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IMPINGEMENT MONITORING PROGRAM

REPORT NO. 14 - MAY 1978

SALEM NUCLEAR GENERATING STATION
UNIT NO. 1

DOCKET NO. 50-272
OPERATING LICENSE NO. DPR-70

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
NEWARK, NEW JERSEY
JUNE 20, 1978

SUMMARY

This is the fourteenth monthly impingement monitoring program report required by Section 3.1.2.2 of the Environmental Technical Specifications (ETS). The ETS are Appendix B of the Salem Nuclear Generating Station (SNGS) Operating License No. DPR-70. The tabular summaries attached include daily estimates of the number and weight of fish impinged on the Service Water System (SWS) traveling screens (Table 3).

The monitoring program at the SWS consisted of three 24-hour sampling periods per week. SWS screen samples consisted of either one 24-hour or two 12-hour samples per day. These samples consisted of all fish impinged and found in the trash baskets located on the intake structure proper during the regularly scheduled sampling periods.

On March 16, 1978, SNGS commenced a forced outage to initiate turbine blading repairs. CWS samples were not collected during the outage as the CWS intake was not in service during regularly scheduled sampling periods. Due to station outage, Tables 1 and 2 are not provided this month.

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TABLE 3. - IMPINGEMENT - S.N.G.S. SERVICE WATER SYSTEM INTAKE, 1 MAY 1978 TO 31 MAY 1978.

SAMPLING PERIOD - 05/02/78 0830 TO 05/03/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| R. MARGINATA | 6 | 126.50 | 6.5 | 33.7 | 112.5 | 197.5 |
| P. DENTATUS | 2 | 116.20 | 23.2 | 95.0 | 147.5 | 237.5 |
| A. MITCHELLI | 2 | 6.50 | 3.0 | 3.5 | 77.5 | 77.5 |
| M. AMERICANA | 1 | 3.60 | 3.6 | 3.6 | 67.5 | 67.5 |
| T. MACULATUS | 2 | 126.50 | 49.5 | 77.0 | 127.5 | 157.5 |
| C. SAPIDUS | 1 | 6.10 | 6.1 | 6.1 | 37.5 | 37.5 |
| TOTAL | 14 | 387.40 | | | | |

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/03/78 0830 TO 05/04/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| U. CHUSS | 2 | 24.50 | 11.2 | 13.3 | 127.5 | 147.5 |
| T. MACULATUS | 2 | 22.80 | 2.6 | 20.2 | 52.5 | 102.5 |
| C. SAPIDUS | 2 | 15.10 | 2.9 | 12.2 | 37.5 | 42.5 |
| TOTAL | 6 | 62.40 | | | | |

IMPINGEMENT MONITORING PROGRAM
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PSE&G, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/04/78 0830 TO 05/05/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|---------------|--------|----------|--------|-------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| A. ROSTRATA | 1 | 136.00 | 136.0 | 136.0 | 437.5 | 437.5 |
| A. AESTIVALIS | 1 | 62.50 | 62.5 | 62.5 | 187.5 | 187.5 |
| R. MARGINATA | 1 | 41.00 | 4.1 | 4.1 | 207.5 | 207.5 |
| U. CHUSS | 2 | 24.50 | 6.0 | 18.5 | 117.5 | 142.5 |
| A. MITCHILLI | 1 | 4.00 | 4.0 | 4.0 | 82.5 | 82.5 |
| C. SAPIDUS | 1 | 4.80 | 4.8 | 4.8 | 37.5 | 37.5 |

| | | | | | | |
|-------|---|--------|--|--|--|--|
| TOTAL | 7 | 272.80 | | | | |
|-------|---|--------|--|--|--|--|

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

TABLE 5. - (CONTINUED).

