

JUNE 1985

SUMMARY OF PLANT OPERATIONS

The plant was in cold shutdown for refueling and plant modification through June 9, 1985. On June 10, 1985 at 2215 hours, heat up was initiated for fuel cycle 7. The plant reached criticality at 1522 hours on June 14, 1985. At 1131 hours on June 18, 1985, operations personnel started reducing power from 14% because of a clogged turbine lube oil system. Reactor coolant temperature was leveled at 220°F on June 20, 1985, while maintenance was performed. On June 23, 1985, heat up was again initiated. At 0405 hours, indications of a potential reactor coolant system leak were recognized and an Unusual Event situation was declared. At 1835 on June 23, 1985, the plant was in cold shutdown where it remained for the balance of the month. During this period, a leak in the steam generator "B" high point vent line was identified.

No electrical power was generated during the month of June.

PERSONNEL CHANGES REQUIRING REPORT

Roger Miller resigned the position of Chem-Rad Superintendent on June 21, 1985. Fred Kellie has been designated as the acting superintendent until the position is officially filled.

SUMMARY OF CHANGES IN ACCORDANCE WITH 10 CFR 50.59(b)

The documentation for the following facility changes was completed in June. All of the changes have been subjected to the review and approval of the Plant Review Committee (PRC).

- 1) The existing field cable conductors were spliced with the RCS hot leg temperature RTD leads using a qualified Raychem splice kit. The change was made to ensure that the RTD installation meets the LOCA equipment qualification requirements of NRC IE Bulletin 79-01B and 10 CFR 50, Appendix A, Criterion 4 and eliminates the associated terminal blocks. The splicing material and installation will withstand the LOCA as defined in the USAR, including maximum temperature of 286°F, pressure of 52 psig, 100% relative humidity, chemical spray consisting of boric acid buffered with sodium hydroxide, and gamma radiation of  $1 \times 10^8$  (TID).
- 2) A change was made to allow use of the B&W developed flexible steam generator stabilizer as an option to the traditional rigid, segmented stabilizer. Use of these stabilizers are not allowed in tubes with flaws near the top of the generator and in areas of high cross flow velocities. The stabilizer consists of three Iconel 600 bars in a laminated configuration which are joined at the plugged end. Use of this stabilizer will reduce personnel radiation exposure.
- 3) A change was made to permit non-outage construction of essential ductwork in the computer room area of the Control Room. This change provided a temporary extension of the Control Room pressure boundary and allowed initiation of work on the essential HVAC system to be performed prior to the 1985 refueling outage. The essential HVAC system was constructed to comply with the requirements of NUREG 0660 for Control Room Habitability.

