CENTERIOR ENERGY

PERRY NUCLEAR POWER PLANT
10 CENTER ROAD
PERRY, OHIO 44081
(216) 259-3737

Mail Address:
P.O. BOX 97
PERRY, OHIO 44081

Michael D. Lyster
VICE PRESIDENT - NUCLEAR

February 15, 1991
PY-CEI/NRR-1309 L

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

Perry Nuclear Power Plant
Docket No. 50-440
Monthly Operating Report

Dear Sir:

Attached is the January 1991 Monthly Operating Report for Perry Uni This report is submitted in accordance with Technical Specification 6.9.1.b.

If there are any questions, please feel free to call.

Sincerely,

Frank R Stead for
Michael D. Lyster

MDL:DWC:njc

Attachment

cc: NRR Project Manager
USNRC Senior Resident Inspector - Perry
USNRC, Region III
Director, Office of Resource Management
Ohio EPA

CLEVELAND ELECTRIC ILLUMINATING COMPANY

PERRY NUCLEAR POWER PLANT

January 1, 1991 - January 31, 1991

MONTHLY OPERATING REPORT TO NRC

DOCKET NUMBER : 50-440

LICENSE NUMBER: NPF-58

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Average Daily Unit Power Level

DOCKET NO.	50-440
UNIT	Perry-1
DATE	2/15/91
Contact	H.L. Hegrat
Telephone	(216)259-3737

MONTH January 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	1194
2	0	18	1196
3	0	19	1195
4	36	20	1041
5	252	21	1082
6	391	22	1196
7	811	23	1193
8	1170	24	1091
9	1184	25	1194
10	1187	26	1195
11	1191	27	1168
12	1194	28	1197
13	1162	29	1197
14	1193	30	1196
15	1192	31	1195
16	1191		

Operating Data Report

UNIT: PERRY-1
DATE: 2/15/91

OPERATING STATUS

1. Docket: 50-440
2. Reporting Period: January 1991
3. Utility Contact: H.L. Hegrat (216) 259-3737
4. Licensed Thermal Power (MWt): 3579
5. Nameplate Rating (Gross MWe): 1250
6. Design Electrical Rating (Net MWe): 1191
7. Maximum Dependable Capacity (Gross MWe): 1225
8. Maximum Dependable Capacity (Net MWe): 1166
9. If changes occur in capacity ratings (Item Numbers 4 through 8) since last report, give reasons:
   Reflects a change based on baseline testing.
10. Power Level To Which Restricted, If Any (Net MWe): N/A
11. Reasons for Restrictions, If Any: Operating License Limit

	This Month	Yr-to-Date	Cumulative
12. Hours In Reporting Period	744.0	744.0	28,092.0
13. Hours Reactor Was Critical	706.2	706.2	19,334.1
14. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
15. Hours Generator On-Line	659.8	659.8	18,602.4
16. Unit Reserve Shutdown Hours	0.0	0.0	0.0
17. Gross Thermal Energy (MWH)	2,152,912	2,152,912	63,322,710
18. Gross Electrical Energy (MWH)	747,292	747,292	21,831,706
19. Net Electrical Energy (MWH)	710,573	710,573	20,686,659
20. Unit Service Factor	88.7%	88.7%	64.5%
21. Unit Availability Factor	88.7%	88.7%	66.2%
22. Unit Capacity Factor (Using MDC Net)	81.9%	81.9%	63.2%
23. Unit Capacity Factor (Using DER Net)	80.2%	80.2%	61.8%
24. Unit Forced Outage Rate	0.0%	0.0%	7.7%
25. Forced Outage Hours	0.0	0.0	1,558.9

26. Shutdowns Scheduled Over Next 6 Months (Type, Date and Duration of Each):
    None
27. If Shut Down at end of Report Period, Estimated Date of Startup:
    N/A

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH January 1991

DOCKET NO. 50-440
UNIT NAME Perry - 1
DATE February 15, 1991
CONTACT H.L. Hegrat
TELEPHONE (216) 259-3737

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
90-09	09-07-90	S	84.2	C	4	N/A	N/A	N/A	Refueling Outage, continued from previous month.

SUMMARY: Reactor startup commenced on December 27, 1990, and the generator was synchronized to the grid on January 4, 1991. Perry-1 subsequently achieved and maintained full power operating levels for the remainder of the month.

