

IMPINGEMENT MONITORING PROGRAM

REPORT NO. 12 - MARCH 1978

SALEM NUCLEAR GENERATING STATION  
UNIT NO. 1

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

50-272  
Docket #  
Control #  
Date 4/20/78 of Document  
REGULATORY DOCKET FILE

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

## SUMMARY

This is the twelfth 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 Circulating Water System (CWS) traveling screens (Table 2) and the Service Water System (SWS) traveling screens (Table 3). CWS operation is also summarized (Table 1).

The monitoring program at both the CWS and SWS consisted of three 24-hour sampling periods per week. The CWS screens were sampled four times per 24-hour period at approximately six-hour intervals. Samples were collected by diverting approximately three minutes of screen wash water to the counting pool located on the north end of the CWS intake structure. Survival rates were calculated for CWS samples only. 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.

On March 16, 1978, SNGS commenced a forced outage to initiate turbine blading repairs. CWS samples were collected during the outage if the CWS intake was in service during regularly scheduled sampling periods. SWS samples were collected on the regular ETS monitoring schedule.

MDL:aec

TABLE 1. - START TIME AND DURATION OF IMPINGEMENT SAMPLES AT THE CIRCULATING WATER INTAKE, S.W.G.S. UNIT 1  
1 MARCH THROUGH 31 MARCH 1978. NUMBER OF PUMPS AND SCREENS IN OPERATION, SCREEN OPERATING MODE  
(I= INTERMITTENT, C= CONTINUOUS), WEIGHT (G/3 MIN. SAMPLE) OF DETRITUS, AND WATER TEMPERATURE (C)  
ARE INDICATED.

DATE	SAMPLE START TIME	DUR. (MIN)	PUMPS	SCREENS	OPERATING MODE	DETRITUS WEIGHT (G/3 MIN SAMPLE)	WATER TEMPERATURE (C)
03/01/78	1200	3	6	6	C	6,300	2.7
03/01/78	1810	3	5	5	C	2,400	3.0
03/02/78	0000	3	5	5	C	16,500	2.9
03/02/78	0600	3	6	6	C	16,400	3.5
03/02/78	1200	3	6	6	C	5,800	2.8
03/02/78	1800	3	6	6	C	3,200	3.0
03/03/78	0000	3	6	6	C	10,000	2.5
03/03/78	0600	3	6	6	C	2,000	2.1
03/06/78	1200	3	6	6	C	19,200	1.0
03/06/78	1800	3	6	6	C	17,000	1.0
03/07/78	0000	3	6	6	C	18,000	0.9
03/07/78	0600	3	6	6	C	3,000	0.3
03/08/78	1200	3	6	6	C	4,000	1.0
03/08/78	1800	3	6	6	C	2,200	2.0
03/09/78	0000	3	6	6	C	1,800	0.8
03/09/78	0600	3	6	6	C	5,300	1.0
03/09/78	1200	3	6	6	C	500	1.2
03/09/78	1800	3	5	5	C	15,000	2.0
03/10/78	0000	3	6	6	C	2,200	1.1
03/10/78	0600	3	6	6	C	32,000	1.1
03/13/78	1210	3	5	6	C	6,800	3.5
03/13/78	1806	3	6	6	C	35,000	3.2
03/14/78	0000	3	6	6	C	1,700	2.8
03/14/78	0600	3	6	6	C	10,300	3.3
03/15/78	1210	3	6	6	C	10,200	4.2
03/15/78	1810	3	6	6	C	35,000	4.4
03/16/78	0000	3	6	6	C	7,000	4.0
03/16/78	0600	3	5	6	C	6,200	3.6
03/16/78	1208	3	3	4	C	8,000	3.7
03/16/78	1803	3	3	4	C	45,000	3.8
03/17/78	0000	3	2	4	C	1,200	3.3

IMPINGEMENT MONITORING PROGRAM  
SALEM NUCLEAR GENERATING STATION UNIT 1  
PSEB6, NEWARK, N.J.

