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MONTHLY OPERATING REPT FOR THE MONTH OF FEBRUARY, 1978.

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PLANT NAME: THREE MILE ISLAND - UNIT 1

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March 13, 1978  
GQL 0416



Mr. E. 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 February 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 & Enforcement, Region I  
U. S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

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A003/s \*

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# AVERAGE DAILY UNIT POWER LEVEL

Docket No. 50-289  
 Unit TMI-1  
 Date 3-10-78  
 Completed By D. G. Mitchell  
 Telephone 929-3601 Ext. 169

MONTH February, 1978

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>789</u>	17	<u>797</u>
2	<u>789</u>	18	<u>801</u>
3	<u>788</u>	19	<u>801</u>
4	<u>784</u>	20	<u>797</u>
5	<u>747</u>	21	<u>786</u>
6	<u>782</u>	22	<u>783</u>
7	<u>789</u>	23	<u>785</u>
8	<u>794</u>	24	<u>786</u>
9	<u>792</u>	25	<u>785</u>
10	<u>793</u>	26	<u>790</u>
11	<u>795</u>	27	<u>715</u>
12	<u>796</u>	28	<u>611</u>
13	<u>798</u>	29	<u></u>
14	<u>796</u>	30	<u></u>
15	<u>797</u>	31	<u></u>
16	<u>797</u>		

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# OPERATING DATA REPORT

cket No. 50-289

Date 3-10-78

Completed By D. G. Mitchell

Telephone 926-3601 Ext. 169

## OPERATING STATUS

1. Unit Name: Three Mile Island Unit 1
2. Reporting Period: February 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:  
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>672</u>	<u>1416</u>	<u>30,625</u>
12. No. of Hours Reactor was Critical	<u>672</u>	<u>1416</u>	<u>24,474.3</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>838.5</u>
14. Hours Generator On-Line	<u>672</u>	<u>1416</u>	<u>24,013.5</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1,672,492</u>	<u>3,523,853</u>	<u>58,917,418</u>
17. Gross Elect. Energy Generated (MWH)	<u>557,129</u>	<u>1,181,112</u>	<u>19,674,914</u>
18. Net Electrical Energy Generated (MWH)	<u>524,403</u>	<u>1,112,107</u>	<u>18,430,506</u>
19. Unit Service Factor	<u>100%</u>	<u>100%</u>	<u>78.4%</u>
20. Unit Availability Factor	<u>100%</u>	<u>100%</u>	<u>78.4%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>98.5%</u>	<u>99.2%</u>	<u>76.0%</u>
22. Unit Capacity Factor (Using DER Net)	<u>95.3%</u>	<u>95.9%</u>	<u>73.5%</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>0</u>	<u>5.3%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Refueling March 17, 1978 - 6 weeks</u>			

25. If Shut Down at End of Report Period, Estimated Date of Startup: N/A
26. Units In Test Status (Prior to Commercial Operation):
 

		FORECAST	ACHIEVED
INITIAL CRITICALITY	N/A	<u>          </u>	<u>          </u>
INITIAL ELECTRICITY	N/A	<u>          </u>	<u>          </u>
COMMERCIAL OPERATION	N/A	<u>          </u>	<u>          </u>

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## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH February 1978

Docket No. 50-289

Unit Name TMI-1

Date 3-10-78

Completed By D. G. Mitchell

Telephone 929-3601 Ext. 169

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down <sup>3</sup>	Licensee Event Report Number	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause and Corrective Action to Prevent Recurrence
1	2-27-78	F	0	A	4				Feedwater Heater Leaks
<div><div><div>1F: Forced S: Scheduled</div><div>2Reason: A-Equipment Failure (Explain) B-Maintenance or Test C-Refueling D-Regulatory Restriction E-Operator Training &amp; Licensee Examination F-Administrative G-Operational Error (Explain) H-Other (Explain)</div><div>3Method: 1-Manual 2-Manual Scram. 3-Automatic Scram. 4-Other (Explain)</div><div>4Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)</div><div>5Exhibit 1 - Same Source</div></div></div>									

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### SUMMARY OF OPERATING EXPERIENCE

With the exception of the following reductions, the unit operated at essentially 100% full power until 2/27/78.