[1] F: Forced
S: Scheduled

[2] Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

[3] Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continued
5-Reduced Load
9-Other

[4] Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG 1022)

[5] Exhibit 1-Same Source

DOCUMENT TRANSMITTAL FORM 45266
FOR DOCUMENTS TRANSMITTED TO (I N P O) *

DATE: 21 JAN 1991
BATCH: 100

DOCUMENT NUMBER	SHEET NUMBER	REVISION NUMBER	COPY NUMBER
AP 770		14	10

INSTRUCTIONS TO THE ADDRESSEE

COMPLETE EACH OF THE INSTRUCTIONS BELOW WHICH ARE MARKED WITH AN " X "

_X_ (1) VERIFY THE DOCUMENTS RECEIVED AGREE WITH THE ABOVE DESCRIPTION
_X_ (2) INCORPORATE THE TRANSMITTED DOCUMENTS INTO YOUR FILES
_X_ (3) DESTROY DOCUMENTS OR PORTIONS OF DOCUMENTS SUPERSEDED BY THE ABOVE
_X_ (4) SIGN AND DATE IN THE SPACES BELOW INDICATING THAT YOU COMPLETED THESE INSTRUCTIONS.
___ (5) SIGN BELOW INDICATING THAT YOU HAVE READ AND UNDERSTOOD THE CHANGES AS IDENTIFIED
_X_ (6) RETURN TO DOCUMENT CONTROL, CRYSTAL RIVER UNIT 3, MAC# NA1C___ NR2A_X_ FLA. POWER CORP., P.O. BOX 219 CRYSTAL RIVER FLA. 32623

SIGNATURE OF ADDRESSEE _____ DATE _____

INDEPENDENT VERIFICATION _____ DATE _____ (OPS)

A045
1/1

EMERGENCY DIESEL GENERATOR ACTUATION

1.0 ENTRY CONDITIONS

IF 4160V ES Bus undervoltage occurs,

THEN use this procedure.

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2.0 IMMEDIATE ACTIONS

ACTIONS	DETAILS
2.1 Ensure EDGs start and energize the affected bus.	
IF NOT energized, THEN:	
1. Ensure all feeder Bkrs to affected bus are open.	
2. Close feeder Bkr from Unit 3 Startup Transformer by holding in "CLOSE" position for ≈ 10 sec.	Close: o Bkr 3205, 3A 4160V ES Bus o Bkr 3206, 3B 4160V ES Bus

Table 1: EDG Rating.

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

3.0 FOLLOW-UP ACTIONS

	ACTIONS	DETAILS
3.1	___ Notify SOTA, if available, of plant condition.	
3.2	___ CONCURRENTLY PERFORM VP-580, Plant Safety Verification Procedure, beginning with Step 1.1.	
3.3	___ IF EDG energizes the bus and then trips, THEN reset the "4160V ES BUS ES/UV BLOCK LOCK OUT" AND energize the bus.	Refer to OP-703, Plant Distribution System, Section 4.22.
3.4	___ IF ES 480V undervoltage lockout has actuated, THEN reset ES 480V lockout.	1. ___ Bypass or Reset ES actuation. 2. ___ Reset ES 480V lockouts located behind the MCB.
3.5	___ IF 1 ES 480V bus is NOT energized, THEN transfer ES-MCC-3AB to energized ES 480V bus.	1. ___ Ensure EDG has enough capacity to supply desired loads, if operating, see Tables 1, 2, and 3. 2. ___ Depress transfer push-buttons for the ES-MCC-3AB to the energized ES 480V Bus.

Table 1: EDG Rating

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

Table 3: ES 480V Loads and Ratings

LOADS	KW
ES-MCC-3AB With AHF-1C	91
"A" or "B" Heat Tracing	41
EFIC Room Fans	13
AHF-19A or 19B	17
AHF-17A/B or AHF-18A/B	50
Chilled Water Pumps	17
Chiller	193
Spent Fuel Pumps	41

ACTIONS	DETAILS
3.6 ___ IF MUP restart is required, THEN start MUP, AND establish RCP seal injection.	1. ___ Close MUV-16, Seal Injection Control Valve. 2. ___ Establish MUP cooling. 3. ___ Start ES selected MUP. 4. ___ Ensure MUV-18 is open, Seal Injection Block Valve. 5. ___ Throttle Open, MUV-16, to obtain 2 gpm/RCP. 6. ___ Throttle Open, MUV-16, over a 30 min period, to establish ≈ 10 gpm/RCP.
3.7 ___ IF SW Raw Water PRESS has NOT recovered, THEN start RWP-2A or RWP-2B	To start RWP-2B: 1. Select RWP-2B control switch to the "STOP" position to reset the anti-pump device. 2. Select RWP-2B control switch to the "START" position.

Table 1: EDG Rating

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

Table 3: ES 480V Loads and Ratings

LOADS	KW
ES-MCC-3AB With AHF-1C	91
"A" or "B" Heat Tracing	41
EFIC Room Fans	13
AHF-19A or 19B	17
AHF-17A/B or AHF-18A/B	50
Chilled Water Pumps	17
Chiller	193
Spent Fuel Pumps	41

	ACTIONS	DETAILS
3.8 ___	IF all of the following conditions are met: o PZR htrs are required, o [illegible]tr normal power [illegible]y is NOT available, o PZR heater MCC-3A is available, THEN ensure EDG-1A capacity for 126 KW load AND energize 1 htr group from 4160V ES Bus 3A.	o See Table 1 for EDG rating. o Perform Enclosure 1 to energize htr group.

