

NUMBER OF PERSONNEL AND MAN-REM BY WORK AND JOB FUNCTION  
1988

BOSTON EDISON COMPANY  
PILGRIM NUCLEAR POWER STATION

DOCKET NO. 50-293  
LICENSE NO. DPR-35

| WORK & JOB FUNCTION | NUMBER OF PERSONNEL  |                      |                                     | CONTRACT<br>& OTHERS | TOTAL MAN-REM    |                      |                      | CONTRACT<br>& OTHERS | TOTAL<br>MAN-REM |
|---------------------|----------------------|----------------------|-------------------------------------|----------------------|------------------|----------------------|----------------------|----------------------|------------------|
|                     | STATION<br>EMPLOYEES | UTILITY<br>EMPLOYEES | (>100 mrem)<br>CONTRACT<br>& OTHERS |                      | TOTAL<br>PERSONS | STATION<br>EMPLOYEES | UTILITY<br>EMPLOYEES |                      |                  |

REACTOR OPERATIONS & SURV.

|                          |    |    |    |       |        |       |
|--------------------------|----|----|----|-------|--------|-------|
| MAINTENANCE PERSONNEL    | 3  | 1  | 9  | 0.954 | 0.193  | 3.431 |
| OPERATING PERSONNEL      | 22 | 27 | 3  | 7.633 | 10.755 | 2.097 |
| HEALTH PHYSICS PERSONNEL | 25 | 5  | 14 | 6.264 | 1.101  | 4.630 |
| SUPERVISORY PERSONNEL    | 5  | 1  | 0  | 2.304 | 0.576  | 0.395 |
| ENGINEERING PERSONNEL    | 9  | 4  | 5  | 3.102 | 1.667  | 1.492 |

ROUTINE MAINTENANCE

|                          |    |    |     |        |       |        |
|--------------------------|----|----|-----|--------|-------|--------|
| MAINTENANCE PERSONNEL    | 81 | 6  | 187 | 33.256 | 2.910 | 94.213 |
| OPERATING PERSONNEL      | 13 | 23 | 16  | 3.641  | 5.372 | 8.363  |
| HEALTH PHYSICS PERSONNEL | 36 | 5  | 28  | 11.438 | 1.340 | 8.433  |
| SUPERVISORY PERSONNEL    | 7  | 2  | 6   | 2.459  | 0.625 | 2.445  |
| ENGINEERING PERSONNEL    | 11 | 3  | 14  | 3.531  | 1.259 | 5.830  |

IN-SERVICE INSPECTION

|                          |   |   |   |       |       |       |
|--------------------------|---|---|---|-------|-------|-------|
| MAINTENANCE PERSONNEL    | 0 | 0 | 5 | 0.020 | 0.000 | 1.660 |
| OPERATING PERSONNEL      | 0 | 0 | 0 | 0.000 | 0.000 | 0.055 |
| HEALTH PHYSICS PERSONNEL | 0 | 0 | 0 | 0.065 | 0.000 | 0.135 |
| SUPERVISORY PERSONNEL    | 0 | 0 | 0 | 0.030 | 0.000 | 0.015 |
| ENGINEERING PERSONNEL    | 0 | 0 | 0 | 0.045 | 0.047 | 0.025 |

|         |   |   |   |   |       |       |       |       |
|---------|---|---|---|---|-------|-------|-------|-------|
| * TOTAL | 0 | 0 | 5 | 5 | 0.160 | 0.047 | 1.890 | 2.097 |
|---------|---|---|---|---|-------|-------|-------|-------|

SPECIAL MAINTENANCE

|                          |    |    |    |        |       |        |
|--------------------------|----|----|----|--------|-------|--------|
| MAINTENANCE PERSONNEL    | 37 | 3  | 69 | 13.373 | 1.040 | 28.424 |
| OPERATING PERSONNEL      | 7  | 17 | 10 | 1.722  | 3.452 | 2.736  |
| HEALTH PHYSICS PERSONNEL | 18 | 3  | 5  | 6.692  | 1.044 | 2.055  |
| SUPERVISORY PERSONNEL    | 3  | 2  | 3  | 1.040  | 0.647 | 1.445  |
| ENGINEERING PERSONNEL    | 8  | 4  | 6  | 3.349  | 1.233 | 2.023  |

