

C 06/21, '78

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50-289

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DOCDATE: 06/14/78
DATE RCVD: 06/19/78

DOCTYPE: LETTER NOTARIZED: NO
SUBJECT:

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FORWARDING SUBJECT FACILITY'S MONTHLY OPERATING REPT FOR THE MONTH OF MAY,
1978.

PLANT NAME: THREE MILE ISLAND - UNIT 1

REVIEWER INITIAL: XJM
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***** DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS *****

ANNUAL & SEMI-ANNUAL OPERATING REPORTS (OL STAGE).
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THE END

1589 021

7910310671 R



METROPOLITAN EDISON COMPANY SUBSIDIARY OF GENERAL PUBLIC UTILITIES CORPORATION

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

TELEPHONE 215 - 929-3601

June 14, 1978
GQL 1064

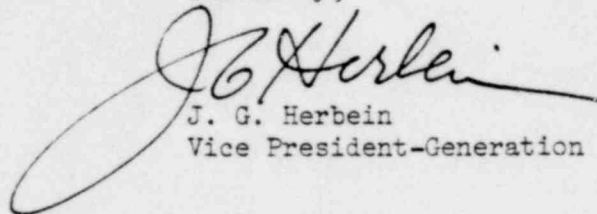
Mr. Ernst Volgenau, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289

Enclosed please find two (2) copies of the May Operating Report for Three Mile Island Nuclear Station, Unit 1.

Sincerely,



J. G. Herbein
Vice President-Generation

JGH:DGM:cjg

Enclosure:

cc: Mr. B. H. Grier, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Director (2 copies)
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Washington, D. C. 20555

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A008
A003
5/11

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH MAYDocket No. 50-289Unit Name TMI 1Date 6-2-78Completed By D. G. MitchellTelephone 929-3601 Ext. 163

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report Number	System Code ⁴	Component Code ⁵	Cause and Corrective Action to Prevent Recurrence
4	5-1-78	S	31	C	1				Closed Generator breakers at 0702 on 5-2-78
5	5-2-78	S	1.6	H					Turbine Testing
6	5-20-78	S	0	H					Physicstesting for power imbalance detector correlation test

¹F: Forced
S: Scheduled

²Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & Licensee Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

³Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

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

⁵Exhibit 1 - Same Source

1589 023

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AVERAGE DAILY UNIT POWER LEVEL

Ticket No. 50-289

Unit TMI-1

Date June 2, 1978

Completed By D. G. Mitchell

Telephone 929-3601 Ext. 169

MONTH MAY

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>-41</u>
2	<u>109</u>
3	<u>273</u>
4	<u>260</u>
5	<u>571</u>
6	<u>577</u>
7	<u>682</u>
8	<u>708</u>
9	<u>703</u>
10	<u>699</u>
11	<u>704</u>
12	<u>700</u>
13	<u>700</u>
14	<u>701</u>
15	<u>705</u>
16	<u>707</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>707</u>
18	<u>703</u>
19	<u>702</u>
20	<u>523</u>
21	<u>693</u>
22	<u>753</u>
23	<u>782</u>
24	<u>767</u>
25	<u>771</u>
26	<u>769</u>
27	<u>771</u>
28	<u>771</u>
29	<u>770</u>
30	<u>768</u>
31	<u>765</u>

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TMI-1 OPERATING SUMMARY

MAY 1978

Unit Performance

The Unit was synchronized and breakers were closed at 0702 hours on May 2, 1978 following the 46 Day 1978 Refueling Outage. The Unit was taken to 25% for 4 hours to equalize temperatures on the Turbine Rotor. The Unit was then taken off line, overspeed testing conducted successfully, and put back on line for power escalation at 1330 hours on 2 May 1978. Physics testing was conducted with Xenon Equilibrium conditions at 40%, 75% and 90% power conditions through to 05/07/78. Following the physics testing program, the Unit was held at about 91% power because of a NRC 91% Licensing Restriction initially resulting from concerns over the new B&W Small Break Loss of Coolant Accident Analysis but subsequently restricted by the unexpected power peaking testing results collected during the power escalation physics testing program. These two issues were resolved with the NRC, and a 100% license issued late on 05/19/78. The Unit remained at 90% however, until 05/20/78 when it reduced power to 50% to conduct turbine valve testing and subsequent physics testing at 60% and 70% power. The Unit escalated to 100% power at 0312 hours on 05/21/78.

At 2130 hours on 05/21/78, the Unit was forced to reduce to 95% due to the HD-P-1C seal failure while HD-P-1A was out of service for pump shaft replacement. The Unit returned to 100% on 05/22/78 at 1400 hours.

