

June 14,1994 ZAD-94-006

Nuclear Regulatory Commission Document Control Desk Washington, DC 20555

Dear Sir:

Attached is the May 1994 Operating Status Report.

Station Marager Zion Station

Regulatory Assurance USNRC Document Control

M. Wallace

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INPO

Div. of Enforcement Health State of Illinois

F. Yost NRC Inspector, Zion

Operating Engrs. C. Y. Shiraki - Fax

Master File

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# OPERATING DATA REPORT

| DOCKET NO. | 50-295        |
|------------|---------------|
| DATE       | 06/14/94      |
| COMPLETED  | BY J. CYGAN   |
| TELEPHONE  | (708)746-2084 |
|            | X3169         |

# OPERATING STATUS

| Hours in Reporting Period       744.0       3,623.0       178,967         Number Of Hours Reactor Was Critical       0.0       53.3       119,488         Reactor Reserve Shutdown Hours       0.0       0.0       2,621         Hours Generator On-Line       0.0       1.8       115,924         Unit Reserve Shutdown Hours       0.0       0.0       0.0         Gross Thermal Energy Generated (MWH)       0.0       4,085.0       338,577.2         Gross Electrical Energy Generated (MWH)       0.0       316.0       109,859.8         Net Electrical Energy Generated (MWH)       0.0       0.0       104,546.5         Unit Service Factor       0.0       0.0       64         Unit Availability Factor       0.0       0.0       64         Unit Capacity Factor (Using MDC Net)       0.0       0.0       56   | Unit Name: Zion Unit 1 Reporting Period: 0000 050194 to 2400 0: Licensed Thermal Power (MWt): 3250 Nameplate Rating (Gross MWe): 1085 Design Electrical Rating (Net MWe): Maximum Dependable Capacity (Gross MWe) Maximum Dependable Capacity (Net MWe): If Changes Occur in Capacity Ratings (I Report, Give Reasons: N/A  | 104 <u>0</u><br>: 1085   |  | Last   |
|--|---|--|--|--|
| Hours in Reporting Period       744.0       3,623.0       178,967         Number Of Hours Reactor Was Critical       0.0       53.3       119,488         Reactor Reserve Shutdown Hours       0.0       0.0       2,621         Hours Generator On-Line       0.0       1.8       115,924         Unit Reserve Shutdown Hours       0.0       0.0       0.0         Gross Thermal Energy Generated (MWH)       0.0       4,085.0       338,577,2         Gross Electrical Energy Generated (MWH)       0.0       316.0       109,859.8         Net Electrical Energy Generated (MWH)       0.0       0.0       104,546.5         Unit Service Factor       0.0       0.0       64         Unit Availability Factor       0.0       0.0       64         Unit Capacity Factor (Using MDC Net)       0.0       0.0       56         Unit Capacity Factor (Using DER Net)       0.0       0.0       56         Unit Forced Outage Rate       100.0       99.9       16 | Power Level To Which Restricted, If Any Reasons For Restrictions, If Any: N   | (Net MWe):^A   | I/A  |  |
| Hours Generator On-Line  |   | This Month   | Yr-to-Date   | Cumulati   |
|  | Number Of Hours Reactor Was Critical Reactor Reserve Shutdown Hours Hours Generator On-Line Unit Reserve Shutdown Hours Gross Thermal Energy Generated (MWH) Gross Electrical Energy Generated (MWH) Net Electrical Energy Generated (MWH) Unit Service Factor Unit Availability Factor Unit Capacity Factor (Using MDC Net) Unit Capacity Factor (Using DER Net) Unit Forced Outage Rate | 0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0 | 53.3<br>0.0<br>1.8<br>0.0<br>4,085.0<br>316.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>99.9 | 178,967<br>119,488<br>2,621<br>115,924<br>0<br>338,577,2<br>109,859,8<br>104,546,5<br>64<br>64<br>56<br>56<br>16 |

