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November 15, 1995  
C311-95-2475

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 for October 1995

Enclosed are two copies of the October 1995 Monthly Operating Report for Three Mile Island Nuclear Station, Unit 1.

Sincerely,

J. Knubel  
Vice President and Director, TMI

WGH

Attachments

cc: Administrator, Region I  
TMI Senior Resident Inspector  
T95001

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OPERATIONS SUMMARY  
October 1995

The plant entered the month in a refueling shutdown condition for the 11R refueling outage in progress. The plant returned to 100% power operation on October 16 and remained at that power level for the remainder of the month. Net unit electrical output averaged approximately 788 MWe during the period that the plant operated during the month.

MAJOR SAFETY RELATED MAINTENANCE

The following is a summary of major safety related maintenance items accomplished during the month:

Fuel Activities

During examination of fuel pins during the 11R refueling outage, GPUN and Babcock & Wilcox Fuel Company (BWFC) observed a distinctive crud pattern (DCP) on first burned fuel assemblies. Nine fuel rods were found to be defective (through-wall pinhole leaks) through a combination of ultrasonic and eddy current testing. All of the defective rods were in the most recently loaded batch (Batch 12), which was installed in October 1993.

On the basis of visual examination of the initial failures detected by UT, GPUN initiated additional visual and ECT examinations. No failed rods or rods that indicated any amount of measured clad thinning (by ECT) were reinstalled in the core. GPUN made a decision that it is acceptable to reinstall rods with the DCP as long as no clad thinning was measured. Fuel assemblies with nonreusable rods were reconstituted using either stainless steel rods or irradiated "donor" fuel rods. Visual examinations of all reinsertion fuel assemblies, eddy current examinations of 266 rods and reconstitution of 20 fuel assemblies were completed on October 2. The core was redesigned using 19 of the reconstituted assemblies; eight once-burned Batch 12 assemblies were discharged and replaced with fresh assemblies at 4.0 wt.%; a Batch 11 assembly with two damaged spacer grids and its three symmetric assemblies were replaced with discharged Batch 11 assemblies. The reload analyses for the redesigned core were verified by BWFC and evaluated as acceptable under 10 CFR 50.59 by GPUN. A total of 87 rods in reinstalled assemblies were replaced with stainless steel rods and no more than ten stainless steel rods were inserted in any one fuel assembly, as allowed by License Amendment No. 183 (implementing the provisions of Generic Letter 90-02).

Refueling Activities

The reactor vessel head was reinstalled and tensioned, the insulation was replaced and the head cooling fans reconnected. The Intermediate Closed Cooling Water and electrical connections were made up at the CRDMs. The CRDMs and axial power shaping rods were recoupled. The reactor vessel missile shields were returned to their position above the reactor vessel.

### Once Through Steam Generators

The Once Through Steam Generators RC-H-1A/B manway and handhole covers that were removed during the outage to accomodate tube inspection activities were reinstalled and torqued.

### Letdown Isolation Valve MU-V-113

To eliminate the leakage at the body to bonnet interface on Letdown Isolation Valve MU-V-113 the studs were removed one at a time and replaced. Studs and nuts of a boric acid resistant material were used thus eliminating the fastener wastage identified during the operating cycle. All fasteners were torqued in accordance with Plant Engineering direction.

### Decay Heat System Suction Valve DH-V-1

Decay Heat System Suction valve DH-V-1 bonnet studs were retorqued to eliminate minor leakage at the pressure seal ring area. Post maintenance inspection found no evidence of leakage at system pressure and temperature.

### 11R Refueling Outage Bus Work

Bus outages were completed on the 1A, 1B, 1C and 1D Inverters during October as part of the 11R Outage maintenance activities.

### Miscellaneous 11R Repair Items

Additional repair activities accomplished during the 11R Outage included the completion of items in the following work scope catagories;

1. 46 of 46 Motor Operated Valves were repaired. 27 of 27 Generic Letter 89-10 designated valves were inspected, preventative maintenance tasks were performed and seven motor operators were overhauled.
2. 30 of 30 MOVATS Valve Operators were tested.
3. 19 of 19 Technical Specification Snubber tests were completed.
4. 69 of 69 Local Leak Rate Tests were performed on identified components.
5. 101 of 101 miscellaneous valves were repacked.