100% power operation continued until 05/24/78 1851 hours at which time the Unit experienced an automatic ICS runback to approximately 60% power due to a Main Feed Pump Trip. While isolating one half of the "A" feed pump condenser to investigate a tube leak, an auxiliary vacuum pump tripped on thermal overload and the feed pump subsequently tripped on loss of vacuum. The Unit was returned to full power on 05/24/78 at 2335 hours.

On 05/31/78 at about 1040 hours, higher than normal bearing vibrations and temperature were momentarily experienced on the Generator Exciter bearings (approximately 7 mills vibration on Brg. No. 11 & 12, and approximately 200°F on Brg. No. 12). The cause was surmised to be momentary restriction in the oil supply to Brg. No. 12. Load shedding of the Unit was initiated but was terminated at 98% power since the vibration and temperature conditions stabilized and quickly returned to normal. After an unsuccessful investigation, to precisely identify the cause of the abnormal bearing vibration and temperatures, the Unit returned to 100% power operation within 2 hours.

Unit Shutdowns and Significant Power Reductions

1. 0001 Hrs. 05/01/78 to 1300 Hrs. 05/02/78 - 1978 Refueling Outage
2. 1300 Hrs. 05/02/78 to 0710 Hrs. 05/07/78 - Power Escalation Physics Testing with hold points at 40%, 75% and 90% power.

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3. 0710 Hrs. 05/07/78 to 1800 Hrs. 05/19/78 - 91% NRC License Restriction Small Break LOCA, Flux peaking results from physics testing.
4. 1800 Hrs. 05/19/78 to 0315 Hrs. 05/20/78 - 50% Turbine Stop Valve Testing; Physics Testing hold points at 60% and 70%.
5. 2130 Hrs. 05/21/78 to 1400 Hrs. 05/22/78 - 95% - HD-P-1C Seal Failure While HD-P-1A OOS.
6. 1851 Hrs. 05/24/78 to 2335 Hrs. 05/24/78 - 60% - ICS Runback Due to FW-P-1A Trip.
7. 1040 Hrs. 05/31/78 to 1115 Hrs. 05/31/78 - 98% - Exciter Bearing Abnormal Vibration and Temperature.

MAINTENANCE SUMMARY

There was no major safety related maintenance performed during the month of May, 1978.

1589 026

PERATING DATA REPORT

cket No. 50-289

Date June 2, 1978

Completed By D. G. Mitchell

Telephone 929-3601 Ext. 169

OPERATING STATUS

1. Unit Name: Three Mile Island, Unit 1
2. Reporting Period: May, 1978
3. Licensed Thermal Power (MWt): 2535
4. Nameplate Rating (Gross MWe): 871
5. Design Electrical Rating (Net MWe): 819
6. Max. Dependable Capacity (Gross MWe): 840
7. Max. Dependable Capacity (Net MWe): 792
8. If Changes Occur in Capacity Ratings (Items No. 3 through 7) Since Last Report, Give Reasons: _____

9. Power Level to which Restricted. If Any (Net MWe): _____
10. Reasons for Restrictions, If Any: _____

	<u>This Month</u>	<u>Yr.-To-Date</u>	<u>Cumulative</u>
11. Hours in Reporting Period	<u>744</u>	<u>3623</u>	<u>32832</u>
12. No. of Hours Reactor was Critical	<u>744</u>	<u>2615</u>	<u>25673.3</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>838.5</u>
14. Hours Generator On-Line	<u>711.4</u>	<u>2535.4</u>	<u>25132.9</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1559329</u>	<u>6,029,244</u>	<u>61,422,779</u>
17. Gross Elect. Energy Generated (MWH)	<u>508903</u>	<u>2,000,880</u>	<u>20,494,682</u>
18. Net Electrical Energy Generated (MWH)	<u>474545</u>	<u>1,866,816</u>	<u>19,185,215</u>
19. Unit Service Factor	<u>95.6</u>	<u>70.0</u>	<u>76.6</u>
20. Unit Availability Factor	<u>95.6</u>	<u>70.0</u>	<u>76.6</u>
21. Unit Capacity Factor (Using MDC Net)	<u>80.5</u>	<u>65.1</u>	<u>73.8</u>
22. Unit Capacity Factor (Using DER Net)	<u>77.9</u>	<u>62.9</u>	<u>71.3</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>0</u>	<u>5.1%</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: _____

26. Units In Test Status (Prior to Commercial Operation):	<u>FORECAST</u>	<u>ACHIEVED</u>
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

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