On 2/5/78, both penetration cooling fans (AH-E-9A/B) failed causing high temperatures at the Reactor Building penetrations for the four main steam lines. Reactor Power/Unit load was reduced to 80% for 7 hours in order to reduce the penetration temperatures while temporary cooling fans could be installed.

On 2/8/78, while conducting FW temperature calibration checks, a technician lifted the ICS selected FW temperature lead in error causing the ICS to sense a Reactor-Feedwater demand mismatch and an automatic Reactor Power runback. The power reduction was to 80% and lasted approximately 6 minutes.

On 2/25/78, a 6 hour planned power reduction to 95% was made to conduct surveillance testing of the 5 main steam safety valve setpoints.

On 2/27/78, the unit reduced power in order to isolate the "B" low pressure feedwater heater string and locate leaking feedwater heater tubes. While isolating the low pressure heater string, tube leaks developed in the "B" high pressure feedwater heaters forcing the isolation of the "B" high pressure feedwater heater string. While maintaining about 83% power, the 8B low pressure heater was opened and 18 leaking tubes were plugged. Isolation of the "B" high pressure FW heater string was inadequate to permit leak checking and tube plugging.

As a result of the above FW heater maintenance, Reactor power remained at 83% for the remainder of the month.

### MAINTENANCE SUMMARY

DH-P-1B was inspected during February upon reaching 1 hour of running operation. The following work was performed:

- (1) IRD reading was taken.
- (2) Pump to motor coupling removed.
- (3) Alignment check between motor and pump.
- (4) Ultrasonic test of pump shaft.
- (5) Analysis of UT results.
- (6) Coupling of pump to motor.
- (7) Testing of pump (IRD and operational) and declaring pump operable.
- (8) Return pump to service.

Results of UT and IRD readings were satisfactory. All work was performed within the time limits set forth in the technical specifications.

1589 062

REFUELING INFORMATION REQUEST

1. Name of Facility: Three Mile Island Unit No. 1
2. Scheduled date for next refueling shutdown: March 17, 1978
3. Scheduled date for restart following refueling:  
May 15, 1978 for Reactor Criticality (tentative)
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment?  
Yes

If answer is yes, what, in general, will these be?

The Technical Specification change for Cycle 4 will provide revised operational limits for rod withdrawal index and Power Imbalance. Also the Core Protection Safety Limits and the Protection System Maximum Allowable Setpoints for Reactor Power Imbalance have been slightly revised. The quadrant power tilt limit will be changed from a maximum actual core tilt of 3.41% to 4.92%.

If answer is no, has the reload fuel design and core configuration been reviewed by your Plant Safety Review Committee to determine whether any unreviewed safety questions are associated with the core reload (Ref. 10 CFR Section 50.59)?

N/A

If no such review has taken place, when is it scheduled?

N/A

5. Scheduled date(s) for submitting proposed licensing action and supporting information.

Technical Specification Change Request #70 was submitted to the NRC on 1/9/78.

6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

There are no important licensing considerations associated with Cycle 4 operation. TMI-1 will change from a rodged to a feed-bleed mode of operation for Cycle 4. This change is not regarded as a major change in the operating mode since TMI-1 was operated in essentially a rods-out configuration during the latter part of Cycle 1 and Cycle 3.

7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.

(a) 177 (b) 104 (start of 1978 refueling outage)

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.

Recently licensed for 752 fuel assemblies storage locations in the A&B spent fuel pools. 496 location B pool racks to be installed starting in February 1978.

1589 063

Refueling Information  
Request

- 2 -

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.

1986 is last refueling discharge which allows full core off-load capacity (177 fuel assemblies).

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