May 6, 1980
TLL 218

THI Program Office
Attn: J. T. Collins, Deputy Program Manager
U. S. Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, Pa. 17057

Dear Sir:

Three Mile Island Nuclear Station, Unit II (TMI-2)
Operating License No. DPR-73
License No. 50-320
Water Processing Systems Operational Performance

Enclosed please find operational performance summaries of both the EPICOR I and EPICOR II water processing systems through April 14, 1980. These summaries represent cumulative totals since the commencement of systems operations.

Performance of both water processing systems has been satisfactory. We anticipate continued successful system operations.

Sincerely,

G. K. Hovey
Director, TMI-II

GKH: LJI: hah
Enclosure

cc: B. J. Snyder
EPICOR I RADWASTE SYSTEM

Summary of Operation as of April 14, 1980

Date Commenced Processing Water------------------------April 6, 1979

WATER PROCESSING

Water Processed--------------------------------------------934,524 gals.

Unit II Water Processed--------------------------------------159,683 gals.

Inleakage of Water to be Processed

TMI Unit I----------------------------------------2,700 GPD

TMI Unit II----------------------------------------180 GPD

Total Gallons through System including Recycle-------------1,690,984 gals.

Processing Rate------------------------------------------10 GPM

Net Radwaste System Processing Rate----------------------1.76 GPM

Curies Removed by System (Long Half-Life)------------------103 Ci

Processed Water Disposition-----------------------------Released to River

SOLID RADWASTE

Spent Resin Liners----------------------------------------19

Avg. Curie Loading--------------------------------------5.4 Curies per Liner

Liner Throughput----------------------------------------49,185 Gallons per Liner

Spent Filter Liners--------------------------------------11

Liner Throughput----------------------------------------84,957 Gallons per Liner
EPICOR II RADWASTE SYSTEM

Summary of Operation
as of April 14, 1980

Date Commenced Processing Water-----------------October 22, 1979

WATER PROCESSING

Auxiliary Building Water Processed-----------------189,213 gals.
Aux. & Fuel Handling Bldg. Water to be Proc.-------253,691 gals.
Inleakage of Water to be Processed----------------- 160 GPD
Total Gals. through System including Recycle-------675,036 gals.
Number of Batches--------------------------------- 29
Curies Removed by System-------------------------- 20,760 Ci
Curies to be Removed------------------------------- 28,009 Ci
Processing Rate----------------------------------- 10 GPM
Net Radwaste System Processing Rate--------------- 0.75 GPM

Processed Water Disposition

In BWST------------------------------------------ 20,000 gal.
In 'B' SFP---------------------------------------- 205,000 gal.

PERSONNEL EXPOSURE (As of March 15, 1980)

Total Man Rem Exposure-------------------------- 8.1 Man Rem
Operation----------------------------------------- 1.4
Liner Changeout---------------------------------- 3.0
Maintenance--------------------------------------- 3.7
Man Rem Exposure per Gal. Processed-------------- 0.05 Man-Millirem
Total Man Rem Exp. per Curie Removed------------- 0.47 Man-Millirem
Projected Man Rem Exposure for Total Curies to be Processed--- 12.5 Man Rem

SOLID WASTE PRODUCED

Spent Resin Liners------------------------------- 37
  Avg. Curie Loading------------------------------- 561 Ci per Liner
  Liner Throughput------------------------------- 5,100 Gal. per Liner
Micron Filters----------------------------------- 11
Resin Traps-------------------------------------- 4
<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Gallons Processed</td>
<td>44,000</td>
<td>40,000</td>
<td>11,115</td>
<td>64,915</td>
<td>160,030</td>
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<td>Exposure Breakdown B Category (mrem)</td>
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<tr>
<td>Sampling</td>
<td>157 5%</td>
<td>68 3%</td>
<td>554 55%</td>
<td>639 45%</td>
<td>1,418 17%</td>
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<tr>
<td>Liner c/o</td>
<td>859 28%</td>
<td>1,071 42%</td>
<td>308 30%</td>
<td>721 52%</td>
<td>2,958 37%</td>
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<td>Maintenance</td>
<td>2,060 67%</td>
<td>1,416 55%</td>
<td>155 15%</td>
<td>40 3%</td>
<td>3,681 46%</td>
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<td>TOTAL</td>
<td>3,076</td>
<td>2,565</td>
<td>1,017</td>
<td>1,400</td>
<td>8,058</td>
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<td>Liners Used</td>
<td>3</td>
<td>12</td>
<td>7</td>
<td>12</td>
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<td>Gal./liner</td>
<td>1,4666</td>
<td>3,333</td>
<td>1,587</td>
<td>5,409</td>
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<td>mrem/gal.</td>
<td>.07</td>
<td>.064</td>
<td>.091</td>
<td>.021</td>
<td>.050</td>
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<td>Gal/mrem.</td>
<td>14.3</td>
<td>15.5</td>
<td>10.9</td>
<td>46.3</td>
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<td>Curies Removed</td>
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<td>3,647</td>
<td>1,717</td>
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<td>Curie/mrem.</td>
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<td>1.4</td>
<td>1.6</td>
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<td>.59</td>
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**EPICOR II - OPERATIONAL SUMMARY**

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<tr>
<th>Batch</th>
<th>Source</th>
<th>Date</th>
<th>Cell</th>
<th>Out</th>
<th>Batch</th>
<th>Source</th>
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**Legend:**

- **A**: Central Pressure Changeout (P 2,314)
- **B**: Unit 43 (6k Value Maintenance)
- **C**: Retail Unit Changeout
- **D**: Unit 43 (6k Value Maintenance)
- **E**: Shift Level Incident
- **F**: Sump Level Incident
- **G**: Incident
- **H**: Repair
- **I**: Inspection
- **J**: Paint
- **K**: Unit 43 (6k Value Maintenance)
- **L**: Unit 43 (6k Value Maintenance)
- **M**: Unit 43 (6k Value Maintenance)
- **N**: Unit 43 (6k Value Maintenance)
- **O**: Unit 43 (6k Value Maintenance)

*Note: The diagram includes various data points and columns for time-related and operational activities, but the details are not fully legible due to the handwriting style.*
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<thead>
<tr>
<th>BATCH #</th>
<th>GALLONS</th>
<th>FLOW RATE (GPM)</th>
<th>SOURCE</th>
<th>P/L</th>
<th>P/F</th>
<th>PRE/FILTER</th>
<th>DEMIN 1 - DF</th>
<th>DEMIN 2 - DS</th>
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**LINER CHANGEOUT DATA:**

- **GALLON THRU LINER:**
- **CURVES DERATED:**
- **CHANGEOUT DATE:**
- **REASON FOR CHANGEOUT:**
  1) approaching curve limit
  2) chemical concerns
  3) level probe problems
  4) removed for outage