# OPERATING DATA REPORT

| DOCKET NO.  | 50-304        |
|-------------|---------------|
| DATE        | 06/14/94      |
| COMPLETED ! | BY J. CYGAN   |
| TELEPHONE   | (708)746-2084 |
|             | X3169         |

# OPERATING STATUS

| Unit Name: Zion Unit 2 Reporting Period: 0000 050194 to 2400 0 Licensed Thermal Power (MWt): 3250 Nameplate Rating (Gross MWe): 1085 Design Electrical Rating (Net MWe): Maximum Dependable Capacity (Gross MWe) Maximum Dependable Capacity (Net MWe): If Changes Occur in Capacity Ratings (I Give Reasons: N/A  | 1040<br>1085<br>1040  |   | Last Report   |
|--|---|---|---|
| Power Level To Which Restricted, If Any<br>Reasons For Restrictions, If Any: N/A   |   | N/A   |   |
|  | This Month  | Yr-to-Date  | Cumulat   |
| Hours In Reporting Period Number Of Hours Reactor Was Critical Reactor Reserve Shutdown Hours Hours Generator On-Line Unit Reserve Shutdown Hours Gross Thermal Energy Generated (MWH) Gross Electrical Energy Generated (MWH) Net Electrical Energy Generated (MWH) Unit Service Factor Unit Availability Factor Unit Capacity Factor (Using MDC Net) Unit Capacity Factor (Using DER Net) Unit Forced Outage Rate Shutdowns Scheduled Over Next 6 Months | 744.0 744.8 0.0 744.0 0.0 2,413.040.0 809,696.0 781,017.0 100.0 100.0 100.9 100.9 0.0 (Type. Date. an | 3,623.0<br>1,081.8<br>0.0<br>1,055.5<br>0.0<br>3,278.892.0<br>1,097,258.0<br>1,046,320.0<br>29.1<br>29.1<br>27.8<br>27.8<br>0.0<br>Duration of Ea | 172,68<br>121,04<br>22<br>118,06<br>350,408<br>112,778<br>107,449 |
| If Shut Down At End Of Report Period, E<br>Units In Test Status (Prior to Commerci   | stimated Date o<br>al Operation):   | f Startup:<br>Forecast  | Achieved  |
| INITIAL CRITICALITY INITIAL ELECTRICITY COMMERCIAL OPERATIO  |   |   |   |

#### UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-295

UNIT NAME Zion Unit 1

DATE 06/14/94

COMPLETED BY J. CYGAN

TELEPHONE (708) 746-2084 x3169

### REPORT MONTH MAY 1994

| No. | Date  | Type 1 | Duration<br>(Hours) | Reason 2 | Method of<br>Shutting<br>Jown 3<br>Reactor | Licensee<br>Event<br>Report # | System<br>Code 4 | Component<br>Code 5 | Cause & Corrective<br>Action to<br>Prevent Recurrence  |
|-----|-------|--------|---------------------|----------|--|-------------------------------|------------------|---------------------|--|
|     | 05/01 | T-     | 744.0               | A        | 3  | 94-005                        | EL<br>EL<br>TB   | XFMR<br>BU<br>GEN   | Continuation of U1<br>Generator Trip/<br>Turbine Trip/Rx Trip.<br>Fire at Generator<br>Bus Duct. |

| 1 | F: Forced<br>S: Scheduled | Reason: A-Equipment Failure (Explain) B-Maintenance or Test C-Refueling D-Regulatory Restriction            | Method<br>1-Manual<br>2-Manual Trip<br>3-Auto Trip<br>4-Continued | Exhibit G - Instructions<br>for Preparation of Data<br>Entry Sheets for Licensee<br>Event Report (LER) File<br>(NUREG-0161) |
|---|---------------------------|---|---|---|
|   |                           | E-Operator Training & Licensee Examination F-Administrative G-Operational Error (Explain) H-Other (Explain) | 5-Reduced Load  | 5<br>Exhibit 1 - Same Source  |

### UNI\* SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-304
UNIT NAME Zion Unit 2
DATE 06/14/94
COMPLETED BY J. CYGAN
TELEPHONE (708) 746-2084 x3169