BAS6,A 76031IMP.  
FACILITY WARNING 100000000000

BAS6,A 76031SP.  
FACILITY WARNING 100000000000

TABLE 2. - IMPINGEMENT - S.N.G.S. CIRCULATING WATER SYSTEM INTAKE, 1 MARCH 1978 TO 31 MARCH 1978.

SAMPLING PERIOD - 03/01/78 1200 THROUGH 03/02/78 0600

SPECIES	N	CF	Σ SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GP)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. AMERICANA	4	3	0	0	160	11	1320	989.5	25.19	23.7	4.2	77.2	62.5	162.5
M. NUCHALIS	4	1	0	33	66	3	360	720.0	3.71	7.4	6.0	18.7	77.5	122.5
M. SARATILIS	4	2	0	0	100	3	360	459.5	6.45	10.5	7.7	32.9	97.5	132.5
TOTAL						17	2040		35.35					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

Σ SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

IMPINGEMENT MONITORING PROGRAM  
SALEM NUCLEAR GENERATING STATION UNIT 1  
PSEB6, NEWARK, N.J.

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 03/02/78 1200 THROUGH 03/03/78 0600

SPECIES	N	CF	X SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GR)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
G. ACULEATUS	4	1	100	0	0	1	120	240.0	.21	.4	1.8	1.8	57.5	57.5
H. MUCALIS	4	2	20	20	60	5	600	908.6	9.06	12.9	6.2	25.4	87.5	127.5
M. AMERICANA	4	3	0	0	100	9	1080	989.5	35.21	63.0	2.5	138.2	62.5	192.5
M. MENIDIA	4	1	0	100	0	1	120	240.0	.32	.6	2.7	2.7	77.5	77.5
M. SAXATILIS	4	1	50	0	50	2	240	480.0	1.93	3.8	5.0	11.1	72.5	102.5
TOTAL						18	2160		46.73					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

X SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

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

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 03/06/78 1200 THROUGH 03/07/78 0600

SPECIES	N	CF	X SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GM)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. AMERICANA	4	4	10	10	80	10	1200	619.6	23.33	30.0	5.8	104.6	77.5	182.5
M. MENIDJA	4	1	0	100	0	1	120	240.0	.54	1.0	4.5	4.5	92.5	92.5
M. NUCHALIS	4	2	33	0	66	3	360	459.5	4.25	6.9	5.1	18.3	107.5	122.5
M. SAKATILIS	4	1	0	0	100	1	120	240.0	.85	1.7	7.1	7.1	92.5	92.5
TOTAL						15	1800		28.97					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

X SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

IMPINGEMENT MONITORING PROGRAM  
SALEM NUCLEAR GENERATING STATION UNIT 1  
PSEB6, NEWARK, N.J.

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 03/08/78 1200 THROUGH 03/09/78 0600

SPECIES	N	CF	X SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GM)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. AMERICANA	4	4	3	13	82	29	3480	1894.8	29.37	20.3	2.4	32.5	57.5	127.5
M. MENIDIA	4	1	100	0	0	1	120	240.0	.50	1.0	4.2	4.2	82.5	82.5
M. NUCHALIS	4	2	0	0	100	2	240	277.1	2.80	3.2	10.2	13.2	102.5	107.5
M. SAXATILIS	4	2	40	20	40	5	600	720.0	35.90	57.9	11.7	250.6	102.5	272.5
TOTAL						37	4440		68.57					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

X SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

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

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 03/09/78 1200 THROUGH 03/10/78 0600

SPECIES	N	CF	X SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GP)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. AMERICANA	4	4	15	0	84	13	1560	989.5	33.28	40.7	4.3	153.1	67.5	207.5
G. ACULEATUS	4	1	0	0	100	1	120	240.0	.18	.3	1.5	1.5	57.5	57.5
M. SAXATILIS	4	1	0	0	100	1	120	240.0	.88	1.7	7.4	7.4	82.5	82.5
TOTAL						15	1800		34.34					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

X SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

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



TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 03/13/78 1210 THROUGH 03/14/78 0600

