



Commonwealth Edison
Braidwood Nuclear Power Station
Route #1, Box 84
Braceville, Illinois 60407
Telephone 815/458-2801

July 10, 1991
BW/91-0586


Director, Office of Resource Management
United States Nuclear Regulatory Commission
Washington, D.C. 20555

ATTN: Document Control Desk

Gentlemen:

Enclosed for your information is the Monthly Performance Report covering Braidwood Nuclear Power Station for the period June 1 through June 30, 1991.

Very truly yours,


K. L. Kofron
Station Manager
Braidwood Nuclear Station

KLK/EWC/clf
(227/ZD85G)

Attachments

cc: A. B. Davis, NRC, Region III
NRC Resident Inspector Braidwood
Ill. Dept. of Nuclear Safety
M. J. Wallace
K. L. Graesser
T. J. Kovach
Nuclear Fuel Services, PWR Plant Support
INPO Records Center
Performance Monitoring Group, Tech Staff Braidwood Station
Nuclear Group, Tech Staff Braidwood Station
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BRAIDWOOD NUCLEAR POWER STATION

UNIT 1 AND UNIT 2

MONTHLY PERFORMANCE REPORT

COMMONWEALTH EDISON COMPANY

NRC DOCKET NO. 050-456, LICENSE NO. NPF-72

NRC DOCKET NO. 050-457, LICENSE NO. NPF-77

I. Monthly Report for Braidwood Unit 1

A. Summary of Operating Experience

Braidwood Unit 1 operated routinely from June 1 through June 18, 1991 when the unit reduced power to inspect a condenser water box for tube leaks. After completion of repairs on June 20, 1991 the unit returned to normal operation until June 22, 1991 when power was again reduced to inspect and repair tubes in another condenser water box. The unit returned to full power on June 24, 1991 and operated routinely for the remainder of the month.

B. OPERATING DATA REPORT

DOCKET NO.: 50-456
 UNIT: Braidwood 1
 DATE: 07/10/91
 COMPILED BY: C. E. Pershey
 TELEPHONE: (815)458-2801
 ext. 2173

OPERATING STATUS

1. Reporting Period: June, 1991 Gross Hours: 720
2. Currently Authorized Power Level (MWt): 3411
 Design Electrical Rating (MWe-gross): 1175
 Design Electrical Rating (MWe-net): 1120
 Max Dependable Capacity (MWe-gross): 1175
 Max Dependable Capacity (MWe-net): 1120
3. Power level to which restricted (If Any): None
4. Reasons for restriction (If Any): None

	<u>THIS MONTH</u>	<u>YR TO DATE</u>	<u>CUMULATIVE</u>
5. Report period Hours:	720.0	4343	25592
6. Hours Reactor Critical:	720.0	1073.1	18000.4
7. RX Reserve Shutdown Hours:	0.0	0.0	0.0
8. Hours Generator on Line:	720.0	1040.9	17671.8
9. Unit Reserve Shutdown Hours:	0.0	0.0	0.0
10. Gross Thermal Energy (MWH):	2237555	2773396	52426466
11. Gross Elec. Energy (MWH):	766498	941340	18021981
12. Net Elec. Energy (MWH):	736434	850734	17172440
13. Reactor Service Factor:	100.0	24.7	70.3
14. Reactor Availability Factor:	100.0	24.7	70.3
15. Unit Service Factor:	100.0	24.0	69.1
16. Unit Availability Factor:	100.0	24.0	69.1
17. Unit Capacity Factor (MDC net):	91.3	17.5	59.9
18. Unit Capacity Factor (DER net):	91.3	17.5	59.9
19. Unit Forced Outage Rate:	0.0	57.6	14.1
20. Unit Forced Outage Hours:	0.0	1416.0	2895.0
21. Shutdowns Scheduled Over Next 6 Months:	None		
22. If Shutdown at End of Report Period, Estimated Date of Startup:			

C. AVERAGE DAILY UNIT NET POWER LEVEL LOG

DOCKET NO.: 50-456

UNIT: Braidwood 1

DATE: 07/10/91

COMPILED BY: C. E. Pershey

TELEPHONE: (815)458-2801
ext. 2173

MONTH: June, 1991

1. 1033	17. 1014
2. 1085	18. 976
3. 1084	19. 750
4. 1091	20. 776
5. 1095	21. 1035
6. 1094	22. 780
7. 1080	23. 776
8. 1018	24. 1026
9. 1016	25. 1067
10. 1051	26. 1050
11. 1090	27. 1090
12. 1103	28. 1045
13. 1111	29. 1056
14. 1112	30. 1043
15. 1057	
16. 1068	

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.