SAMPLING PERIOD - 05/09/78 0830 TO 05/10/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|-------------------|--------|----------|--------|------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| P. NIGROMACULATUS | 1 | 40.60 | 40.6 | 40.6 | 142.5 | 142.5 |
| U. CHUSS | 1 | 13.90 | 13.9 | 13.9 | 137.5 | 137.5 |
| A. MITCHILLI | 3 | 9.40 | 2.6 | 3.6 | 67.5 | 77.5 |
| E. MICROSTOMUS | 1 | 0.20 | .2 | .2 | 37.5 | 37.5 |
| C. STRIATA | 1 | 6.40 | 6.4 | 6.4 | 77.5 | 77.5 |
| C. SAPIDUS | 4 | 6.80 | .3 | 2.9 | 22.5 | 37.5 |

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|-------|----|-------|--|--|--|--|
| TOTAL | 11 | 77.30 | | | | |
|-------|----|-------|--|--|--|--|

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/10/78 0830 TO 05/11/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|-------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| A. ROSTRATA | 1 | 141.60 | 141.6 | 141.6 | 427.5 | 427.5 |
| C. STRIATA | 1 | 11.00 | 11.0 | 11.0 | 92.5 | 92.5 |
| P. DENTATUS | 2 | 71.60 | 23.3 | 48.3 | 152.5 | 172.5 |
| T. MACULATUS | 1 | 0.50 | .5 | .5 | 27.5 | 27.5 |
| C. SAPIDUS | 1 | 12.30 | 12.3 | 12.3 | 52.5 | 52.5 |

| | | | | | | |
|-------|---|--------|--|--|--|--|
| TOTAL | 6 | 237.00 | | | | |
|-------|---|--------|--|--|--|--|

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/11/78 0830 TO 05/12/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|-------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| M. AMERICANA | 1 | 95.60 | 95.6 | 95.6 | 187.5 | 187.5 |
| C. STRIATA | 1 | 9.00 | 9.0 | 9.0 | 97.5 | 97.5 |
| R. MARGINATA | 3 | 54.10 | 12.0 | 27.1 | 142.5 | 187.5 |
| P. DENTATUS | 1 | 143.40 | 143.4 | 143.4 | 242.5 | 242.5 |
| P. CAROLINUS | 1 | 15.10 | 15.1 | 15.1 | 117.5 | 117.5 |
| A. RITCHIEI | 4 | 11.00 | 1.6 | 4.7 | 57.5 | 87.5 |
| T. MACULATUS | 1 | 2.10 | 2.1 | 2.1 | 52.5 | 52.5 |

| | | | | | | |
|-------|----|--------|--|--|--|--|
| TOTAL | 12 | 330.30 | | | | |
|-------|----|--------|--|--|--|--|

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SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

TABLE 5. - (CONTINUED).

SAMPLING PERIOD - 05/15/78 0830 TO 05/16/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GK) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| P. ANNULARIS | 1 | 45.20 | 45.2 | 45.2 | 147.5 | 147.5 |
| A. MITCHILLI | 1 | 3.50 | 3.5 | 3.5 | 72.5 | 72.5 |
| C. SYRIATA | 1 | 4.10 | 4.1 | 4.1 | 67.5 | 67.5 |
| R. MARGINATA | 1 | 34.50 | 34.5 | 34.5 | 187.5 | 187.5 |
| ----- | | | | | | |
| TOTAL | 4 | 87.30 | | | | |

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PSE66, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/16/78 0830 TO 05/17/78 0830

NUMBER OF PURPS 2 - 2

| SPECIES | NUMBER | WT. (GR) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| A. MITCHILLI | 1 | 3.80 | 3.8 | 3.8 | 72.5 | 72.5 |
| C. STRIATA | 1 | 10.10 | 10.1 | 10.1 | 92.5 | 92.5 |
| A. ROSTRATA | 1 | 68.20 | 68.2 | 68.2 | 337.5 | 337.5 |
| T. MACULATUS | 2 | 2.00 | .7 | 1.3 | 32.5 | 42.5 |
| TOTAL | 5 | 84.10 | | | | |

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PSEG, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/17/78 0830 TO 05/18/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GR) | WEIGHT | | LENGTH | |
|----------------|--------|----------|--------|-------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| A. AESTIVALIS | 1 | 129.90 | 129.9 | 129.9 | 237.5 | 237.5 |
| A. ROSTRATA | 1 | 35.80 | 35.8 | 35.8 | 277.5 | 277.5 |
| L. MACROCHIRUS | 1 | 58.30 | 58.3 | 58.3 | 137.5 | 137.5 |
| T. MACULATUS | 3 | 70.50 | .4 | 35.3 | 32.5 | 147.5 |
| A. MITCHILLI | 3 | 6.00 | .9 | 3.0 | 52.5 | 72.5 |
| ----- | | | | | | |
| TOTAL | 9 | 300.50 | | | | |

