

AUGUST 1982

SUMMARY OF PLANT OPERATIONS

On April 22, 1982, the plant went into a scheduled outage for inspection and repair of the OTSG Auxiliary Feedwater Ring Headers--this outage was terminated this month.

On August 19, 1982, the Reactor was brought critical and on August 20, 1982, the unit was brought on line. While attempting to come up to full power, the unit experienced two turbine trips and was also twice manually taken off line (detailed in Unit Shutdowns and Power Reductions). On August 27, 1982, the unit was brought on line again and began increasing power to 95% full power, the present state of the plant.

PERSONNEL CHANGES REQUIRING REPORT

No personnel changes that require reporting in accordance with Technical Specifications Figure 6.2-2 were made in August 1982.

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

One change was made in August--the resupporting of RCP motor lube oil collection system. (See attachment.)

MAJOR ITEMS OF SAFETY RELATED MAINTENANCE

1. Replaced "B" CRD Breaker 480V
2. Completed the OTSG Auxiliary Feedwater Ring Headers repair and modification, including:
 - a. The Appendix R modifications committed to be performed during any unscheduled outage greater than 120 days were completed.
 - b. Those items from the Technical Specifications Refueling interval surveillance program, for which relief was not requested by Technical Specification amendment, were successfully completed.
 - c. At the District's option, a complete refueling interval ISI on both OTSGs was performed. A detailed list of those OTSG tubes precautionarily removed from service was included in the Auxiliary Feedwater transmittal to the Commission in response to questions (response dated August 3, 1982). Total tubes plugged were: OTSG A, ten tubes; OTSG B, nine tubes.
 - d. Prior to this shutdown, the makeup pump was out of service pending repairing of its electrical motor. During the outage, that pump was returned to service.

MAJOR ITEMS OF SAFETY RELATED MAINTENANCE Cont.

- e. Work was done on both decay heat pump seals as a result of small leaks. Both diesel generators had only normal maintenance performed on them during the outage.
- f. Two high pressure injection nozzles into the RCS cold legs had their thermal sleeves replaced with a new design.
- g. Both OTSGs have had their Internal Auxiliary Feedwater Headers abandoned and replaced with new External Auxiliary Feedwater Ring Headers. Tests to demonstrate the adequacy of this modification were successfully performed.
- h. The pressurizer spray valves and EMOV block valve were all reworked for operability during the outage.
- i. A component cooling water Reactor Building isolation valve operator was overhauled.
- j. Both safety features' Auxiliary Feedwater control valves had their torque switches reset to provide higher closing torque.
- k. Two instrument system root valves to the Reactor Coolant System were reworked.

OPERATING DATA REPORT

DOCKET NO. 50-312
 DATE 82-08-31
 COMPLETED BY P. Colombo
 TELEPHONE (916) 452-3211

OPERATING STATUS

1. Unit Name: Rancho Seco Unit 1
 2. Reporting Period: August 1982
 3. Licensed Thermal Power (MWt): 2772
 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

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	<u>744</u>	<u>5831</u>	<u>64,632</u>
12. Number Of Hours Reactor Was Critical	<u>285.3</u>	<u>2503.6</u>	<u>37,740.2</u>
13. Reactor Reserve Shutdown Hours	<u>451.2</u>	<u>2855.2</u>	<u>9,313.8</u>
14. Hours Generator On-Line	<u>242.7</u>	<u>2395.6</u>	<u>36,166.0</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>1,210.2</u>
16. Gross Thermal Energy Generated (MWH)	<u>555,363</u>	<u>5,258,301</u>	<u>91,153,413</u>
17. Gross Electrical Energy Generated (MWH)	<u>178,349</u>	<u>1,754,866</u>	<u>30,516,295</u>
18. Net Electrical Energy Generated (MWH)	<u>160,427</u>	<u>1,639,505</u>	<u>28,796,622</u>
19. Unit Service Factor	<u>32.6%</u>	<u>41.1%</u>	<u>56.0%</u>
20. Unit Availability Factor	<u>32.6%</u>	<u>41.1%</u>	<u>57.8%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>24.7%</u>	<u>32.2%</u>	<u>51.0%</u>
22. Unit Capacity Factor (Using DER Net)	<u>23.5%</u>	<u>30.6%</u>	<u>48.6%</u>
23. Unit Forced Outage Rate	<u>7.2%</u>	<u>1.2%</u>	<u>29.8%</u>

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

TMI Modifications, January 1983, 6 months

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

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 82-08-31
COMPLETED BY J. Edwards
TELEPHONE (916) 452-3211

REPORT MONTH AUGUST 1982

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
07	82-04-03	S	451	B	1	82-010-01T	CH	HTEXCH	Repair and modify OTSG Auxiliary Feedwater Ring Headers.
08	82-08-20	F	0.5	A	3	N/A	HA	MECFUN	Suspected cause--turbine electro-hydraulic control system malfunction; no corrective action at this time.
09	82-08-21	F	2.0	B	1	N/A	HA	MECFUN	
10	82-08-25	F	9	B	3	N/A	HA	MECFUN	
11	82-08-27	F	6.5	B	1	N/A	HA	MECFUN	Defective auto stop control pressure valve in turbine electro-hydraulic control system; valve replaced.