D. UNIT SHUTDOWNS/REDUCTIONS

DOCKET NO.: 50-456
UNIT: Braidwood 1
DATE: 07/10/91
COMPILED BY: C. E. Pershey
TELEPHONE: (815)458-2801
ext. 2173

REPORT PERIOD: June, 1991

No	DATE	TYPE	HOURS	REASON	METHOD	LER NUMBER	SYSTEM	COMPONENT	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
2	910618	F	50	B	5	N/A	KE	COND	Power reduction to inspect condenser water box for tube leaks. Leaks were identified and tubes plugged.
3	910622	F	52	B	5	N/A	KE	COND	Power reduction to inspect condenser water box for tube leaks. Leaks were identified and tubes plugged.

* S U M M A R Y *

TYPE	REASON	METHOD	SYSTEM & COMPONENT
F-Forced	A-Equipment Failure Maint or Test	1 - Manual	Exhibit F & H
S-Scheduled	B-Maint or Test	2 - Manual Scram	Instructions for Preparation of
	C-Refueling	3 - Auto Scram	Data Entry Sheet
	D-Regulatory Restriction	4 - Continued	Licensee Event Report
	E-Operator Training & License Examination	5 - Reduced Load	(LER) File (NUREG-0161)
	F-Administration	9 - Other	
	G-Oper Error		
	H-Other		

E. UNIQUE REPORTING REQUIREMENTS - Unit 1

1. Safety/Relief valve operations.

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

2. Licensee generated changes to ODCM.

See Attachment

F. LICENSEE EVENT REPORTS - UNIT 1

The following is a tabular summary of all Licensee Event Reports submitted during the reporting period, June 1 through June 30, 1991. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10 CFR 50.73.

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

I. Monthly Report for Braidwood Unit 2

A. Summary of Operating Experience

Braidwood Unit 2 operated routinely from June 1 through June 22, 1991 when the unit reduced power to remove the generator from service for repairs to the turbine Electrohydraulic Control System. The reactor remained critical during this time. Following repairs, the generator was returned to service and the unit performed routinely the remainder of the month.

B. OPERATING DATA REPORT

DOCKET NO.: 50-457
UNIT: Braidwood 2
DATE: 07/10/91
COMPILED BY: C. E. Pershey
TELEPHONE: (815)458-2801
ext. 2173

OPERATING STATUS

1. Reporting Period: June, 1991 Gross Hours: 720

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

3. Power level to which restricted (If Any): None

4. Reasons for restriction (If Any): None

	THIS MONTH	YR TO DATE	CUMULATIVE
5. Report period Hours:	720.0	4343.0	23674
6. Hours Reactor Critical:	720.0	4146.6	20186.1
7. RX Reserve Shutdown Hours:	0.0	0.0	0.0
8. Hours Generator on Line:	715.1	4131.5	20042.7
9. Unit Reserve Shutdown Hours:	0.0	0.0	0.0
10. Gross Thermal Energy (MWH):	2225330	13260686	58570714
11. Gross Elec. Energy (MWH):	742923	4534967	20069740
12. Net Elec. Energy (MWH):	713372	4375222	19202702
13. Reactor Service Factor:	100.0	95.5	85.3
14. Reactor Availability Factor:	100.0	95.5	85.3
15. Unit Service Factor:	99.3	95.1	84.7
16. Unit Availability Factor:	99.3	95.1	84.7
17. Unit Capacity Factor (MDC net):	88.5	89.9	72.4
18. Unit Capacity Factor (DER net):	88.5	89.9	72.4
19. Unit Forced Outage Rate:	0.7	4.9	4.0
20. Unit Forced Outage Hours:	4.9	211.5	825.1
21. Shutdowns Scheduled Over Next 6 Months:	September 1991 - Refuel Outage		
22. If Shutdown at End of Report Period, Estimated Date of Startup:			

C. AVERAGE DAILY UNIT NET POWER LEVEL LOG

DOCKET NO.: 50-457

UNIT: Braidwood 2

DATE: 07/10/91

COMPILED BY: C. E. Pershey

TELEPHONE: (815)458-2801
ext. 2173

MONTH: June, 1991

1. 1092	17. 995
2. 980	18. 1043
3. 1020	19. 1051
4. 1029	20. 1023
5. 1030	21. 1006
6. 1012	22. 310
7. 1092	23. 403
8. 1079	24. 701
9. 1091	25. 1023
10. 1093	26. 1090
11. 1072	27. 1080
12. 1036	28. 1098
13. 1002	29. 1095
14. 1081	30. 1091
15. 1042	
16. 950	

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.

D. UNIT SHUTDOWNS/REDUCTIONS

DOCKET NO.: 50-457

UNIT: Braidwood 2

DATE: 07/10/91

COMPILED BY: C. E. Pershey

TELEPHONE: (815)458-2801

ex.. 2173

REPORT PERIOD: June, 1991

No	DATE	TYPE	HOURS	REASON	METHOD	LER NUMBER	SYSTEM	COMPONENT	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
5	910622	F	4.9	A	1	N/A	JJ	SEAL	A power reduction along with the turbine being taken off line occurred to perform maintenance on a degrading 'O' ring on the Electrohydraulic Control System. The 'O' ring was replaced.