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PSE&G, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/22/78 0830 TO 05/23/78 0830

NUMBER OF PUMPS 2 - 3

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| A. ROSTRATA | 2 | 106.30 | 52.1 | 54.2 | 317.5 | 317.5 |
| A. MITCHILLI | 6 | 12.20 | 1.6 | 3.3 | 57.5 | 67.5 |
| Y. MACULATUS | 5 | 6.10 | .6 | 1.7 | 37.5 | 52.5 |
| TOTAL | 13 | 124.60 | | | | |

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/23/78 0830 To 05/24/78 0830

NUMBER OF PUMPS 3 - 3

| SPECIES | NUMBER | WT.(GM) | WEIGHT | | LENGTH | |
|--------------|--------|---------|--------|-------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| B. TYRANNUS | 4 | 269.90 | 14.3 | 114.4 | 107.5 | 192.5 |
| M. AMERICANA | 3 | 32.50 | 5.5 | 13.9 | 77.5 | 107.5 |
| A. MITCHILLI | 9 | 25.40 | 2.0 | 6.8 | 57.5 | 87.5 |
| A. ROSTRATA | 5 | 515.60 | 30.1 | 206.1 | 282.5 | 497.5 |
| C. SAPIDUS | 1 | 1.20 | 1.2 | 1.2 | 22.5 | 22.5 |

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|-------|----|--------|--|--|--|--|
| TOTAL | 22 | 844.60 | | | | |
|-------|----|--------|--|--|--|--|

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SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/24/78 0830 TO 05/25/78 0830

NUMBER OF PUMPS 2 - 3

| SPECIES | NUMBER | WT.(GM) | WEIGHT | | LENGTH | |
|----------------|--------|---------|--------|-------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| A. ROSTRATA | 1 | 429.40 | 429.4 | 429.4 | 582.5 | 582.5 |
| A. NESTIVALIS | 1 | 194.00 | 194.0 | 194.0 | 262.5 | 262.5 |
| L. MACROCHIRUS | 1 | 29.20 | 29.2 | 29.2 | 112.5 | 112.5 |
| B. TYRANNUS | 1 | 24.50 | 24.5 | 24.5 | 117.5 | 117.5 |
| A. MITCHILLI | 9 | 25.00 | .9 | 6.0 | 42.5 | 82.5 |
| T. MACULATUS | 9 | 14.20 | .5 | 3.0 | 32.5 | 52.5 |
| C. SAPIOUS | 2 | 22.30 | 8.6 | 13.7 | 47.5 | 57.5 |

| | | | | | | |
|-------|----|--------|--|--|--|--|
| TOTAL | 24 | 738.60 | | | | |
|-------|----|--------|--|--|--|--|

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/30/78 0900 TO 05/31/78 0900

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|------|--------|-------|
| | | | MIN. | MAX. | MIN. | MAX. |
| B. TYRANNUS | 4 | 167.80 | 53.0 | 53.0 | 172.5 | 172.5 |
| A. ROSTRATA | 1 | 44.00 | 44.0 | 44.0 | 302.5 | 302.5 |
| A. MITCHELLI | 1 | 2.30 | 2.3 | 2.3 | 72.5 | 72.5 |
| T. MACULATUS | 4 | 4.70 | .1 | 1.9 | 27.5 | 52.5 |

| | | | | | | |
|-------|----|--------|--|--|--|--|
| TOTAL | 10 | 218.80 | | | | |
|-------|----|--------|--|--|--|--|

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 05/31/78 0830 TO 06/01/78 0830

NUMBER OF PUMPS 2 - 2

| SPECIES | NUMBER | WT. (GM) | WEIGHT | | LENGTH | |
|--------------|--------|----------|--------|------|--------|------|
| | | | MIN. | MAX. | MIN. | MAX. |
| T. MACULATUS | 2 | 4.00 | 1.8 | 2.2 | 47.5 | 52.5 |
| M. AMERICANA | 1 | 5.40 | 5.4 | 5.4 | 72.5 | 72.5 |
| TOTAL | 3 | 9.40 | | | | |

IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

DATA IGNORED - IN CONTROL MODE

6BRKPT PRINTS