

AVERAGE DAILY UNIT POWER LEVEL

Docket No. 50-289

Unit TMI-1

Date 4-14-78

Completed By D. G. Mitchell

Telephone 215-929-3601 Ext. 169

MONTH MARCH

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>608</u>	17	<u>740</u>
2	<u>600</u>	18	<u>-25</u>
3	<u>646</u>	19	<u>-13</u>
4	<u>782</u>	20	<u>-9</u>
5	<u>780</u>	21	<u>-7</u>
6	<u>777</u>	22	<u>-7</u>
7	<u>779</u>	23	<u>-6</u>
8	<u>776</u>	24	<u>-6</u>
9	<u>780</u>	25	<u>-6</u>
10	<u>783</u>	26	<u>-7</u>
11	<u>679</u>	27	<u>-6</u>
12	<u>595</u>	28	<u>-5</u>
13	<u>598</u>	29	<u>-5</u>
14	<u>-669</u>	30	<u>-6</u>
15	<u>776</u>	31	<u>-6</u>
16	<u>770</u>		

The negative numbers indicate that more energy was supplied to the unit than was produced during that day.

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OPERATING DATA REPORT

Docket No. 50-289

Date April 14, 1978

Completed By D. G. Mitchell

Telephone 215-929-3601 Ext. 16

OPERATING STATUS

1. Unit Name: Three Mile Island, Unit 1
2. Reporting Period: March 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

	<u>This Month</u>	<u>Yr.-to-Date</u>	<u>Cumulative</u>
11. Hours in Reporting Period	<u>744</u>	<u>2160</u>	<u>31,369</u>
12. No. of Hours Reactor was Critical	<u>408</u>	<u>1824</u>	<u>24,882.3</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>838.5</u>
14. Hours Generator On-Line	<u>408</u>	<u>1824</u>	<u>24,421.5</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>946,062</u>	<u>4,469,915</u>	<u>59,863,480</u>
17. Gross Elect. Energy Generated (MWH)	<u>310,865</u>	<u>1,491,977</u>	<u>19,985,779</u>
18. Net Electrical Energy Generated (MWH)	<u>288,534</u>	<u>1,400,641</u>	<u>18,719,040</u>
19. Unit Service Factor	<u>54.8</u>	<u>84.4</u>	<u>77.9</u>
20. Unit Availability Factor	<u>54.8</u>	<u>84.4</u>	<u>77.9</u>
21. Unit Capacity Factor (Using MDC Net)	<u>49.0</u>	<u>81.9</u>	<u>75.3</u>
22. Unit Capacity Factor (Using DER Net)	<u>47.4</u>	<u>79.2</u>	<u>72.9</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>0</u>	<u>5.2</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: April 27, 1978

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

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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH MARCHDocket No. 50-289Unit Name TMI-1Date 4-14-78Completed By D. G. MitchellTelephone 215-929-3601 Ext. 169

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
2	3/1/78	F	0	A	4				Feedwater heater leaks
3	3/11/78	F	0	A	4				Feedwater heater leaks
4	3/18/78	S	336	C	1				

¹F: Forced
¹S: 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

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TMI-1 OPERATING SUMMARY

UNIT PERFORMANCE

The Unit began the month at about 83% power as a result of feed water heater leak repair work which had commenced last month. The Unit returned to 100% power on 03/03/78 but at reduced load (~ 15 MWe) due to the "B" high pressure string remaining isolated. On 03/11/78 Unit power was reduced to 75% to repair the gasket leak on the 18 feedpump discharge flow nozzle (FE-8). The Unit returned to 100% power within 71.5 hours but still at reduced load due to the isolation of the "B" high pressure string. On 03/16/78 the Unit power was reduced to approximately 98% due to the End of Life reactivity deficiency. This power reduction was the first of several planned step power reductions in order to extend Core Cycle 3 from the original max. of 280 to 315 EFPD. Because of the earlier power reductions to repair the feedwater system problems, only the first step of the power coast down scheme was executed.

On 03/17/78, the Unit shutdown to commence the 1978 Refueling Outage. Refueling Outage Milestones which were completed this month are as follows:

- 03/22/78 - Incore Detectors Chopped
- 03/23/78 - Reactor Vessel Head Removed
- 03/29/78 - Turbine LPA and HP Rotor Removed
- 03/31/78 - Fuel Shuffle Complete

SIGNIFICANT POWER REDUCTIONS

1. 03/01/78 to 03/03/78 (68.6 Hrs.) at 83% power due to "B" feedwater heater string (both HP & LP) being isolated.

The Unit returned to 100% Reactor Power on 03/03/78 with the "B" HP FW string isolated. This reduction in feedwater heating caused a loss of unit efficiency equivalent to about 15 MWe.

2. 03/11/78 to 03/14/78 (71.5 Hrs.) at 75% power due to a gasket leak on the 18 feed pump discharge flow nozzle (FE-8).
3. 03/16/78 to 03/17/78 (39 Hrs.) at 98% power due to End of Life Reactivity deficiency.
4. 03/17/78 to 03/31/78 at 0% power due to 1978 Refueling Outage.

JELING INFORMATION REQUEST

1. Name of Facility: Three Mile Island Unit No. 1
2. Scheduled date for next refueling shutdown: March 17, 1979
3. Scheduled date for restart following refueling:
May 15, 1978 for Reactor Criticality (tentative - present refueling)
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 and #70 A were submitted to the NRC on 1-9-78, and 4-3-78, respectively.

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) 160 (after 1978 refueling outage)

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During the month of March the following maintenance was performed:

On March 17, 1978 at 2400 the turbine generator was taken off line to commence the refueling outage. The reactor coolant system was cooled down and depressurized in preparation for Reactor Vessel work. The following work was performed in preparations for the fuel shuffle:

1. Reactor Vessel head lugs removed
2. Reactor Vessel head cables disconnected
3. Reactor Vessel APSR's and CRDM's uncoupled and parked
4. Reactor Vessel head detensioned and removed
5. Vent valve inspection performed
6. FTC filled to refueling level

The Reactor refueling shuffle commenced on March 27 and was completed and verified on March 31, 1978.

Reactor Coolant Pump 1B, #2 and #3 and pump 1C, #1, #2 and #3 seals were removed for periodic inspection. A blank flange was installed to allow the reactor refueling to continue while the seals were inspected. Seals were inspected and worn parts replaced.

RC-RV-1A was removed for pop testing per technical specification. A spare valve, tested prior to the refueling outage, was installed in its place. The old RC-RV-1A valve was pop tested to ensure the setpoint was within the specified limits. The valve tested satisfactorily. The valve will be sent out at a later date for overhaul.

RCS nitrogen overpressurization modification was performed as required to fulfill a prior NRC commitment.

Prior to starting fuel shuffle, 35 incore detectors were pulled for replacement. Remaining incores were pulled to the parked position for fuel shuffle. New incores to be installed upon completion of fuel shuffle.

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.

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