SPECIES	N	CF	X SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GP)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. SANATILIS	4	1	0	0	100	1	120	240.0	4.44	8.8	37.0	37.0	147.5	147.5
M. AMERICANA	4	4	13	9	77	22	2640	999.1	80.91	34.6	3.1	217.3	57.5	267.5
H. NUHALIS	4	1	100	0	0	1	120	240.0	1.74	3.4	14.5	14.5	112.5	112.5
G. ACULEATUS	4	4	100	0	0	9	1080	603.9	2.44	1.8	1.0	2.7	52.5	62.5
U. CHUSS	4	2	0	0	100	2	240	277.1	1.11	1.2	4.2	5.1	87.5	92.5
M. MENIDIA	4	1	100	0	0	1	120	240.0	.26	.5	2.2	2.2	77.5	77.5
F. MAJALIS	4	1	0	0	100	1	120	240.0	.73	1.4	6.1	6.1	82.5	82.5
TOTAL						37	4440		91.63					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

X SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

IMPINGEMENT MONITORING PROGRAM  
SALEM NUCLEAR GENERATING STATION UNIT 1  
PSEB6, NEWARK, N.J.

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 03/15/78 1210 THROUGH 03/16/78 0600

SPECIES	N	CF	X SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GM)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. AMERICANA	4	4	38	7	53	90	10800	11171.3	112.13	125.0	2.6	125.9	62.5	287.5
H. NUCHALIS	4	1	100	0	0	1	120	240.0	2.34	4.6	19.5	19.5	107.5	107.5
G. ACULEATUS	4	3	100	0	0	5	600	603.9	1.59	1.6	2.2	3.7	57.5	62.5
U. CHUSS	4	1	0	0	100	1	120	240.0	.90	1.8	7.5	7.5	107.5	107.5
M. MENIDIA	4	1	0	100	0	1	120	240.0	1.08	2.1	9.0	9.0	112.5	112.5
F. MAJALIS	4	1	100	0	0	2	240	480.0	3.36	6.7	3.9	24.1	67.5	117.5
M. SAKATILIS	4	1	100	0	0	2	240	480.0	3.20	6.4	10.6	16.1	97.5	112.5
A. ROSTRATA	4	1	100	0	0	1	120	240.0	27.00	54.0	225.0	225.0	392.5	392.5
TOTAL						103	12360		151.60					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

X SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

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

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 03/16/78 1208 THROUGH 03/17/78 0000

SPECIES	N	CF	X SURVIVAL			TOTAL NUMBER COLLECTED	MEAN ESTIMATED NUMBER/ 24 HOURS	STANDARD DEVIATION	MEAN ESTIMATED WT/24 HRS (KG)	STANDARD DEVIATION	WEIGHT (GM)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. AMERICANA	3	3	61	23	15	13	2080	1685.7	21.48	16.6	3.3	55.7	67.5	157.5
M. MENIDJA	3	1	100	0	0	1	160	277.1	1.50	2.6	9.4	9.4	117.5	117.5
F. MAJALIS	3	2	100	0	0	3	480	480.0	5.86	9.1	2.6	30.1	62.5	132.5
G. ACULEATUS	3	1	0	0	100	1	160	277.1	.41	.7	2.6	2.6	62.5	62.5
E. AMERICANUS	3	1	100	0	0	1	160	277.1	2.97	5.1	18.6	18.6	137.5	137.5
U. CHUSS	3	1	100	0	0	1	160	277.1	.75	1.2	4.7	4.7	97.5	97.5
TOTAL						20	3200		32.97					

N = NUMBER OF 3-MINUTE SAMPLES.

CF = CATCH FREQUENCY (NUMBER OF SAMPLES IN WHICH THE SPECIES APPEARED).

X SURVIVAL: L = LIVE; D = DEAD; D\* = DAMAGED.

MEAN ESTIMATED NUMBER PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY MULTIPLYING THE NUMBER OF SPECIMENS IN EACH 3-MINUTE SAMPLE BY 480 TO OBTAIN A 24-HOUR ESTIMATE. THE ESTIMATED NUMBER FOR EACH SAMPLE WAS SUMMED AND DIVIDED BY THE NUMBER OF SAMPLES TO OBTAIN THE MEAN.