Table 1: EDG Rating

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

Table 3: ES 480V Loads and Ratings

LOADS	KW
ES-MCC-3AB With AHF-1C	91
"A" or "B" Heat Tracing	41
EFIC Room Fans	13
AHF-19A or 19B	17
AHF-17A/B or AHF-18A/B	50
Chilled Water Pumps	17
Chiller	193
Spent Fuel Pumps	41

	ACTIONS	DETAILS
3.9	___ IF all of the following conditions are met: o PZR htrs are required, o PZR htr normal power supply is NOT available, o PZR heater MCC-3A is NOT available, THEN ensure EDG-1B capacity for 126 KW load AND energize 1 htr group from 4160V ES Bus 3B.	o See Table 1 for EDG rating. o Perform Enclosure 2 to energize htr group.

Table 1: EDG Rating

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

Table 3: ES 480V Loads and Ratings

LOADS	KW
ES-MCC-3AB With AHF-1C	91
"A" or "B" Heat Tracing	41
EFIC Room Fans	13
AHF-19A or 19B	17
AHF-17A/B or AHF-18A/B	50
Chilled Water Pumps	17
Chiller	193
Spent Fuel Pumps	41

	ACTIONS	DETAILS
3.10	___ IF an outside air compressor is available, THEN notify TB Operator to start SAP-1C or SAP-1D.	
3.11	___ IF SAP-1C and SAP-1D are NOT available, THEN start diesel air compressor, if available.	
3.12	___ IF all outside air compressors are NOT available, THEN establish IAP-1B cooling from SW system.	Refer to OP-408, Nuclear Services Cooling System, Section 4.6.
3.13	___ IF IAP-1B is required, AND 480V plant Aux Bus is energized, THEN energize Rx Aux Bus "B" AND start IAP-1B.	1. ___ Ensure EDG-1B capacity is available for 75 KW, see Table 1 for EDG rating. 2. ___ IF PZR heater MCC-3B is being used, THEN notify TB Operator to open all Bkrs on Rx Aux Bus B except Bkr 3356. IF NOT, THEN notify TB Operator to open all Bkrs on Rx Aux Bus B. 3. ___ Energize Rx Aux Bus 3B by closing Bkr 3396. 4. ___ Start IAP-1B.

Table 1: EDG Rating

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

Table 3: ES 480V Loads and Ratings

LOADS	KW
ES-MCC-3AR With AHF-1C	91
"A" or "B" Heat Tracing	41
EFIC Room Fans	13
AHF-19A or 19B	17
AHF-17A/B or AHF-18A/B	50
Chilled Water Pumps	17
Chiller	193
Spent Fuel Pumps	41

ACTIONS	DETAILS
3.14 ___ IF IAP-1B is required, AND 480V Plant Aux Bus is NOT energized, THEN energize Rx Aux Bus B, AND start IAP-1B.	1. ___ Ensure EDG-1B capacity is available for 75 KW, see Table 1 for EDG rating. . ___ Notify TB Operator to open all Bkrs on: o 480V Rx Aux Bus 3B, o 480V Plant Aux Bus. 3. ___ Energize Rx Aux Bus 3B by closing: 3.1 ___ Bkr 3222, 3.2 ___ Bkr 3312, 3.3 ___ Bkr 3392, 3.4 ___ Bkr 3396. 4. ___ Start IAP-1B.
3.15 ___ Start control complex ventilation.	1. ___ Ensure EDG has enough capacity to supply desired loads, see Tables 1, 2, and 3. 2. ___ Start normal control complex ventilation. Refer to OP-409, Plant Ventilation, Section 4.2. 3. ___ IF control complex chillers are NOT available, THEN refer to OP-409, Plant Ventilation, Section 4.3 for Appendix R chillers, OR refer to MP-193, Temporary Cooling to Control Complex.

Table 1: EDG Rating

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

Table 3: ES 480V Loads and Ratings

LOADS	KW
ES-MCC-3AB With AHF-1C	91
"A" or "B" Heat Tracing	41
EFIC Room Fans	13
AHF-19A or 19B	17
AHF-17A/B or AHF-18A/B	50
Chilled Water Pumps	17
Chiller	193
Spent Fuel Pumps	41

ACTIONS	DETAILS
3.16 IF EDG capacity exists AND heat tracing is desired, THEN RESTORE heat tracing.	1. ____ Ensure EDG has enough capacity to supply heat tracing loads, if operating, see Tables 1, 2, and 3. 2. ____ IF heat tracing is desired, THEN reset heat tracing at local panels near ES-MCC-3A2 ("A" Heat Tracing) and 95' Aux Building elevator ("B" Heat Tracing).

