January 14, 1991
Z6D-90-016

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

Dear Sir:

Enclosed please find the Operating Status Report for the month of December, 1991 for Zion Generating Station.

T.P. Joyce
Station Manager
Zion Station

TPJ/JT/jl

Enclosure

cc: M. Wallace
A. B. Davis (NRC)
J. Leider
M. S. Turbak
W. Naughton
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D. R. Eggett
INPO
Div. of Eng. Health
State of Illinois
Tech Staff File
Director, Office of Inspection
and Enforcement
Master File

IE24
1/1

OPERATING DATA REPORT

DOCKET NO. 50-295
DATE 01/11/91
COMPLETED BY R. Herron
TELEPHONE (708) 746-2084
x2966

OPERATING STATUS

1. Unit Name: Zion Unit 1
2. Reporting Period: 0000 901201 to 2400 901231
3. Licensed Thermal Power (MWt): 3250
4. Nameplate Rating (Gross MWe): 1085
5. Design Electrical Rating (Net MWe): 1040
6. Maximum Dependable Capacity (Gross MWe): 1085
7. Maximum Dependable Capacity (Net MWe): 1040

Notes

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: N/A
9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr-to-Date	Cumulative
11. Hours In Reporting Period	744.0	8,760.0	149,040.0
12. Number Of Hours Reactor Was Critical	91.2	6,096.9	103,174.6
13. Reactor Reserve Shutdown Hours	0.0	0.0	2,621.8
14. Hours Generator On-Line	91.2	4,749.4	100,049.1
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	279,783	14,085,130	290,607,199
17. Gross Electrical Energy Generated(MWH)	94,283	4,723,455	93,796,264
18. Net Electrical Energy Generated (MWH)	82,899	4,446,516	89,153,380
19. Unit Service Factor	12.3	54.2	67.1
20. Unit Availability Factor	12.3	54.2	67.1
21. Unit Capacity Factor (Using MDC Net)	10.7	48.8	57.5
22. Unit Capacity Factor (Using DER Net)	10.7	48.8	57.5
23. Unit Forced Outage Rate	87.7	41.8	14.8

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup:
26. Units In Test Status (Prior to Commerical Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

OPERATING DATA REPORT

DOCKET NO. 50-304
DATE 01/11/91
COMPLETED BY R. Herron
TELEPHONE (708) 746-2084
X2966

OPERATING STATUS

1. Unit Name: Zion Unit 2
2. Reporting Period: 0000 901201 to 2400 901231
3. Licensed Thermal Power (MWt): 3250
4. Nameplate Rating (Gross MWe): 1085
5. Design Electrical Rating (Net MWe): 1040
6. Maximum Dependable Capacity (Gross MWe): 1085
7. Maximum Dependable Capacity (Net MWe): 1040

Notes

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: N/A
9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr-to-Date	Cumulative
11. Hours In Reporting Period	744.0	8,760.0	142,753.0
12. Number Of Hours Reactor Was Critical	744.0	3,122.6	103,233.7
13. Reactor Reserve Shutdown Hours	0.0	0.0	226.1
14. Hours Generator On-Line	744.0	2,962.1	100,399.0
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	2,365,730	8,422,858	297,892,505
17. Gross Electrical Energy Generated(MWH)	802,244	2,813,305	95,219,070
18. Net Electrical Energy Generated (MWH)	771,147	2,646,406	90,613,696
19. Unit Service Factor	100.0	33.8	70.3
20. Unit Availability Factor	100.0	33.8	70.3
21. Unit Capacity Factor (Using MDC Net)	99.7	29.0	61.0
22. Unit Capacity Factor (Using DER Net)	99.7	29.0	61.0
23. Unit Forced Outage Rate	0.0	39.5	14.0

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup:

26. Units In Test Status (Prior to Commerical Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-295
UNIT NAME Zion Unit 1
DATE 01/11/91
COMPLETED BY R. Herron
TELEPHONE (708) 746-2084

REPORT MONTH DECEMBER 1990

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
6	901204	F	652.5	A	1				Outage forced by bypass valve packing leak.

1
F: Forced
S: Scheduled

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

3
Method
1-Manual
2-Manual Scram
3-Auto Scram
4-Continued
5-Reduced Load

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

3153o(4)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-304
UNIT NAME Zion Unit 2
DATE 01/11/91
COMPLETED BY R. Herron
TELEPHONE (708) 746-2084

REPORT MONTH DECEMBER 1990 Page 1

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
									On-line the entire month.