MEAN ESTIMATED WEIGHT PER 24 HOURS FOR EACH SPECIES WAS CALCULATED BY THE SAME METHOD AS MEAN ESTIMATED NUMBER.

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

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

SAMPLING PERIOD - 03/01/78 0730 TO 03/02/78 0730

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
G. ACULEATUS	1	2.20	2.2	2.2	62.5	62.5
M. SAXATILIS	1	9.50	9.5	9.5	87.5	87.5
M. AMERICANA	6	60.60	3.6	30.1	67.5	122.5
H. NUCHALIS	2	19.90	3.4	16.5	87.5	117.5
A. ROSTRATA	1	177.20	177.2	177.2	482.5	482.5
TOTAL	11	269.40				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/02/78 0730 TO 03/02/78 1930

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	5	222.20	1.9	198.6	52.5	222.5
H. NUCHALIS	1	6.30	6.3	6.3	82.5	82.5
P. FLAVESCENS	1	12.80	12.8	12.8	107.5	107.5
A. ROSTRATA	1	104.80	104.8	104.8	337.5	337.5
I. PUNCTATUS	1	211.70	211.7	211.7	257.5	257.5
TOTAL	9	557.80				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/03/78 1930 TO 03/04/78 0730

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	3	17.30	3.1	7.9	62.5	87.5
F. MAJALIS	1	5.20	5.2	5.2	77.5	77.5
TOTAL	4	22.50				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/06/78 C730 TO 03/07/78 0930

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	6	103.90	4.1	70.8	62.5	152.5
M. NUCHALIS	2	18.00	7.0	11.0	97.5	127.5
M. SAXATILIS	1	4.20	42.0	42.0	72.5	72.5
P. FLAVESCENS	1	6.40	64.0	64.0	87.5	87.5
M. MENJIDIA	1	5.00	50.0	50.0	92.5	92.5
F. HETEROCLITUS	1	1.60	1.6	1.6	52.5	52.5
<hr/>						
TOTAL	12	139.10				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/08/78 0730 TO 03/09/78 0730

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	23	197.30	3.6	25.2	62.5	117.5
M. MENIDIA	1	6.60	6.6	6.6	112.5	112.5
H. NUCHALIS	2	25.70	6.3	19.4	82.5	117.5
U. CHUSS	1	6.70	6.7	6.7	112.5	112.5
P. FLAVESCENS	1	7.80	7.8	7.8	92.5	92.5
TOTAL	28	244.10				

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



TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/09/78 0730 TO 03/10/78 0730

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	10	154.00	4.0	86.7	62.5	172.5
M. SAXATILIS	1	17.80	17.8	17.8	107.5	107.5
M. MENIDIA	1	6.10	6.1	6.1	102.5	102.5
H. NUHALIS	1	20.10	20.1	20.1	122.5	122.5
J. NEBULOSUS	1	87.00	86.7	86.7	77.5	77.5
U. CHUSS	1	10.50	86.7	86.7	122.5	197.5
P. FLAVESCENS	1	9.90	86.7	86.7	102.5	197.5
TOTAL	16	305.40				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/13/78 0730 TO 03/14/78 0730

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	26	234.60	3.3	35.5	62.5	132.5
M. MENIDIA	1	7.50	7.5	7.5	112.5	112.5
G. ACULEATUS	2	5.20	2.4	2.8	62.5	62.5
F. MAJALIS	13	119.20	3.1	31.2	67.5	131.5
F. HETEROCLITUS	1	1.10	1.1	1.1	52.5	52.5
TOTAL	43	367.60				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/15/78 0730 TO 03/16/78 0730