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-Other (Explain)

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

⁵
 Exhibit I - Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-312

UNIT Rancho Seco

DATE 82-08-31

COMPLETED BY J. Edwards

TELEPHONE (916) 452-3211

MONTH AUGUST

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	284
7	0	23	646
8	0	24	827
9	0	25	390
10	0	26	818
11	0	27	666
12	0	28	798
13	0	29	814
14	0	30	826
15	0	31	804
16	0		

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.

REFUELING INFORMATION REQUEST

1. Name of Facility: Rancho Seco Unit 1
2. Scheduled date for next refueling shutdown: January 1983
3. Scheduled date for restart following refueling: July 1983
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: November 1982
6. Important licensing considerations associated with refueling: None
7. Number of fuel assemblies:
 - a) In the core: 177
 - b) In the Spent Fuel Pool: 196
8. Present licensed spent fuel capacity: 579
9. Projected date of the last refueling that can be discharged to the Spent Fuel Pool: 1987

1. DESCRIPTION: Re-support of RCP Motor lube oil collection system.

NCR _____

ECN A-3438

2. SAFETY ANALYSIS:

Attached.

R.A. Dietrich 3/17/81
Licensing Engineer Date

J.M. Paasch 3/17/81
Manager Generation Engineering Date

3. PRC RECOMMENDATION: 50.59(a) Yes No 50.59(b) Yes No

DISPOSITION OF PRC:

- a. Unanimously recommends proposal
- b. Send to MSRC for concurrence
- c. Recommends not to proceed
- d. Safety analysis inadequate
- e. MSRC review prior to implementing
- f. Test of system required

R.W. Colombo 3-22-82
PRC Chairman Date

4. ANALYSIS: 50.59(a) Yes No Recommend to Proceed Yes No
 50.59(b) Yes No Refer to MSRC
 Test of system required

J. L. ... 3/22/82
Plant Superintendent Date

5. MSRC FINDINGS: 50.59(a) Yes No 50.59(b) Yes No

DISPOSITION OF MSRC:

- a. Recommends proposal
- b. Send to NRC for approval
- c. Recommends not to proceed
- d. Safety analysis inadequate

John J. Mattiace 4/29/82
MSRC Chairman Date

6. COMMISSION APPROVAL OBTAINED

Date

MSRC Chairman

PLANT WORK HAS BEEN COMPLETED

7. RETEST COMPLETE AND ACCEPTABLE: Test results approved

ON 5/13/82

Supervisor Engineering and Quality Control

8. OVERALL REVIEW: Plant modification change complete.

I certify to the best of my knowledge that all work complete on "issues".
Kenneth M. ...

[Signature] 8/10/82
Manager Nuclear Operations Date

9. DOCUMENTATION COMPLETE:

G.H. Schwieger 8-13-82
Quality Assurance Director Date

SAFETY ANALYSIS FORMAT

RANCHO SECO NUCLEAR GENERATING STATION UNIT NO. 1

ECN A-3438 NCR _____ Work Request _____

DESCRIPTION: This ECN will add supports to the reactor coolant pump motor lube oil catch pans and drain piping. Flame arrestors will be installed on the collection tank vents.

The analysis is described in the Design Basis Report.

REASON FOR CHANGE: Appendix R to 10 CFR 50 requires that the Reactor Coolant Pump Motor Tube oil catch pans and drain lines be able to withstand the Safe Shutdown Earthquake.

Appendix R also requires the addition of flame arrestors to the drain tanks if a danger of flashback exists.

EVALUATION AND BASIS FOR THE SAFETY FINDINGS:

The design change does not affect any existing safety analyses nor does it raise any new safety questions.

These changes further reduce the probability of a fire inside containment and reduce the probability of damage to non safety-related equipment during a design basis earthquake.

- The proposed change will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR or create the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR or reduce the margin of safety as defined in the basis for any Technical Specification.

PERMITS WORK HAS
BEEN COMPLETED
ON AUG 02 1982
RANCHO SECO

SAFETY FINDING:

- The proposed change does not involve a change in the Technical Specifications or an unresolved safety question.

Licensing Engineer R. A. Dittler Date 3/17/81
 Review Engineer Lee R. Gorman Date 3/17/81

DESIGN BASIS REPORT

ECN A-3438

NCR _____

Work Request _____

Discipline: Mechanical

Date: March 11, 1981

I. PURPOSE OF DESIGN CHANGE:

Appendix R to 10CFR 50 requires that the Reactor Coolant Pump Motor lube oil catch pans and drainlines be able to withstand the Safe Shutdown Earthquake.

II. DESIGN CRITERIA USED:

- The collection system was analyzed up to and including the attachment bolts to the motor.
- Material strengths were assumed to be the minimums allowed by the applicable ASTM specification.
- The seismic response spectrum for the 40 ft elevation of the Containment Building, as presented in the FSAR, were used in the analysis.

III. CALCULATIONS AND DESIGN INFORMATION:

Attached

Note: The attached calculations present the analysis of the catch pans only; this report will be revised when the analysis of the drain piping is completed.

IV. FAILURE MODE:

No failure mode is associated with this design review. Probability of a fire in containment is reduced by this change.

V. COMMENTS:

Additional bracing was found necessary in the analysis and will be added under ECN A-3438.

PLANT WORK HAS
BEEN COMPLETED

ON AUG 02 1982

RANCHO SECO
DOCUMENT CONTROL

Design Engineer James J. Fisk Date 3/26/81

Review Engineer Lee R. Keenan Date 3/16/81

Rev 1 - 3/15/82 - Addition of piping analysis summary.
- This revision does not affect the Safety
Analysis.
J.J. Fisk 3/15/82