- 4) The electrical motors for safety related motor operated valves inside and outside the containment were replaced to meet post accident conditions required by NRC I&E Bulletin 79-01B, 10 CFR Appendix A, Criteria 4 and 56. Motors with Class "RH" insulation were installed on HV-23802 and HV-21517 inside the containment. Motors with class "B" insulation were installed on HV-20611 outside the containment. The new motors are qualified to  $2 \times 10^8$  rads.
- 5) The Barton Model 386 reactor vessel level transmitter was replaced with a Rosemount Model 1151 transmitter. The Rosemount transmitter will be more dependable in a harsh environment and still meet the required tolerances. The Rosemount transmitter will utilize the existing plant wiring. The level transmitter is used (valved in) only when the reactor coolant system is in cold shutdown, depressurized and drained down for repair maintenance or refueling.
- 6) The auxiliary feedwater (AFW) pump runout alarm was added to the Control Room. This change will alert the Control Room operators so that corrective action can be taken within 30 minutes. A report prepared by Elmer Makay, a pump consultant with Energy Research and Consultants Corporation, demonstrates that each AFW pump can operate for 30 minutes in an extreme runout condition.
- 7) A change was made to allow Pacific Gas & Electric (PG&E) to connect to the Rancho Seco switchyard on a temporary basis through future line position 4 to their Brighton Substation. This change will alleviate overloading on the PG&E Bellota-Tesla line and was requested by PG&E to add reliability to their transmission system. No credible failure mode of the additional transmission line will create a change to the present failure modes.
- 8) Procedure STP-173, "In Place Leak Test Procedure for HEPA Filter Banks" and procedure STP-174, "In Place Leak Test Procedure, Adsorber Stage," were revised to provide instructions for performing acceptance testing of the Control Room/Technical Support Center Emergency Ventilation System to satisfy ANSI N-510 requirements. The changes were necessitated by changes made to the Control Room Emergency Ventilation System under Engineering Change Notice (ECN A-3920).
- 9) Piping and two (2) isolation valves connecting lines 69020-2" - HD and 69223-2" - HD were added to allow the discharge from the Spent Regenerant Tank Pumps to be routed through the Miscellaneous Wastes Ion Exchanger prior to going to the Miscellaneous Waste Filters. This change provides more flexibility in processing contaminated water and results in lower personnel radiation exposure when changing the Miscellaneous Waste Filters.
- 10) New piping was added to the Post-Accident Sampling System to provide the capability to move reactor coolant, reactor building atmosphere and reactor building sump fluids to a sample conditioning, collection and analysis station. Routing of the piping was based on the post-accident shielding study and was routed so as not to add significantly to the Auxiliary Building radiation levels. The piping is provided with flushing fluids (demineralized water for liquid lines and nitrogen for gas lines) to prevent buildup and plateout, thus minimizing radiation between samplings.

- 11) A change was made to provide the operator with a method of ensuring the closure of the Atmospheric Dump Valves (ADV) from Shutdown Panel H2SD in the event of Control Room evacuation and loss of power to the Integrated Control System (ICS). This modification was necessary because loss of ICS power, in the event of fire in the Control Room, will result in the -10VDC to +10VDC control signals to the ADVs going to 0 VDC. This would cause the ADVs to go to mid-position which might result in primary loop overcooling. This change provides a local station from which the ADVs can be closed and manually controlled a safe distance from the valves.
- 12) A circuit was provided to inhibit the automatic starting of any condensate pump in the standby mode during safety feature actuation. This change was prompted by a study which showed that the starting of a condensate pump concurrent with initiation of safety features loads through ESFAS activation produces unacceptable voltage conditions on the nuclear safety buses. The change corrects this situation and satisfies one of the District's commitments made in a letter to the NRC, dated April 21, 1982.
- 13) The spent fuel storage racks were replaced with new high density storage modules. The replacement was performed in accordance with applicable codes and standards and within the guidance of established Rancho Seco Maintenance Guidelines. This change does not increase the probability of occurrence or the consequences of an incident, or create the possibility of a different incident than analyzed in the USAR. The change was necessitated by inadequate spent fuel storage capacity.
- 14) The OSA (outside air) intake ductwork which supplies make-up air to the air conditioning units in the switchgear rooms of the Auxiliary Building were removed above approximately elevation 30'-0". Two 24" X 36" penetrations were made in the south wall of the Auxiliary Building at elevation 20' - 10" to accommodate new OSA louvers for the air conditioning units. The ductwork from the louvers to the existing ductwork is supported as seismic class 2. This change was implemented to remove the non-seismic, non-essential ductwork for the switchgear room air handlers from the Control Room. This eliminates having to upgrade that ductwork to meet the requirements of NUREG 0737 III.D.3.4, "Control Room Habitability Requirements."
- 15) The capability to close the turbine bypass valves from the shutdown panel was added to meet the requirements in Appendix R for alternate shutdown capability. This change will ensure that the operator can close the turbine bypass valves in the event of Control Room evacuation and loss of ICS power, thus preventing overcooling of the primary system.
- 16) An injection coupling was added to RCS drain line 60025 - 1½" - CA to allow access to inject sealant into the area between RCS valves RCS-062, 035 and 037. The change was made to reduce RCS leakage into RCDT (V-600) post RCS-062 and 035. The change was designed and installed in accordance with ASME-III - NB - S78 and tested per ASME - XI - S75. This addition to the piping does not increase the piping stress above the code allowables nor create a potential accident or malfunction that has not previously been analyzed.

