW |
| 3. | 1034 MW | 18. | 951 MW |
| 4. | 1054 MW | 19. | 1080 MW |
| 5. | 1070 MW | 20. | 1079 MW |
| 6. | 984 MW | 21. | 942 MW |
| 7. | 971 MW | 22. | 967 MW |
| 8. | 968 MW | 23. | 967 MW |
| 9. | 1082 MW | 24. | 1011 MW |
| 10. | 1076 MW | 25. | 971 MW |
| 11. | 1028 MW | 26. | 962 MW |
| 12. | 995 MW | 27. | 1077 MW |
| 13. | 1022 MW | 28. | 1010 MW |
| 14. | 1060 MW | 29. | 940 MW |
| 15. | 800 MW | 30. | 981 MW |
| | | 31. | 960 |

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/4)

Report Period July, 1990

UNIT SHUTDOWNS/REDUCTIONS
(UNIT 1)

**********
* BYRON *
**********

| No. | Date | Type | Hours | [illegible] | [illegible] | LER [illegible] | [illegible]er | System | Component | Cause & Corrective Action to Prevent Recurrence |
|---|---|---|---|---|---|---|---|---|---|---|
| 7. | 07/15/90 | - | 85:00 | | | | | | | Isolated the 1A waterbox to investigate and correct a tube leak. |

**********
* Summary *
**********

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

(0625M/0062M/5)

E. UNIQUE REPORTING REQUIREMENTS (UNIT 1) for the month of July 1990

1. Safety/Relief valve operations for Unit One.

| DATE | VALVES ACTUATED | NO & TYPE ACTUATION | PLANT CONDITION | DESCRIPTION OF EVENT |
|---|---|---|---|---|
| None | | | | |

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

Yes - Revision 0.A. to the ODCM, Chapter 11.

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

No Fuel Reliability Indicator: FRI = 1.3E-4 µCi/cc

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, July 1 through July 31, 1990. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10CFR 50.73.

| Licensee Event Report Number | Occurrence Date | Title of Occurrence |
|---|---|---|
| 90-007 | 6/12/90 | Main Steamline isolation system inoperable due to failure to test manual isolation handswitch. |
| 90-008 | 6/27/90 | Required plant shutdown due to elevated containment temperature. |

II. Monthly Report for Byron UNIT 2 for the month of July 1990

A. Summary of Operating Experience for Unit 2

The unit began this reporting period in Mode 1 (Power Operation) at approximately 78.2% power. On July 14 the unit was brought down to Mode 3 to repair a leak on the Process Sampling System. The unit entered Mode 2 at 1043 on July 17, and went critical at 1118 that same day. The unit is in coastdown in preparation for its refueling outage scheduled for September.

B. OPERATING DATA REPORT

DOCKET NO.: 050-455
UNIT: Byron Two
DATE: 08/10/90
COMPILED BY: K. Orris
TELEPHONE: (815)234-5441 x2444

OPERATING STATUS

1. Reporting Period: July, 1990. Gross Hours: 744

2. Currently Authorized Power Level: 3411 (MWt)
Design Electrical Rating: 1175 (MWe-gross)
Design Electrical Rating: 1120 (MWe-net)
Max Dependable Capacity: 1105 (MWe-net)

3. Power Level to Which Restricted (If Any): N/A

4. Reasons for Restriction (If Any):

| | THIS MONTH | YR TO DATE | CUMULATIVE* |
|---|---|---|---|
| 5. Report Period Hrs. | 744 | 5,087 | 25,824 |
| 6. Rx Critical Hours | 662.3 | 4,938.3 | 23,003.3 |
| 7. Rx Reserve Shutdown Hours | 0 | 0 | 0 |
| 8. Hours Generator on Line | 657.5 | 4,925.5 | 22,610.5 |
| 9. Unit Reserve Shutdown Hours | 0 | 0 | 0 |
| 10. Gross Thermal Energy (MWH) | 1,509,466 | 14,903,597 | 60,471,206 |
| 11. Gross Elec. Energy (MWH) | 510,759 | 5,120,508 | 20,465,308 |
| 12. Net Elec. Energy (MWH) | 476,546 | 4,850,524 | 19,240,660 |
| 13. Reactor Service Factor | 89.0 | 97.1 | 89.1 |
| 14. Reactor Availability Factor | 89.0 | 97.1 | 89.1 |
| 15. Unit Service Factor | 88.4 | 96.8 | 87.6 |
| 16. Unit Availability Factor | 88.4 | 96.8 | 87.6 |
| 17. Unit Capacity Factor (MDC net) | 58.0 | 86.3 | 67.4 |
| 18. Unit Capacity Factor (DER net) | 57.2 | 85.1 | 66.5 |
| 19. Unit Forced Outage Hrs. | 0 | 26 | 845 |
| 20. Unit Forced Outage Rate | 0 | 0.5 | 3.6 |

21. Shutdowns Scheduled Over Next 6 Months: 1 - September

22. If Shutdown at End of Report Period, Estimated Date of Startup: N/A

23. Units in Test Status (Prior to Commercial Operation): None

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

(0625M/0062M/9)

C. AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.: 050-455
UNIT: Byron Two
DATE: 08/10/90
COMPILED BY: K. Orris
TELEPHONE: (815)234-5441 x2444

MONTH: June, 1990

| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
|---|---|---|---|
| 1. | 831 MW | 16. | -15 MW |
| 2. | 820 MW | 17. | 82 MW |
| 3. | 816 MW | 18. | 590 MW |
| 4. | 799 MW | 19. | 727 MW |
| 5. | 802 MW | 20. | 738 MW |
| 6. | 800 MW | 21. | 740 MW |
| 7. | 795 MW | 22. | 742 MW |
| 8. | 779 MW | 23. | 731 MW |
| 9. | 781 MW | 24. | 724 MW |
| 10. | 767 MW | 25. | 700 MW |
| 11. | 763 MW | 26. | 681 MW |
| 12. | 760 MW | 27. | 647 MW |
| 13. | 706 MW | 28. | 642 MW |
| 14. | -10 MW | 29. | 642 MW |
| 15. | -15 MW | 30. | 644 MW |
| | | 31. | 635 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/10)

Report Period June, 1990

UNIT SHUTDOWNS/REDUCTIONS
(UNIT 2)

**********
* BYRON *
**********

| No. | Date | Type | Hours | Reason | Method | LER Number | System | Component | Cause & Corrective Action to Prevent Recurrence |
|---|---|---|---|---|---|---|---|---|---|
| 6. | 7/14/90 | S | 86:32 | A | 1 | | RC | | Unit was shutdown to repair Process Sampling system leaks. |

**********
* Summary *
**********

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

(0625M/0062M/11)

E. UNIQUE REPORTING REQUIREMENTS (UNIT 2) for the month of July 1990

1. Safety/Relief valve operations for Unit Two.

| DATE | VALVES ACTUATED | NO & TYPE ACTUATION | PLANT CONDITION | DESCRIPTION OF EVENT |
|---|---|---|---|---|
| None | | | | |

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

Yes. Revision O.A. to the ODCM, Chapter 11.

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

Yes. Approximately two to five leaking fuel pins.
Fuel Reliability Indicator = 3.0E-3 µCi/cc

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, July 1 through July 31, 1990. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10CFR 50.73.

| Licensee Event Report Number | Occurrence Date | Title of Occurrence |
|---|---|---|
| NONE | | |