REPORT MONTH MAY 1994

| No. | Date | Type 1 | Duration<br>(Hours) | Reason 2 | Method of<br>Shutting<br>Down 3<br>Reactor | Licensee<br>Event<br>Report # | System<br>Code 4 | Component<br>Code 5 | Cause & Corrective<br>Action to<br>Prevent Recurrence |
|-----|------|--------|---------------------|----------|--|-------------------------------|------------------|---------------------|---|
|     |      |        |                     |          |  |                               |                  |                     | On line for the entire reporting period.              |

| 1 | F: Forced<br>S: Scheduled | Reason: A-Equipment Failure (Explain) B-Maintenance or Test C-Refueling D-Regulatory Restriction E-Operator Training & Licensee Examination F-Administrative G-Operational Error (Explain) | Method<br>1-Manual<br>2-Manual Trip<br>3-Auto Trip<br>4-Continued<br>1 5-Reduced Load | 5 | Exhibit G - Instructions<br>for Preparation of Data<br>Entry Sheets for Licensee<br>Event Report (LER) File<br>(NUREG-0161)<br>Exhibit 1 - Same Source |
|---|---------------------------|--|---|---|--|
|   |                           | H-Other (Explain)  |   |   | EXITOTE 1 - Same Source  |

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-295

UNIT Zion Unit 1

DATE 06/14/94

COMPLETED BY J. CYGAN

TELEPHONE (708) 746-2084

×3169

|     | MONTH APRIL 1994                    |     |                                     |
|-----|-------------------------------------|-----|-------------------------------------|
| DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
| 1   | -12                                 | 17  | -12                                 |
| 2   | -12                                 | 18  | -12                                 |
| - 3 | -12                                 | 19  | -12                                 |
| 4   | -12                                 | 20  | -12                                 |
| 5   | -12                                 | 21  | -12                                 |
| 6   | -12                                 | 22  | -12                                 |
| 7   | -12                                 | 23  | -12                                 |
| 8   | -12                                 | 24  | -12                                 |
| 9   | -12                                 | 25  | -12                                 |
| 10  | -12                                 | 26  | -12                                 |
| 11  | -12                                 | 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 06/14/94

COMPLETED BY J. CYGAN

TELEPHONE (708) 746-2084

x3169

|     | MONTH MAY 1994                      |     |                                     |
|-----|-------------------------------------|-----|-------------------------------------|
| DAY | AVERAGE DAIL: POWER LEVEL (MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL (MWe-Net) |
| 1   | 1050                                | 17  | 1050                                |
| 2   | 1049                                | 18  | 1052                                |
| 3   | 1049                                | 19  | 1053                                |
| 4   | 1050                                | 20  | 1051                                |
| 5   | 1051                                | 21  | 1048                                |
| 6   | 1048                                | 22  | 1048                                |
| 7   | 1049                                | 23  | 1048                                |
| 8   | 1051                                | 24  | 1047                                |
| 9   | 1053                                | 25  | 1048                                |
| 10  | 1052                                | 26  | 1049                                |
| 11  | 1052                                | 27  | 1048                                |
| 12  | 1050                                | 28  | 1051                                |
| 13  | 1048                                | 29  | 1050                                |
| 14  | 1048                                | 30  | 1050                                |
| 15  | 1050                                | 31  | 1051                                |
| 16  | 1050                                |     |                                     |

### 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.

### MAY 1994

# SUMMARY OF OPERATING EXPERIENCE

### UNIT 1

Unit 1 began May off-line. This is a continuation of the Forced Outage caused by a fire at generator bus duct on April 3, 1994 at 0618.

Unit 1 remained off-line for the entire reporting period.

#### UNIT 2

Unit 2 began May on-line at 1095 MWe power level (100% reactor power).

Unit 2 remained on-line for the entire month of May.

