

# OPERATING DATA REPORT

DOCKET NO. 50-275  
 DATE 01/13/84  
 COMPLETED BY W.J. Kelly  
 TELEPHONE (805)595-7351

## OPERATING STATUS

1. Unit Name: Diablo Canyon Unit 1
2. Reporting Period: December 1983
3. Licensed Thermal Power (MWt): 166.9
4. Nameplate Rating (Gross MWe): 1170
5. Design Electrical Rating (Net MWe): 1084
6. Maximum Dependable Capacity (Gross MWe): 1134
7. Maximum Dependable Capacity (Net MWe): 1084
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes: Completed initial fuel loading and reactor vessel head installation. Presently in Mode 5 (cold) shutdown)

9. Power Level To Which Restricted, If Any (Net MWe): -0-
10. Reasons For Restrictions, If Any: Awaiting granting of low power test permit by the Nuclear Regulatory Commission.

	This Month	Yr-to-Date	Cumulative
11. Hours In Reporting Period	<u>0</u>	<u>0</u>	<u>0</u>
12. Number Of Hours Reactor Was Critical	<u>0</u>	<u>0</u>	<u>0</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>0</u>	<u>0</u>	<u>0</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>0</u>	<u>0</u>	<u>0</u>
17. Gross Electrical Energy Generated (MWH)	<u>0</u>	<u>0</u>	<u>0</u>
18. Net Electrical Energy Generated (MWH)	<u>0</u>	<u>0</u>	<u>0</u>
19. Unit Service Factor	<u>N/A</u>		
20. Unit Availability Factor	<u>N/A</u>		
21. Unit Capacity Factor (Using MDC Net)	<u>N/A</u>		
22. Unit Capacity Factor (Using DER Net)	<u>N/A</u>		
23. Unit Forced Outage Rate	<u>N/A</u>		
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

25. If Shut Down At End Of Report Period, Est. Date of Startup: January, 1984
  26. Units In Test Status (Prior to Commercial Operation):
- |                      |          | Forecast    | Achieved      |
|----------------------|----------|-------------|---------------|
| INITIAL CRITICALITY  | February | <u>1984</u> | <u>      </u> |
| INITIAL ELECTRICITY  | March    | <u>1984</u> | <u>      </u> |
| COMMERCIAL OPERATION | May      | <u>1984</u> | <u>      </u> |

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# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-275  
UNIT Diablo Canyon Unit 1  
DATE 01/13/84  
COMPLETED BY W.J. Kelly  
TELEPHONE (805)595-7351

MONTH December 1983

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.

## UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-275  
 UNIT NAME DIABLO CANYON UNIT 1  
 DATE 01/13/84  
 COMPLETED BY W.J. KELLY  
 TELEPHONE (805) 595-7351

REPORT MONTH DECEMBER 1983

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
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NONE

None. Just completed initial  
fuel loading operations.

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

DIABLO CANYON NUCLEAR POWER PLANT

UNIT 1

MONTHLY OPERATING REPORT

DISCUSSION OF DESIGN CHANGE REQUEST

DCO-EM-11674, R2

ADDITION OF RADWASTE PRETREATMENT FILTERS

ITEM:

- a. A summary of the evaluation that led to the determination that the change could be made in accordance with 10 CFR 50.59.

RESPONSE:

This design change will allow pretreatment of the liquid radwaste streams before they are processed in the radwaste ion exchangers, increasing the effectiveness of the ion exchangers. Installation and use of activated carbon filters and a change in the ion exchangers function to include processing normal liquid radwaste streams in addition to post-accident sample waste streams for processing liquid radioactive waste is unrelated to any of the accidents evaluated in the FSAR. The type of malfunction or error that could be associated with either the existing liquid radioactive waste processing system, or the use of activated carbon filters and use of ion exchangers, are less severe than those described in the FSAR. The installation and use of activated carbon filters and ion exchangers for processing liquid radioactive waste is unrelated to any of the bases in the plant Technical Specifications and will not affect the margin of safety as defined in the Technical Specification bases.

ITEM:

- b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information.

RESPONSE:

This design change improves the operation of the liquid radwaste system by adding additional filtering capability. The change adds activated carbon filters and reroutes piping for series operation of the ion exchangers to process radwaste. The potential for release of radioactive material from the plant is not increased. The changes do not affect safety related equipment.

ITEM:

- c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems.

RESPONSE:

In the revised liquid radwaste system, two 36 cubic foot media filters have been added for the purpose of operating in series upstream of the existing two 36 cubic foot ion exchangers whose function has been expanded to include processing of normal liquid radwaste streams in addition to waste samples from the post accident sample system. The system piping also allows for the liquid flow, if so desired, to pass through the existing cartridge filter prior to flowing through the media filters and ion exchangers. Flow from the Post-LOCA Sample Collection Tanks can, as before, be processed through the ion exchangers.