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. SAXATILIS	4	25.20	4.0	7.6	67.5	87.5
P. FLAVESCENS	1	4.80	4.8	4.8	82.5	82.5
F. MAJALIS	7	84.00	3.2	33.3	67.5	132.5
M. MENIDIA	3	18.40	4.2	7.1	87.5	107.5
M. AMERICANA	63	680.90	2.5	102.5	57.5	177.5
J. PUNCTATUS	1	288.30	288.3	288.3	292.5	292.5
U. CHUSS	3	18.40	4.3	8.8	87.5	117.5
F. HETEROCLITUS	1	12.20	12.2	12.2	97.5	97.5
G. ACULEATUS	1	1.40	14.0	14.0	52.5	52.5
TOTAL	84	1133.60				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/16/78 0730 10 03/17/78 0730

NUMBER OF PUMPS 2 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	11	69.20	2.3	12.4	57.5	92.5
F. MAJALIS	7	163.20	3.1	46.0	67.5	152.5
F. HETEROCLOTUS	1	6.50	6.5	6.5	77.5	77.5
M. MENIDIA	1	4.60	4.6	4.6	87.5	87.5
U. CHUSS	3	25.60	6.2	10.0	102.5	117.5
TOTAL	23	269.10				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/20/78 0900 TO 03/21/78 0900

NUMBER OF PUMPS 2 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
A. ROSTRATA	1	223.10	223.1	223.1	527.5	527.5
F. MAJALIS	1	28.30	28.3	28.3	122.5	122.5
M. AMERICANA	2	16.80	5.8	11.0	67.5	87.5
U. PYGMAEA	1	13.00	13.0	13.0	97.5	97.5
U. CHUSS	7	38.80	2.8	8.9	77.5	117.5
TOTAL	12	320.00				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/21/78 0900 TO 03/22/78 0900

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
F. MAJALIS	5	33.60	2.4	11.3	62.5	92.5
U. CHUSS	20	144.10	4.1	12.6	92.5	127.5
E. AMERICANUS	1	22.60	22.6	22.6	157.5	157.5
M. AMERICANA	2	11.30	3.6	7.7	72.5	72.5
D. CEPEDIANUM	1	44.60	44.0	44.0	157.5	157.5
U. PYGMAEA	1	2.80	2.8	2.8	57.5	57.5
TOTAL	30	258.40				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/22/78 0900 TO 03/23/78 0900

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
F. MAJALIS	5	53.50	4.0	18.2	67.5	107.5
M. AMERICANA	1	5.20	5.2	5.2	77.5	77.5
U. CHUSS	15	111.30	3.0	18.8	67.5	142.5
TOTAL	21	170.00				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/27/78 0900 TO 03/28/78 0900

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
A. AESTIVALIS	26	101.20	2.8	6.1	62.5	92.5
A. PSEUDOHARENGUS	1	250.00	250.0	250.0	262.5	262.5
P. ANNULARIS	1	31.70	31.7	31.7	142.5	142.5
M. AMERICANA	5	46.50	3.8	26.7	62.5	122.5
TOTAL	33	429.40				

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



TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/28/78 0900 TO 03/29/78 0900

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
A. AESTIVALIS	1	15.00	15.0	15.0	67.5	127.5
F. MAJALIS	3	64.60	10.9	39.5	82.5	152.5
A. ROSTRATA	1	68.80	68.8	68.8	382.5	382.5
P. FLAVESCENS	2	32.90	8.7	24.2	127.5	127.5
M. AMERICANA	9	37.70	3.4	6.4	62.5	82.5
-----						
TOTAL	16	219.00				
-----						

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 03/29/78 C900 TO 03/30/78 0900

NUMBER OF PUMPS 3 - 3

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
P. ANNULARIS	1	32.30	32.3	32.3	132.5	132.5
M. AMERICANA	11	72.00	3.1	11.4	62.5	92.5
P. FLAVESCENS	1	5.20	5.2	5.2	77.5	92.5
F. HETEROCALITUS	3	15.70	3.1	6.0	62.5	82.5
F. MAJALIS	3	45.00	8.2	26.4	87.5	127.5
A. ROSTRATA	2	2.20	1.8	1.8	117.5	117.5
A. PSEUDOHARENGUS	1	24.20	24.2	24.2	137.5	137.5
A. AESTIVALIS	27	110.00	2.4	8.5	62.5	92.5
<hr/>						
TOTAL	49	306.60				

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

ABRKPT PRINTS