OPERATING DATA REPORT

DOCKET NO. 50-289  
 DATE \_\_\_\_\_  
 COMPLETED BY W G HEYSEK  
 TELEPHONE (717) 948-8191

OPERATING STATUS

- 1. UNIT NAME: THREE MILE ISLAND UNIT 1
- 2. REPORTING PERIOD: OCTOBER 1995
- 3. LICENSED THERMAL POWER: 2568
- 4. NAMEPLATE RATING (GROSS MWe): 872
- 5. DESIGN ELECTRICAL RATING (NET MWe): 819
- 6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWe): 834
- 7. MAXIMUM DEPENDABLE CAPACITY (NET MWe): 786

NOTES:

- 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

|  |       | THIS MONTH | YR-TO-DATE | CUMMULATIVE |
|--|-------|------------|------------|-------------|
| 11. HOURS IN REPORTING PERIOD            | (HRS) | 745.0      | 7296.0     | 185521.0    |
| 12. NUMBER OF HOURS REACTOR WAS CRITICAL | (HRS) | 470.5      | 6490.4     | 108079.1    |
| 13. REACTOR RESERVE SHUTDOWN HOURS       | (HRS) | 0.0        | 0.0        | 2284.0      |
| 14. HOURS GENERATOR ON-LINE              | (HRS) | 444.2      | 6462.2     | 106917.3    |
| 15. UNIT RESERVE SHUTDOWN HOURS          | (HRS) | 0.0        | 0.0        | 0.0         |
| 16. GROSS THERMAL ENERGY GENERATED       | (MWH) | 1090270    | 16442185   | 262358456   |
| 17. GROSS ELECTRICAL ENERGY GENERATED    | (MWH) | 364319     | 5499888    | 88183142    |
| 18. NET ELECTRICAL ENERGY GENERATED      | (MWH) | 338797     | 5187240    | 82842658    |
| 19. UNIT SERVICE FACTOR                  | (%)   | 59.6       | 88.6       | 57.6        |
| 20. UNIT AVAILABILITY FACTOR             | (%)   | 59.6       | 88.6       | 57.6        |
| 21. UNIT CAPACITY FACTOR (USING MDC NET) |       | 57.9       | 90.5       | 56.8        |
| 22. UNIT CAPACITY FACTOR (USING DER NET) |       | 55.5       | 86.8       | 54.5        |
| 23. UNIT FORCED OUTAGE RATE              | (%)   | 0.0        | 0.0        | 36.2        |
| UNIT FORCED OUTAGE HOURS                 | (HRS) | 0.0        | 0.0        | 60761.2     |

- 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 \_\_\_\_\_  
 COMPLETED BY W G HEYSEK  
 TELEPHONE (717) 948-8191

MONTH: OCTOBER

| DAY | AVERAGE DAILY POWER LEVEL<br>(MWe-NET) | DAY | AVERAGE DAILY POWER LEVEL<br>(MWe-NET) |
|-----|--|-----|--|
| 1   | -4                                     | 17  | 814                                    |
| 2   | -4                                     | 18  | 813                                    |
| 3   | -4                                     | 19  | 811                                    |
| 4   | -7                                     | 20  | 806                                    |
| 5   | -9                                     | 21  | 813                                    |
| 6   | -4                                     | 22  | 815                                    |
| 7   | -8                                     | 23  | 812                                    |
| 8   | -9                                     | 24  | 808                                    |
| 9   | -18                                    | 25  | 814                                    |
| 10  | -26                                    | 26  | 818                                    |
| 11  | -40                                    | 27  | 809                                    |
| 12  | -42                                    | 28  | 807                                    |
| 13  | 77                                     | 29  | 814                                    |
| 14  | 514                                    | 30  | 816                                    |
| 15  | 673                                    | 31  | 816                                    |
| 16  | 808                                    |     |  |

REPORT MONTH October 1995

DOCKET NO. 50-289  
 UNIT NAME TMI-1  
 DATE  
 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<br>' & ' | Component Code<br>' & ' | Cause & Corrective Action to Prevent Recurrence   |
|-------|---------|-------------------|------------------|---------------------|--|------------------------|----------------------|-------------------------|---|
| 95-01 | 9-08-95 | S                 | 300.8            | C                   | 1  | None                   | NA                   | NA                      | The unit continued its refueling and maintenance outage until returning to operation at 1249 on October 13, 1995. |

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 I same source

6 Actually used exhibits F & II NUREG 0161

REFUELING INFORMATION REQUEST

1. Name of Facility: **Three Mile Island Nuclear Station, Unit 1**
2. Scheduled date for next refueling shutdown: **September 12, 1997**
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? **NA.**
5. Scheduled date(s) for submitting proposed licensing action and supporting information: **NA**
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: **None.**
7. The number of fuel assemblies (a) in the core, and (b) in the spent fuel storage pool: (a) **177** (b) **683**
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 1990. Phase I of the reracking project to increase spent fuel pool storage capacity permits storage of 1342 assemblies. Upon completion of Phase II of the reracking project, the full licensed capacity will be attained. Phase II is expected to be started in 2002.

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

Completion of Phase I of the reracking project permits full core off-load (177 fuel assemblies) through the end of Cycle 14 and on completion of the rerack project full core off-load is assured through the end of the current operating license and beyond.