1
F: Forced
S: Scheduled

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

3
Method
1-Manual
2-Manual Scram
3-Auto Scram
4-Continued
5-Reduced Load

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit 1 - Same Source

3153o(5)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-295
UNIT Zion Unit 1
DATE 01/11/91
COMPLETED BY R. Herron
TELEPHONE (708) 746-2084
x2966

MONTH December 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	988	17	-12
2	975	18	-12
3	1047	19	-12
4	773	20	-12
5	-13	21	-12
6	-12	22	-12
7	-12	23	-12
8	-13	24	-12
9	-13	25	-12
10	-13	26	-12
11	-13	27	-12
12	-12	28	-12
13	-12	29	-12
14	-12	30	-12
15	-12	31	-12
16	-12		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-304
UNIT Zion Unit 2
DATE 01/11/91
COMPLETED BY R. Herron
TELEPHONE (708) 746-2084
x2966

MONTH December 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1050	17	1053
2	1050	18	1021
3	1047	19	1050
4	1047	20	1052
5	1034	21	1053
6	1002	22	1031
7	1034	23	1057
8	1041	24	1059
9	992	25	1056
10	976	26	1055
11	979	27	1025
12	1046	28	1016
13	1048	29	1010
14	1051	30	1043
15	1050	31	1055
16	1051		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

DECEMBER 1990

SUMMARY OF OPERATING EXPERIENCE

UNIT 1

The unit entered December at 1050 MWe power level (97.0% reactor power). On December 4 at 1910 Unit 1 went off-line and at 1916 was shut down for a valve packing leak on the reactor coolant bypass valve. The unit remained off-line through the remainder of the reporting period due to a reactor coolant pump radial bearing failure.

UNIT 2

Unit 2 entered December at 1092 MWe power level (98.0% reactor power) and remained on-line throughout the reporting period ending at 1090 MWe (98.0% reactor power) with an equivalent availability factor of *100.0%.

* Please note that this is the first time in Zion's history that a unit has achieved 100% Equivalent Availability.

DECEMBER 1990

MAJOR SAFETY RELATED MAINTENANCE

Equipment Name	Work rerformed
(UNIT 1)	
Reactor coolant loop bypass valve 1MOV-RC 8003A	Repack
(UNIT 2)	
2A, Emergency Diesel Generator	Jacket water leak repair
2A, Emergency Diesel Generator	Repairs due to crankcase overpressurization caused by freezing of the crankcase vent flame arrestor.

REFUELING INFORMATION REQUEST

Questions:

1. Name of facility.

2. Scheduled date for next refueling shutdown.

3. Scheduled date for restart followiny refueling.

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

   If answer is yes, what, in general, will these be?

   If answer is no, has the reload fuel design and core configuration been reviewed by your Plant Safety Review Committee to determine whether any unreviewed safety questions are associated with the core reload (Ref. 10 CFR Section 50.59)?

   If no such review has taken place, when is it scheduled?

5. Scheduled date(s) for submitting proposed licensing action and supporting information.

6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

7. The number of fuel assemblies: (a) in the core and (b) in the spent fuel storage pool.

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.

Unit 1 - Answers

1. Zion Unit 1

2. Cycle 12 is scheduled to shutdown September 2, 1991 for refueling.

3. Cycle 13 is scheduled to start up November 11, 1991.

4. Yes. Technical Specification changes will be required to include the Westinghouse VANTAGE fuel design being loaded for Z1C13, and effects of the vessel fluence reduction program beginning with Z1C13.

   A Tech Spec change is also being submitted that will allow CECo to use a CORE OPERATING LIMITS REPORT (COLR) in place of some existing Tech Spec Limits.

5. License amendments for the Z1C13 reload are expected to be submitted in the Fall/Winter of 1990.

6. License considerations associated with the Z1C13 reload include the new VANTAGE fuel design, and the new LOCA analysis with higher core power peaking factors required for the low-low-leakage loading pattern used in Z1C13.

7. The number of fuel assemblies

   a) in the core is 193, and
   b) in the spent fuel storage pool from Zion Unit 1 is 708.

8. The present licensed spent fuel pool storage capacity (shared with Zion Unit 2) is 2112 fuel assemblies. Plans are being developed to rerack the Spent Fuel Pool to increase storage capacity to 3137 assemblies.

9. Zion Station will lose full core discharge capability (for both units) in May 1993, at the end of Unit 2 Cycle 13, based on the latest Nuclear Stations Refueling Schedule. Full core discharge capability for a single core will be lost in November, 1994, at the end of Unit 2 Cycle 14.

Unit 2 - Answers

1. Zion Unit 2

2. Cycle 12 is scheduled to Shutdown January 13, 1992 for refueling.

3. Cycle 13 is scheduled to start up March 23, 1992.

4. Yes. Technical Specification changes will be required to include the Westinghouse VANTAGE fuel design being loaded for Z2C13, and effects of the vessel fluence reduction program beginning with Z2C13.

   A Tech Spec change is also being submitted that will allow CECo to use a CORE OPERATING LIMITS REPORT (COLR) in place of some existing Tech Spec Limits.

5. License amendments for the Z2C13 reload are expected to be submitted in Spring/Summer 1991.

6. License considerations associated with the Z2C13 reload include the new VANTAGE fuel design, and the new LOCA analysis with higher core power peaking factors required for the low-low-leakage loading pattern used in Z2C13.

7. The number of fuel assemblies

   a) in the core is 193, and
   b) in the spent fuel storage pool from Zion Unit 2 is 740.

8. The present licensed spent fuel pool storage capacity (shared with Zion Unit 1) is 2112 fuel assemblies. Plans are being developed to rerack the Spent Fuel Pool to increase storage capacity to 3137 assemblies.

9. Zion Station will lose full core discharge capability (for both units) in May 1993, at the end of Unit 2 Cycle 13, based on the latest Nuclear Stations Refueling Schedule. Full core discharge capability for a single core will be lost in November, 1994, at the end of Unit 2 Cycle 14.