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January 14, 1991  
C311-91-2001

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Subject: Three Mile Island Nuclear Station, Unit I (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Monthly Operating Report December 1990

Enclosed are two copies of the December, 1990 Monthly Operating Report for  
Three Mile Island Nuclear Station, Unit 1.

Sincerely,

T. G. Broughton  
Vice President & Director, TMI-1

TGB/WGH:

cc: Administrator, Region I  
TMI Senior Resident Inspector  
Attachments

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PDR ADOCK 05000289  
R PDR

TE2A  
11

OPERATIONS SUMMARY  
DECEMBER 1990

The unit entered the month operating at 75% power producing 600 MWe. A reduced power level was maintained to effect repairs to the "10B" low pressure feedwater heater as a result of tube leakage. On December 3, 1990 the "B" low pressure and high pressure feedwater heater strings were returned to service following the repairs. Plant power was raised to 95%. The plant continued power operation at =95% until December 23, 1990. As a result of a Minimum Emergency Generation Order, TMI-1 was required to reduce power to 89%. Following a return to 94% power TMI-1 was again reduced to 84% power for a period of four hours before being returned to 94% power. The unit closed the month operating at a 94% power level limited by high OTSG levels on the "B" side.

MAJOR SAFETY RELATED MAINTENANCE

During December, the following major safety related maintenance activity was performed:

Control Building Chiller "B" (AH-C-4B)

The Control Building Chiller "B" (AH-C-4B) was taken out of service to perform the annual inspection of the unit and normal monthly inspection items. In addition, a Hot Gas Bypass Valve Kit was installed as a modification to the unit to eliminate short cycling of the chiller during low-load operations. The chiller was returned to service after satisfactory operation at low-load (to verify proper operation of the modification) and normal conditions.

Control Rod Drive Breaker #11

Control Rod Drive Breaker #11 was replaced with a new breaker because of a noisy undervoltage device. Efforts to determine the cause of the undervoltage device noise in the removed breaker will continue into January 1991.

OPERATING DATA REPORT

DOCKET NO. 50-289  
 DATE 01/15/91  
 COMPLETED BY W. G. Heysek  
 TELEPHONE (717) 948-8191

OPERATING STATUS

	NOTES
1. UNIT NAME: THREE MILE ISLAND UNIT 1	
2. REPORTING PERIOD: DECEMBER, 1990.	
3. LICENSED THERMAL POWER (MWT): 2568.	
4. NAMEPLATE RATING (GROSS MWE): 871.	
5. DESIGN ELECTRICAL RATING (NET MWE): 819.	
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 856.	
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 808.	

8. IF CHANGES OCCUR IN (ITEMS 3-7) SINCE LAST REPORT, GIVE REASONS:

9. POWER LEVEL TO WHICH RESTRICTED, IF ANY (NET MWE) \_\_\_\_\_

10. REASONS FOR RESTRICTIONS, IF ANY: \_\_\_\_\_

	THIS MONTH	YR-TO-DATE	CUMMULATIVE
11. HOURS IN REPORTING PERIOD	744.	8760.	143161.
12. NUMBER OF HOURS REACTOR WAS CRITICAL	744.0	7165.6	69164.2
13. REACTOR RESERVE SHUTDOWN HOURS	0.0	242.8	2245.6
14. HOURS GENERATOR ON-LINE	744.0	7123.6	68119.7
15. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	0.0
16. GROSS THERMAL ENERGY GENERATED (MWH)	1755896.	16898878.	166470772.
17. GROSS ELECTRICAL ENERGY GENERATED (MWH)	594700.	5654235.	55960904.
18. NET ELECTRICAL ENERGY GENERATED (MWH)	559582.	5302931.	52489420.
19. UNIT SERVICE FACTOR	100.0	81.3	47.6
20. UNIT AVAILABILITY FACTOR	100.0	81.3	47.6
21. UNIT CAPACITY FACTOR (USING MDC NET)	93.1	74.9	46.7
22. UNIT CAPACITY FACTOR (USING DER NET)	91.8	73.9	44.8
23. UNIT FORCED OUTAGE RATE	0.0	3.2	47.1

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: \_\_\_\_\_

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-289  
 UNIT TMI-1  
 DATE 01/15/91  
 COMPLETED BY W. G. Heysek  
 TELEPHONE (717) 948-8191

MONTH: DECEMBER

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
1	555.
2	556.
3	571.
4	770.
5	779.
6	777.
7	778.
8	778.
9	775.
10	774.
11	778.
12	777.
13	773.
14	778.
15	776.
16	772.

DAY	AVERAGE DAILY POWER LEVEL (MWE-NET)
17	774.
18	771.
19	770.
20	772.
21	772.
22	768.
23	749.
24	770.
25	776.
26	775.
27	774.
28	772.
29	770.
30	767.
31	769.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH December 1990

DOCKET NO. 50-289  
 UNIT NAME TMI-1  
 DATE 01/15/91  
 COMPLETED BY W. G. Heysek  
 TELEPHONE (717) 948-8191

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report#	System Code 4 & 6	Component Code 5 & 6	Cause & Corrective Action to Prevent Recurrence
90-05	12/01/90	F	72	B	4	NA	SD	HTEXCH	High feedwater level in the 10B feedwater heater initiated a power reduction to stabilize heater level, maintain condensate flow and powdex parameters within specifications. The "B" side high/low pressure feedwater strings were isolated to perform repairs. 18 tubes were identified as damaged and 13 of these tubes were found to be complete breaks.
90-06	12/23/90	S	2.08	H	4	NA			Minumum Generation Emergency declared by Reading Dispatcher
90-07	12/23/90	S	4.08	H	4	NA			Minumum Generation Emergency declared by Reading Dispatcher

1  
 F Forced  
 S Scheduled

2  
 Reason  
 A-Equipment Failure (Explain)  
 B-Maintenance or Test  
 C-Refueling  
 D-Regulatory Restriction  
 E-Operator Training & Licensing 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 1 same source  
 6 Actually used exhibits F & I: NURFG 0161

REFUELING INFORMATION REQUEST

1. Name of Facility: **Three Mile Island Nuclear Station, Unit 1**
2. Scheduled date for next refueling shutdown: **October 4, 1991 (9R)**
3. Scheduled date for restart following current refueling: **NA**
4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment? **No.**

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

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)? **No.**

If no such review has taken place, when is it scheduled? **6/1/91.**

5. Scheduled date(s) for submitting proposed licensing action and supporting information: **None planned.**
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: **GPU Nuclear intends to install four Westinghouse Lead Test Assemblies during the reload of the TMI-1 core for cycle 9 operation. Westinghouse fuel technology will be utilized to the extent possible.**
7. The number of fuel assemblies (a) in the core, and (b) in the spent fuel storage pool: **(a) 177 (b) 441**
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:  
**The present licensed capacity is 752. Planning to increase licensed capacity through fuel pool reracking is in progress.**
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity:  
**1991 is the last refueling discharge which allows full core off-load capacity (177 fuel assemblies).**