* S U M M A R Y *

TYPE	REASON	METHOD	SYSTEM & COMPONENT
F-Forced	A-Equipment Failure Maint or Test	1 - Manual	Exhibit F & H
S-Scheduled	B-Maint or Test	2 - Manual Scram	Instructions for Preparation of
	C-Refueling	3 - Auto Scram	Data Entry Sheet
	D-Regulatory Restriction	4 - Continued	Licensee Event Report
	E-Operator Training & License Examination	5 - Reduced Load	(LER) File (NUREG-0161)
	F-Administration	9 - Other	
	G-Oper Error		
	H-Other		

E. UNIQUE REPORTING REQUIREMENTS - UNIT 2

1. Safety/Relief valve operations.

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

2. Licensee generated changes to ODCM.

See Attached.

F. LICENSEE EVENT REPORTS - UNIT 2

The following is a tabular summary of all Licensee Event Reports submitted during the reporting period, June 1 through June 30, 1991. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10 CFR 50.73.

<u>Licensee Event Report Number</u>	<u>Report Date</u>	<u>Title of Occurrence</u>
91-002	06-07-91	Reactor shutdown caused by excessive containment purge valve leakage discovered during local leak rate testing.

ATTACHMENT

Revision to the Offsite Dose Calculation Manual (ODCM)

Revisions to the Offsite Dose Calculation Manual (ODCM) are reportable to the NRC in accordance with Braidwood Station's Technical Specifications.

Braidwood Station's Radiological Environmental Monitoring Program (REMP) has been updated to identify a new surface water sampling location, sample point BD-25, Kankakee River upstream of discharge, 9.6 mi E of the station. This sample point was added to eliminate the possibility of the upstream sample being influenced by Braidwood Station discharge water.

The change does not reduce the accuracy and reliability of the setpoint determination or model methodology.

Braidwood On-site Review and Investigation Report

OSR Number: 91-054 Date: 4/29/91
Subject Review: Braidwood Station OSHA Article 191.00

Requested by: Kim Alshive

Disciplines Required: ☒ A Nuclear Power Plant Technology
☒ B Reactor Operations
☐ C Reactor Engineering
☐ D Chemistry
☒ E Radiation Protection
☐ F Instrumentation and Control
☐ G Mechanical and Electrical Systems

Participants: TSS
HPS

OSR Membership Approved Jack E. Maloney 4-30-91
Technical Staff Supervisor / Date

10CFR50.59 Screening and/or Safety Evaluation is Required? - - - Y/N Y
If yes, attach completed documentation in accordance with BWAP 1205-6.

Concurrence Required by Offsite Review? (per Section C.6) - - - Y/N Y

Findings and Recommendations:

Corrected a typographical error.
Added sample location BD-25. This provides a consistent
sample point for an upstream surface water sample
Recommended approval. Jack E. Maloney

On-site Review Committee: Signature indicates concurrence with Findings and Recommendations and 10CFR50.59 Safety Evaluation.

Signatures	Discipline(s)	Date
<u>Jack E. Maloney</u>	<u>ABGM</u>	<u>4-30-91</u>
<u>Kim Alshive</u>	<u>E</u>	<u>4-30-91</u>

Approved by: [Signature] 5/1/91 APPROVED
STATION MANAGER DATE

MAR 11 1991

(Final)

MAR 25 1991

CORRECTED

Table 11-1 (Cont'd)

<u>Exposure Pathway and/or Sample</u>	<u>Sampling or Monitoring Locations^a</u>	<u>Sampling or Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
2. <u>Direct Radiation</u> (Cont'd)	<u>Controls</u> Two sets of TLDs at each of the air- borne pathway control locations specified in Part 1 of this table. Minimum of 2 TLDs per set.		
3. <u>Waterborne^e</u>			
a. <u>Public Water</u>	BD-22, Wilmington, 5.0 mi NNE (8.0 km B)	Weekly	Gross beta and gamma isotopic analyses monthly composite. Tritium analysis on quarterly composite.
b. <u>Surface</u>	BD-07, Kankakee River upstream of discharge, 5.4 mi E (8.4 km E) BD-10, Kankakee River downstream of discharge, 5.0 mi ENE (8.0 km D) BD-25, Kankakee River upstream of discharge, 9.6 mi E (15.4 km E)	Weekly	Gamma isotopic analysis on monthly composite from each location. Tritium analysis on quarterly composite from each location.
c. <u>Ground/Well</u>	BD-13, Braidwood City Hall Well, 1.7 mi NNE (2.7 km B)	Biweekly ^f	Gross beta and gamma isotopic analysis on monthly composite. Tritium analysis on quarterly composite. I-131 analysis biweekly when the dose calculated for consumption is greater than 1 mrem/yr.