Table 1: EDG Rating

Time	Maximum Load Range in KW
30 min	> 3250 to ≤ 3500
200 hr	> 3000 to ≤ 3250
2000 hr	> 2850 to ≤ 3000
Continuous	≤ 2850 KW

Table 2: EDG Loads to Shed

LOADS	KW
EFP-1	528
SWP-1A or SWP-1B	486
RWP-2A or RWP-2B	538
AHF-1A or AHF-1B or AHF-1C	61

Table 3: ES 480V Loads and Ratings

LOADS	KW
ES-MCC-3AB With AHF-1C	91
"A" or "B" Heat Tracing	41
EFIC Room Fans	13
AHF-19A or 19B	17
AHF-17A/B or AHF-18A/B	50
Chilled Water Pumps	17
Chiller	193
Spent Fuel Pumps	41

ACTIONS	DETAILS

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CAUTION:

When operating an EDG in parallel with Unit 3 Startup Transformer, avoid unnecessary loading of the transformer in order to prevent voltage fluctuations which could cause tripping of the EDG output bkr and loss of bus voltage.

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Note

Plant should be in a stable condition prior to paralleling to EDG.

3.17 ___ WHEN alternate power is available to ES 4160V busses,
THEN sync in alternate power supply,
AND unload EDG.

1. ___ Ensure HPI is bypassed or reset.
2. ___ Depress the "4160V ESA or B UV RESET" pushbutton.
3. ___ Select EDG speed droop to 60.
4. ___ Select EDG Unit Parallel switch to "PARALLEL".
5. ___ Select syncscope for Bkr to be paralleled to "ON"
6. ___ Select "EXC VOLT ADJ SELECT" switch to "CONT RM".
7. ___ Match voltages using "EXC VOLT ADJ DIESEL GEN".
8. ___ Adjust Gen speed to establish syncscope moving slowly in the "SLOW" direction, counter-clockwise.
9. ___ Close oncoming Bkr at ≈ 1 o'clock.
10. ___ Refer to SP-354A or B, EDG Monthly test, to stop EDG.

Enclosure 1

Energizing PZR Htrs From 4160V ES Bus A

1. ____ Ensure 480V Rx Aux Bus 3A feeder Bkrs are open.

   Ensure open:

   o 3305
   o 3395

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2. ____ Notify TB Operator to ensure open all Bkrs on:

   ____ 480V Rx Aux Bus 3A
   ____ PZR htr MCC-3A

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3. ____ Energize Rx Aux Bus 3A.

   Close the following Bkrs:

   o 3321
   o 3395

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4. ____ Notify TB Operator to close the following Bkrs:

   1. ____ 3355 on Rx Aux Bus 3A

   2. ____ Bkr-1A at PZR htr MCC-3A

   3. ____ Bkr-2A at PZR htr MCC-3A

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5. ____ Notify TB Operator to close 1 of the following Bkrs at PZR htr MCC-3A:

PZR htr Group	Bkr
7	1C
8	2C
9	3C

Enclosure 2

Energizing PZR Htrs From 4160V ES Bus B

1. ____ Ensure 480V Rx Aux Bus 3B feeder Bkrs are open.

   Ensure open:

   o 3306
   o 3396

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2. ____ Ensure 480V Plant Aux Bus feeder Bkrs are open.

   Ensure open:

   o 3312
   o 3392

---

3. ____ Ensure the following Bkrs are open:

   ____ 3393 on 480V Turbine Aux Bus 3A
   ____ 3394 on 480V Turbine Aux Bus 3B
   ____ 3399 on 480V Heating Aux Bus

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4. ____ Notify TB Operator to ensure open all Bkrs on:

   ____ 480V Plant Aux Bus
   ____ 480V Rx Aux Bus 3B
   ____ PZR htr MCC-3B

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5. ____ Notify TB Operator to ensure open and rack out the following Bkrs:

   ____ 3393 on 480V Turbine Aux Bus 3A
   ____ 3394 on 480V Turbine Aux Bus 3B
   ____ 3399 on 480V Heating Aux Bus

Energizing PZR Htrs From 4160V ES Bus B

6. ____ Energize Rx Aux Bus 3B.

Close the following Bkrs:

1. ____ 3222
2. ____ 3312
3. ____ 3392
4. ____ 3396

---

7. ____ Notify TB Operator to close the following Bkrs:

1. ____ 3356 on Rx Aux Bus 3A
2. ____ Bkr-1A at PZR htr MCC-3B
3. ____ Bkr-1B at PZR htr MCC-3B

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8. ____ Notify TB Operator to close 1 of the following Bkrs at PZR htr MCC-3B:

PZR htr Group	Bkr
2	2A
5	3A
6	4A
10	1D
11	2C
12	3C
13	4C