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| WORK & JOB FUNCTION      | NUMBER OF PERSONNEL  |                      |                                     | CONTRACT<br>& OTHERS | TOTAL<br>PERSONS | TOTAL MAN-REM        |                      |  | CONTRACT<br>& OTHERS | TOTAL<br>MAN-REM |
|--------------------------|----------------------|----------------------|-------------------------------------|----------------------|------------------|----------------------|----------------------|--|----------------------|------------------|
|                          | STATION<br>EMPLOYEES | UTILITY<br>EMPLOYEES | (>100 mrem)<br>CONTRACT<br>& OTHERS |                      |                  | STATION<br>EMPLOYEES | UTILITY<br>EMPLOYEES |  |                      |                  |
| WASTE PROCESSING         |                      |                      |                                     |                      |                  |                      |                      |  |                      |                  |
| MAINTENANCE PERSONNEL    | 8                    | 0                    | 8                                   |                      |                  | 2.420                | 0.010                |  | 2.986                |                  |
| OPERATING PERSONNEL      | 6                    | 1                    | 1                                   |                      |                  | 1.580                | 0.175                |  | 0.180                |                  |
| HEALTH PHYSICS PERSONNEL | 1                    | 1                    | 3                                   |                      |                  | 0.669                | 0.330                |  | 2.155                |                  |
| SUPERVISORY PERSONNEL    | 1                    | 0                    | 0                                   |                      |                  | 0.305                | 0.000                |  | 0.015                |                  |
| ENGINEERING PERSONNEL    | 0                    | 0                    | 0                                   |                      |                  | 0.047                | 0.075                |  | 0.000                |                  |
| TOTAL                    | 16                   | 2                    | 12                                  |                      | 30               | 5.021                | 0.590                |  | 5.336                | 10.947           |
| REFUELLING               |                      |                      |                                     |                      |                  |                      |                      |  |                      |                  |
| MAINTENANCE PERSONNEL    | 0                    | 0                    | 0                                   |                      |                  | 0.000                | 0.000                |  | 0.490                |                  |
| OPERATING PERSONNEL      | 0                    | 0                    | 0                                   |                      |                  | 0.000                | 0.000                |  | 0.040                |                  |
| HEALTH PHYSICS PERSONNEL | 0                    | 0                    | 0                                   |                      |                  | 0.010                | 0.000                |  | 0.130                |                  |
| SUPERVISORY PERSONNEL    | 0                    | 0                    | 0                                   |                      |                  | 0.000                | 0.000                |  | 0.000                |                  |
| ENGINEERING PERSONNEL    | 0                    | 0                    | 0                                   |                      |                  | 0.000                | 0.000                |  | 0.000                |                  |
| TOTAL                    | 0                    | 0                    | 0                                   |                      | 0                | 0.010                | 0.000                |  | 0.660                | 0.670            |
| TOTAL BY JOB FUNCTION    |                      |                      |                                     |                      |                  |                      |                      |  |                      |                  |
| MAINTENANCE PERSONNEL    | 129                  | 10                   | 278                                 |                      | 417              | 50.023               | 4.153                |  | 131.204              | 185.380          |
| OPERATING PERSONNEL      | 48                   | 68                   | 30                                  |                      | 146              | 14.576               | 19.754               |  | 13.471               | 47.801           |
| HEALTH PHYSICS PERSONNEL | 80                   | 14                   | 50                                  |                      | 144              | 25.138               | 3.815                |  | 17.538               | 46.491           |
| SUPERVISORY PERSONNEL    | 16                   | 5                    | 9                                   |                      | 30               | 6.138                | 1.848                |  | 4.315                | 12.301           |
| ENGINEERING PERSONNEL    | 28                   | 11                   | 25                                  |                      | 64               | 10.074               | 4.281                |  | 9.370                | 23.725           |
| GRAND TOTAL              | 301                  | 108                  | 392                                 |                      | 801              | 105.949              | 33.851               |  | 175.898              | 315.698          |

- \* The "Special Maintenance" Category Includes the Following Work:
- Prepare and Paint A & B RHR Quads
  - Prepare and Paint Torus Compartment
  - Inspect/Replace Environmentally Qualified Motor Operated Valves
  - Repair A & B Recirculation Pumps
  - Torus Vent
  - Penetration Support Inspection
  - Fuel Pool Cooling Pump Replacement
  - Replace Control Rod Drive
  - Photo Documentation - Surrogate Tour
  - Main Steam Line Snubbers



**BOSTON EDISON**

Pilgrim Nuclear Power Station  
Rocky Hill Road  
Plymouth, Massachusetts 02360

**K. L. Highfill**  
Station Director

March 1, 1989  
BECO Ltr 89- 023

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

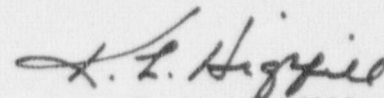
Docket No. 50-293  
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Dear Sir:

The enclosed table, "Number of Personnel and Man-Rem by Work and Job Function 1988", is submitted in accordance with the requirements of the Pilgrim Nuclear Power Station Technical Specifications, Section 6.9.A.3, and as recommended by U.S. NRC Regulatory Guide 1.16.

The collective dose measured by TLD for Pilgrim Nuclear Power Station in calendar year 1988 totaled 391.531, of which 1.326 rem was NRC dose for a station total of 390.205. The accumulated dose for station, utility and contractor personnel assigned to radiation work permits during 1988 totaled 315.698 man-rem. Eighty-one percent (81%) of the total station dose was accounted for via radiation work permits and assigned to specific major work functions.

Please do not hesitate to contact me directly if you have any questions.

  
K. L. Highfill

BPL/bal

Enclosure: Number of Personnel and Man-Rem by Work and Job Function 1988

cc: Mr. William Russell  
Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Rd.  
King of Prussia, PA 19406

Sr. NRC Resident Inspector - Pilgrim Station

Standard BECo Distribution

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