Liquid radwaste from the Equipment Drain Receiver Tanks will be pumped through these components and routed to the Waste Concentrator Condensate Tanks for sampling and analysis prior to being released into the circulating water discharge.

ITEM:

- d. An evaluation of the change which shows the predicted release of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and amendments thereto.

RESPONSE:

The predicted releases of gaseous radioactive materials are not affected by this change. The predicted liquid releases will be decreased since the filter function will be to remove suspended solids; the change in the predicted releases is small and has not been calculated in detail. Solid radwaste volume is expected to be reduced, as the ion exchanger volume should be less than the solid radwaste drum volume.

ITEM:

- e. An evaluation of the change which shows the expected maximum exposures to individuals in the unrestricted area and to the general population that differ from those previously estimated in the license application and the amendments thereto.

RESPONSE:

The release of radioactive materials is essentially unchanged as a result of this DCN, therefore there is no change in exposures to individuals in unrestricted areas or to the general population.



ITEM:

- f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made.

RESPONSE:

Diablo Canyon is not yet operational, and no releases of radioactive materials have been made. Therefore, a comparison of the predicted releases of radioactive materials to the actual releases for the period prior to when the changes are to be made, cannot be performed. Predicted releases show no increase over previously anticipated. There is essentially no change in the predicted releases of radioactive materials in liquid and gaseous effluents. In solid wastes there will not be a change in the predicted releases and a small overall volume reduction is anticipated.

ITEM:

- g. An estimate of the exposure to plant operating personnel as a result of change.

RESPONSE:

There will not be any significant change in radiation exposure to plant operating personnel since the accumulation of activity will be small and the filters will be shielded.

ITEM:

- h. Documentation of the fact that the change was reviewed and found acceptable by the PSRC.

RESPONSE:

This design change was approved by the PSRC on December 20, 1983.

DIABLO CANYON NUCLEAR POWER PLANT  
UNIT 1  
MONTHLY OPERATING REPORT  
DECEMBER 29, 1983

DISCUSSION OF DESIGN CHANGE REQUEST  
DCO-EC-11030  
EXPANSION OF SOLID RADWASTE STORAGE BUILDING  
AND ADDITION OF NEW LAUNDRY FACILITY

ITEM:

- a. A summary of the evaluation that led to the determination that the change could be made in accordance to 10CFR50.59.

RESPONSE:

The waste storage remains in the same plant area, only to be expanded from short term storage to slightly less than five years storage. The exterior walls of the original solid waste storage vaults are not being changed, therefore the shielding properties will be unchanged. This modification has no affect on the environment. This modification has not created the possibility for an accident or malfunction of a type not previously evaluated in the FSAR. The functionality of the storage facility will not change; only the capacity is increased and a laundry facility added. The solid radwaste storage building is not addressed in the Technical Specifications therefore no safety margin of the Technical Specifications bases is reduced.

ITEM:

- b. Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information.

RESPONSE:

This design change modifies the interior of the solid radwaste storage vaults to accommodate the bridge cranes and transport cask, and modification of the vault exterior to accommodate a building addition. Structural modifications are required due to expansion of the original radioactive waste storage and laundry facilities.

ITEM:

- c. A detailed description of the equipment, components and processes involved and the interfaces with other plant systems.

RESPONSE:

The addition to the storage building involves expansion of the storage (new floor on top of the storage vaults) and the addition of a laundry facility. The new storage area will have shield walls of the same thickness as the exterior walls of the original structure. The shielding properties will be equivalent to interface with existing process system. Makeup water shall be supplied to the washing machines, respirator cleaner and the sinks. Drainage shall be provided from the washing machines, respirator cleaner, sinks and floor drains to the laundry drain tank.

ITEM:

- d. An evaluation of the change which shows the predicted releases of radioactive materials in liquid and gaseous effluents and/or quantity of solid waste that differ from those previously predicted in the license application and the amendments thereto.

RESPONSE:

The predicted releases of gaseous radioactive releases are not affected by this change. The complete waste storage facility will be continuously ventilated with all ventilation air released through a new HEPA filter bank.

ITEM:

- e. An evaluation of the change which shows the expected maximum exposures to individuals in the unrestricted area and to the general population that differ from those previously estimated in the license application and amendments thereto.

RESPONSE:

There is no change in the expected maximum exposures to individuals in unrestricted areas or to the general population previously estimated in the license application.