17) New procedure SP 200.20, "EMOV Power Position Indicator Calibration," has been added to comply with the requirement to calibrate the EMOV position indicator listed in Table 4.1-1 (Item 52) of the Technical Specifications. The incorporation of this surveillance test into the program will ensure that the pointer used by the operators to discern that EMOV position is accurate .

18) A Design Basis Report was written to demonstrate that the electrical penetration feedthroughs in H7RP21 which sustained visual damage when sprayed with CRC cleaner were not damaged to the extent that the integrity of the containment pressure boundary was affected. The report was based on test performed by Conax Corporation to show that the visual cracking and deterioration did not affect the integrity of the feedthrough assemblies.

#### MAJOR ITEMS OF SAFETY RELATED MAINTENANCE

1) The No. 3 throttle valve (TV-3) was completely disassembled, clearance check of all parts made and cross head repairs performed. The seat was reworked and the valve reassembled. All work was performed to Westinghouse and SMUD requirements.

2) The auxiliary feedwater risers on the "A" and "B" Once-Through-Steam Generators were removed for inspection. The stud holes, studs, nuts, gasket surfaces, and thermal sleeves were cleaned and new gaskets were installed during the replacement of the risers.

3) The Main Steam Isolation Valve (FV-30801) to the Terry turbine was disassembled and inspected to determine the cause of excess stroke time. A new closure spring, trip spring, stem bushing and throttle packing were installed.

4) The auxiliary feed pump turbine governor was replaced. New governor was installed in accordance with manufacturer's specifications, filled with oil and inspected to verify proper installation.

# REFUELING INFORMATION REQUEST

1. Name of Facility Rancho Seco Unit 1
2. Scheduled date for next refueling shutdown: Sept 15, 1986
3. Scheduled date for restart following refueling: Jan 15, 1987
4. Technical Specification change or other license amendment required:
  - a) Change to Rod Index vs Power Level Curve (TS 3.5.2)
  - b) Change to Core Imbalance vs Power Level Curve (TS 3.5.2)
  - c) Tilt Limits (TS 3.5.2)
5. Scheduled date(s) for submitting proposed licensing action: April 9, 1986
6. Important licensing considerations associated with refueling: N/A
7. Number of fuel assemblies:
  - a) In the core: 177
  - b) In the Spent Fuel Pool: 316
8. Present licensed spent fuel capacity: 1080
9. Projected date of the last refueling that can be discharged to the Spent Fuel Pool: Dec 3rd, 2001

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-312

UNIT Rancho Seco Unit 1

DATE 06-30-85

COMPLETED BY R. Colombo

TELEPHONE (916) 452-3211

MONTH June 1985

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	<u>0</u>
2	<u>0</u>
3	<u>0</u>
4	<u>0</u>
5	<u>0</u>
6	<u>0</u>
7	<u>0</u>
8	<u>0</u>
9	<u>0</u>
10	<u>0</u>
11	<u>0</u>
12	<u>0</u>
13	<u>0</u>
14	<u>0</u>
15	<u>0</u>
16	<u>0</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>0</u>
18	<u>0</u>
19	<u>0</u>
20	<u>0</u>
21	<u>0</u>
22	<u>0</u>
23	<u>0</u>
24	<u>0</u>
25	<u>0</u>
26	<u>0</u>
27	<u>0</u>
28	<u>0</u>
29	<u>0</u>
30	<u>0</u>
31	<u>0</u>