Unit 2 concluded the reporting period at 1100 MWe power level (100% reactor power)

### MAY 1994

# MAJOR MAINTENANCE

EQUIPMENT NAME

WORK PERFORMED

(UNIT 1)

Ul Generator

H2 & Electrical Fire Major Generator Repair OOS: 04/03/94 - \*

1W Transformer

Transformer Replacement Replace With New Transformer 00S: 04/03/94 - 05/21/94

COMMENT: \* No date estimated

# MAY 1994

# MAJOR MAINTENANCE

| EQUIPMENT NAME | WORK PERFORMED  |
|----------------|---|
| (UNIT 2)       |   |
| 2B D/G         | L/O Flex Hose Leak<br>Replace L/O Flex Hose<br>005: 05/05/94 - 05/06/94 |
| 2C HD Pp       | Scheduled Maintenance<br>Major Overhaul<br>008: 05/09/94 - 05/29/94     |

COMMENT:

#### REFUELING INFORMATION REQUEST

## QUESTIONS:

- 1. Name of facility.
- 2. Scheduled date for next refueling shutdown.
- Scheduled date for restart following 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?

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

#### REFUELING INFORMATION REQUEST

### UNIT 1 - ANSWERS:

- 1. Zion Unit 1.
- 2. Cycle 13 was shutdown October 21, 1993 for refueling.
- 3. Cycle 14 is scheduled to start up May 19, 1994.
- Yes, Neutron Flux NIS Instrumentation unit change per Gamma Metrics Mod. Onsite Review completed 4/8/93, submitted 4/21/93, approval was received on 10/29/93.
- Not applicable or none proposed.
- Not applicable.
- 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 784.
- 8. The present licensed spent fuel pool storage capacity (shared with Zion Unit 2) is 3012 fuel assemblies (only 2762 locations will be accessible).
- Zion Station will lose dual full core discharge capability in November 2001, at the beginning of Unit 1 Cycle 19, based on the latest Nuclear Stations Refueling Schedule. Full core discharge capability for a single core will be lost in May 2003, at the beginning of Unit 1 Cycle 20.

#### REFUELING INFORMATION REQUEST

## UNIT 2 - ANSWERS:

- 1. Zion Unit 2.
- 2. Cycle 13 is scheduled to shutdown January 5, 1995 for refueling.
- Cycle 14 is scheduled to start up March 22, 1995.
- Yes, Neutron Flux NIS Instrumentation unit change per Gamma Metrics Mod. Onsite Review completed 4/8/93, submitted 4/21/93, approval was received on 10/29/93.
- Not applicable or none proposed.
- 6. Not applicable.
- 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 824.
- The present licensed spent fuel pool storage capacity (shared with Zion Unit 1) is 3012 fuel assemblies (only 2762 locations will be accessible).
- 9. Zion Station will lose dual full core discharge capability in November 2001, at the beginning of Unit 1 Cycle 19, based on the latest Nuclear Stations Refueling Schedule. Full core discharge capability for a single core will be lost in May 2003, at the beginning of Unit 1 Cycle 20.

#### ADDENDUM TO ZION STATION MONTHLY REPORT

Special report submitted in accordance with Zion Tech. Spec. Surv. 4.15.B.5

This report addresses one valid failure of the 2B EDG. The criteria to determine valid tests are in accordance with section  $\rm C.2.e$  of Reg. Guide  $\rm 1.108$ .

On May 28, 1994 at 1501 the 2B EDG was observed, during PT-10-3 (Containment Isolation Phase B Testing), to be operating with erratic voltage and frequency control. Troubleshooting revealed that a voltage regulator was operating intermittently. The voltage regulator was replaced on the 2B EDG. The voltage regulator is currently being tested by the Com Ed System Operational Analysis Department for further root cause determination. The 2B EDG was returned to service at 1624 on May 28, 1994 following a successful PT-11. This failure was determined to be valid per R.G. 1.108. The 2B EDG was unavailable for approximately 25.5 hours during the course of this event. The test frequency for the 2B EDG is 7 days. As of May 28 this was the 4th valid failure in the last 100 valid Unit 2 demands.