ITEM:

- f. A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made.

RESPONSE:

There is no change in the predicted releases of radioactive materials in liquid and gaseous effluents. No actual release of radioactive materials in any form has been made prior to this design change, therefore no comparison can be made.



ITEM:

- g. An estimate of the exposure to plant operating personnel as a result of the change.

RESPONSE:

There will be a reduction in radiation exposure to plant operating personnel because of the remote handling provisions of the modified facility and equipment. There will also be less exposure because of a more efficient dry active waste handling and packaging facility.

ITEM:

- h. Documentation of the fact that the change was reviewed and found acceptable by the PSRC.

RESPONSE:

This design change was approved by the PSRC on December 5, 1983.

MONTHLY NARRATIVE REPORT  
OF OPERATION  
AND MAJOR MAINTENANCE EXPERIENCE

This report describes the operating and major maintenance experience for the month of December 1983. This narrative report was prepared by the plant staff and is submitted in accordance with Section 6.9.1.10 of the plant Technical Specifications.

No changes have been made in the Offsite Dose Calculation Procedure or the Environmental Radiological Monitoring Procedure.

During this reporting period three challenges were made to the Power Operated Relief Valves (PORV) to mitigate a Reactor Coolant System (RCS) pressure transient.

The first event occurred on December 5, 1983 at 1001 PST. The Unit was in operational mode 5 (cold shutdown), the RCS was water solid, and pressure control valve PCV 135 of the Chemical and Volume Control System (CVCS) was automatically controlling RCS pressure at 400 psig by regulating letdown flow. The event was initiated when Residual Heat Removal (RHR) Pump 1-2 was stopped to reduce RHR pump heat input. The resulting decrease in letdown flow caused an initial decrease in RCS pressure. The PCV-135 control system then caused the valve to move toward the closed position, slightly overcompensating and subsequently increasing the RCS pressure faster than PCV 135 could control. Thus, PORV 455C lifted at low pressure set point of 430 psig for about three (3) seconds.

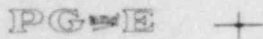
The second and third events occurred on December 9, 1983, at 1140 PST and 1143 PST respectively. The Unit was in operational mode 5, and RCS was water solid, and pressure control valve PCV 135 was automatically controlling RCS pressure at 400 psig. The events were initiated when RHR pump discharge valve HCV 637 and HCV 638 were being used to adjust RHR flow. HCV 637 was opened to increase RHR flow resulting in a decreased letdown flow to the CVCS. PCV 135 did not respond fast enough to increase letdown flow, so the RCS pressure increased rapidly and PORV 455C lifted for about 3 seconds. Immediately afterward, the operator placed PCV 135 in manual to adjust letdown flow, and PORV 455C again lifted for about three (3) seconds.

These events occurred during routine RHR system flow adjustments. In these particular cases, the system pressure control valve did not respond fast enough to sufficiently control RHR pressure. Operators have been cautioned that all RHR and letdown adjustments should be made slowly when the RCS is water solid; the operating procedure has also been revised to include these precautions.

We have completed our cold system testing program which included control rod drive mechanism timing, digital rod position indication system functional testing and cold rod drop testing.

Two changes were approved in December affecting radioactive waste treatment systems. The discussion of design changes DCO-EM-11674, R2 and DCO-EC-11030 are contained in the body of this report.

# PACIFIC GAS AND ELECTRIC COMPANY



DIABLO CANYON POWER PLANT  
P.O. Box 56 • Avila Beach, California 93424 • (805) 595-7351

R. C. THORNBERRY  
PLANT MANAGER

January 13, 1984

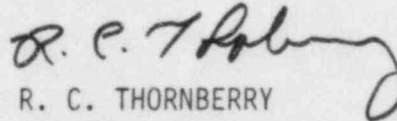
Office of Management Information  
and Program Control  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

RE: Docket No. 50-275  
License No. DPR-76  
Monthly Operating Report for December, 1983

Gentlemen:

Enclosed are the completed monthly operating report forms for Diablo Canyon Unit 1 for December 1983. This report is submitted in accordance with Section 6.9.1.10 of our Technical Specifications.

Sincerely,

  
R. C. THORNBERRY

RCT:cmr

Enclosures

cc Mr. John B. Martin, Regional Administrator  
Region V - USNRC

IE24  
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bcc	JVBoots	RFatterson
	PACrane	WTRapp
	CLEldridge	FHSandifer
	MSGanous	JOSchuyler
	BWGiffin	CMSeaward
	JBHoch	JDShiffer
	WBKaefer	MMendonca (NRC)
	BSLew	INPO Record Center
	DBMiklush	RMS