OPERATING DATA REPORT

DOCKET NO. 50-344
DATE 11-3-81
COMPLETED BY W. O. Nicholson
TELEPHONE 503/556-3713
ext. 293

OPERATING STATUS

1. Unit Name: Trojan Nuclear Plant
2. Reporting Period: October 1981
3. Licensed Thermal Power (MWt): 3411
4. Nameplate Rating (Gross MWe): 1216
5. Design Electrical Rating (Net MWe): 1130
6. Maximum Dependable Capacity (Gross MWe): 1122
7. Maximum Dependable Capacity (Net MWe): 1080
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

None

Notes

Correction to September hours critical:

Year-to-date: 4521.8
Cumulative: 27283.1

9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: NA

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	745(time change)	7296	45288
12. Number Of Hours Reactor Was Critical	716.1	5237.9	27999.2
13. Reactor Reserve Shutdown Hours	0	0	2171.8
14. Hours Generator On-Line	665.6	5030.6	27024.1
15. Unit Reserve Shutdown Hours	0	0	1508.7
16. Gross Thermal Energy Generated (MWH)	1864249	15962121	84528803
17. Gross Electrical Energy Generated (MWH)	592475	5185660	27561046
18. Net Electrical Energy Generated (MWH)	554084	4896432	26003191
19. Unit Service Factor	89.3	69.0	59.7
20. Unit Availability Factor	89.3	69.0	63.0
21. Unit Capacity Factor (Using MDC Net)	68.9	62.1	53.2
22. Unit Capacity Factor (Using DER Net)	65.8	59.4	50.8
23. Unit Forced Outage Rate	10.7	6.2	22.7

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

None

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

	Forecast	Achieved
INITIAL CRITICALITY	NA	NA
INITIAL ELECTRICITY	NA	NA
COMMERCIAL OPERATION	NA	NA

AVERAGE DAILY UNIT POWER LEVEL

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MONTH October 1981

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1047	17	641
2	1050	18	657
3	1054	19	658
4	264	20	659
5	586	21	661
6	1038	22	378
7	1050	23	6
8	1050	24	20
9	1052	25	517
10	1052	26	702
11	1052	27	1043
12	763	28	1053
13	652	29	1053
14	661	30	900
15	666	31	435
16	668		

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.

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October 1981

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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
81-16	10/4/81	F	21.5	A	3	81-025-03-L	EB	RELAYX	Power to Preferred Instrument Bus Y11 was lost due to the failure of an output current sensing relay on inverter Y15. This affected the main feed pump speed control system, resulting in an automatic turbine trip/reactor trip on steam generator Hi-Hi level. The relay was replaced.
81-17	10/12/81	F	2.8	B	3	NA	CH	INSTRU	The reactor tripped on low steam generator level with feed flow-steam flow mismatch after an Instrument Technician performing maintenance drew an arc while replacing a lead, causing a voltage transient which affected the north main feed pump control system. This resulted in a trip of the north feed pump and subsequent trip of the south feed pump on overspeed.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance of 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

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October 1981

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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
81-18	10/22/81	F	23.5	G	3	NA	EB	INSTRU	The reactor tripped after a Meter and Relay Technician inadvertently caused a bus lockout on the 12kV H1 bus supplying power to "A" and "C" reactor coolant pumps. The outage was prolonged by high steam generator conductivity caused by reverse flow through a stuck-open condensate pump discharge check valve, flushing resin out of the full-flow demineralizers into the condensate system.
81-19	10/23/81	F	26.9	H	3	NA	HH	VALVEX	Power reduction commenced toward zero power due to a recurrence of high steam generator conductivity. At approximately 10% power, the reactor tripped on steam generator "D" low-low level from difficulty in manually controlling level.

1
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S: Scheduled

2
Reason:
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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:
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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October 1981

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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
81-20	10/30/81	F	4.7	A	3	NA	CH	INSTRU	The reactor tripped on low steam generator level with feed flow-steam flow mismatch after "D" feed reg. valve went shut. The valve shut due to a burned out air vent solenoid coil for feedwater isolation which was 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
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SUMMARY OF OPERATING EXPERIENCE

OPERATION:

The plant entered the month of October operating at 100% power.

On October 4, the reactor tripped due to a burned out relay in the static inverter on Preferred Instrument Bus Y11. Two air leaks inside Containment were repaired before returning the plant to service 21 hours later.

An Instrument Technician performing maintenance drew an arc while replacing a lead, resulting in a voltage transient which caused a reactor trip on October 12. The plant was returned to power within three hours. The north condensate pump failed during the trip, limiting plant power output to 65% until the pump was repaired and returned to service on October 26. Two damaged bowls were replaced on the pump and a complete inspection was performed on the motor.

On October 22, the reactor tripped when a Meter and Relay Technician caused a bus lockout on the 12kV bus supplying power to "A" and "C" reactor coolant pumps. The outage was prolonged by high steam generator conductivity caused by reverse flow through a stuck-open condensate pump discharge check valve flushing resin out of the full-flow demineralizers into the condensate system. The plant was returned to service after 23 hours.

The plant was taken off the line on October 23 due to a recurrence of high steam generator conductivity during power excalation. Conductivity was reduced to within specification and the plant returned to service 27 hours later.

On October 30, the reactor tripped when the "D" feed regulating valve shut. A burned out air vent solenoid coil for feedwater isolation was replaced and the plant returned to service within five hours. Power was being increased toward 100% as the month ended.

The Reactor Coolant System gross gamma activity increased from approximately 10uCi/ml to about 23uCi/ml before decreasing to 17uCi/ml at the end of the month. Activity had not completely stabilized due to plant transients. Radiochemistry analysis shows suspected fuel failure in 10 to 15 rods in the once-burned fuel region "E."

MAJOR SAFETY-RELATED MAINTENANCE:

Air leaks were repaired on the "B" reactor coolant pump standpipe fill and seal return valves.

Annual preventative maintenance was completed on the diesel-driven fire pump.

Hanger work was completed on the east Emergency Diesel Generator exhaust pipe.

SUMMARY OF OPERATING EXPERIENCE (Contd.)

MISCELLANEOUS MAINTENANCE:

Two damaged bowls were replaced on the north condensate pump.

Electric auxiliary feed pump functional test was completed satisfactorily.

Continued work outside containment on the Reactor Vessel Level Indicating System (RVLIS).

Completed annual inspection on the east Turbine Building Cooling Water Pump.

A gas leak was repaired on the West Waste Gas Compressor.

Continued work on the post-accident sampling system.

Replaced air vent solenoid coils for feedwater isolation on "C" and "D" feed regulating valves.

LICENSE CHANGES:

None.

MISCELLANEOUS:

Work continued throughout the month on the Technical Support Center with the fire main initial pressurization test completed and the 12kV power supply installed.