## 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.



# OPERATING DATA REPORT

DOCKET NO. 50-312

DATE 06/30/85

COMPLETED BY R. Colombo

TELEPHONE (916) 452-3211

## OPERATING STATUS

NOTE:

1. Unit Name: Rancho Seco Unit 1
2. Reporting Period: June 1985
3. Licensed Thermal Power (MWt): 2,772
4. Nameplate Rating (Gross MWe): 963
5. Design Electrical Rating (Net MWe): 918
6. Maximum Dependable Capacity (Gross MWe): 917
7. Maximum Dependable Capacity (Net MWe): 873
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	<u>720</u>	<u>4,343</u>	<u>89,448</u>
12. Number of Hours Reactor Was Critical	<u>94</u>	<u>1,718.5</u>	<u>53,165.9</u>
13. Reactor Reserve Shutdown Hours	<u>110.5</u>	<u>110.5</u>	<u>10,300.4</u>
14. Hours Generator On-Line	<u>0</u>	<u>1,618.2</u>	<u>49,281.7</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>1,210.2</u>
16. Gross Thermal Energy Generated (MWH)	<u>11,640</u>	<u>4,066,973</u>	<u>125,677,241</u>
17. Gross Electrical Energy Generated (MWH)	<u>0</u>	<u>1,366,847</u>	<u>40,798,810</u>
18. Net Electrical Energy Generated (MWH)	<u>0</u>	<u>1,289,988</u>	<u>37,881,184</u>
19. Unit Service Factor	<u>0.0%</u>	<u>37.3%</u>	<u>55.1%</u>
20. Unit Availability Factor	<u>0.0%</u>	<u>37.3%</u>	<u>56.4%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>0.0%</u>	<u>34.0%</u>	<u>48.5%</u>
22. Unit Capacity Factor (Using DER Net)	<u>0.0%</u>	<u>32.4%</u>	<u>46.1%</u>
23. Unit Forced Outage Rate	<u>100.0%</u>	<u>22.0%</u>	<u>29.7%</u>
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: August 2, 1985
26. Units In Test Status (Prior to Commercial Operation):
 

	Forecast	Achieved
INITIAL CRITICALITY	<u>N/A</u>	<u>N/A</u>
INITIAL ELECTRICITY	<u>N/A</u>	<u>N/A</u>
COMMERCIAL OPERATION	<u>N/A</u>	<u>N/A</u>

# UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-312  
 UNIT NAME Rancho Seco Unit 1  
 DATE 6/30/84  
 COMPLETED BY R. Colombo  
 TELEPHONE (916) 452-3211

REPORT MONTH June 1985

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
5	6/01/85	S	720	C	1	N/A	ZZ	ZZZZZZ	Shutdown for refueling

<sup>1</sup>  
 F: Forced  
 S: Scheduled

<sup>2</sup>  
 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)

<sup>3</sup>  
 Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Other (Explain)

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

<sup>5</sup>  
 Exhibit I - Same Source





**SMUD**

SACRAMENTO MUNICIPAL UTILITY DISTRICT □ 6201 S Street, P.O. Box 15830, Sacramento CA 95852-1830. (916) 452-3211  
AN ELECTRIC SYSTEM SERVING THE HEART OF CALIFORNIA

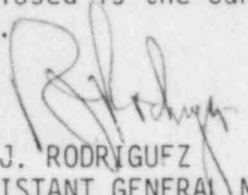
RJR 85-339

July , 1985

DIRECTOR  
OFFICE OF INSPECTION AND ENFORCEMENT  
U S NUCLEAR REGULATORY COMMISSION  
WASHINGTON DC 20555

OPERATING PLANT STATUS REPORT  
DOCKET NO. 59-312

Enclosed is the June 1985 Monthly Plant Status Report for Rancho Seco Unit One.

  
R. J. RODRIGUEZ  
ASSISTANT GENERAL MANAGER,  
NUCLEAR

ENC 5

cc: I&E Washington (9)  
Region V  
MIPC (2)  
INPO

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