

IMPINGEMENT MONITORING PROGRAM

REPORT NO. 8 - NOVEMBER 1977

SALEM NUCLEAR GENERATING STATION
UNIT NO. 1

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

Bucket # 50-272
Control # 12-26-77
Date _____ of Document
REGULATORY DOCKET FILE

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
NEWARK, NEW JERSEY
DECEMBER 20, 1977

SUMMARY

This is the eighth 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 consists 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 are 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.

SNGS initiated a planned eight week outage on September 17, 1977. The station initiated startup procedures on November 18, 1977. SWS samples were collected during the outage and after startup as required by the ETS. CWS samples were only collected if the intake was in service during regularly scheduled sampling periods.

MDL:aec

TABLE 1. - START TIME AND DURATION OF IMPINGEMENT SAMPLES AT THE CIRCULATING WATER INTAKE, S.N.C.S. UNIT 1
1 NOVEMBER THROUGH 1 DECEMBER 1977. 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)
11/01/77	1200	3	1	1	C	800	13.5
11/01/77	1800	3	1	1	C	1,200	13.0
11/02/77	0000	3	1	1	C	424	13.0
11/02/77	0600	3	1	1	C	282	13.0
11/02/77	1200	3	1	1	C	900	14.0
11/02/77	1800	3	1	1	C	660	14.0
11/03/77	0000	3	1	1	C	1	13.0
11/03/77	0600	3	1	1	C	818	14.0
11/03/77	1200	3	1	1	C	1,500	14.0
11/03/77	1800	3	1	1	C	1,600	14.0
11/04/77	0000	3	1	1	C	275	15.0
11/04/77	0600	3	1	1	C	912	14.0
11/08/77	1200	3	1	1	C	2,000	14.5
11/08/77	1500	3	1	1	C	630	14.5
11/08/77	1800	3	1	1	C	130	15.0
11/09/77	1800	3	1	1	C	1,600	15.0
11/09/77	2100	3	1	1	C	300	15.0
11/10/77	0000	3	1	1	C	200	15.0
11/10/77	0300	3	1	1	C	1,500	14.5
11/10/77	1202	3	1	1	C	4,300	14.5
11/10/77	1800	3	1	1	C	4,000	14.5
11/11/77	0000	3	1	1	C	100	14.5
11/11/77	0600	3	1	1	C	0	13.0
11/15/77	1200	3	1	1	C	3,700	9.5
11/15/77	1800	3	1	1	C	2,100	10.5
11/16/77	0000	3	1	1	C	650	9.5
11/16/77	0600	3	1	1	C	1,300	9.5
11/16/77	1200	3	1	1	C	1,600	10.0
11/16/77	1800	3	1	1	C	660	10.0
11/17/77	0000	3	1	1	C	1,300	10.0
11/17/77	0600	3	1	1	C	1,300	10.0
11/17/77	1200	3	1	1	C	500	11.0
11/17/77	1800	3	1	1	C	910	10.5
11/18/77	0000	3	1	1	C	290	9.0
11/18/77	0600	3	1	1	C	1,200	9.0
11/21/77	1200	3	2	2	C	4,500	9.0
11/21/77	1800	3	1	2	C	2,700	9.0
11/22/77	0000	3	2	2	C	2,200	10.0
11/22/77	0600	3	2	2	C	1,700	9.5
11/22/77	1200	3	2	2	C	5,200	11.0
11/22/77	1800	3	2	3	C	3,600	10.5
11/23/77	0000	3	3	3	C	1,700	10.0
11/23/77	0600	3	3	3	C	3,800	10.0
11/23/77	1200	3	3	3	C	5,600	10.5
11/23/77	1800	3	3	3	C	5,000	10.5
11/24/77	0000	3	5	3	C	5,400	
11/24/77	0600	3	5	3	C	6,200	
11/28/77	1200	3	5	5	C	900	8.0
11/28/77	1800	3	5	5	C	25,000	8.0
11/29/77	0000	3	5	5	C	1,000	8.5
11/29/77	0603	3	5	5	C	35	7.5
11/30/77	1200	3	3	5	C	1,500	8.0
11/30/77	1800	3	2	5	C	5,700	8.5
12/01/77	0001	3	2	5	C	2,300	8.0
12/01/77	0600	3	2	5	C	8,400	8.0

TABLE 2. - IMPINGEMENT - S.N.G.S. CIRCULATING WATER SYSTEM INTAKE, 1 NOVEMBER TO 1 DECEMBER 1977.

SAMPLING PERIOD - 11/01/77 1200 THROUGH 11/02/77 0600

SPECIES	N	CF	% 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	DA						MIN.	MAX.	MIN.	MAX.
A. AESTIVALIS	4	1	100	0	0	1	120	240.0	.32	.6	2.7	2.7	67.5	67.5
A. MITCHILLI	4	3	90	10	0	20	2,400	4166.1	2.26	3.7	.6	1.8	37.5	57.5
T. MACULATUS	4	2	100	0	0	2	240	277.1	.33	.3	1.1	1.7	37.5	42.5
E. SAPIDUS	4	3	100	0	0	3	360	240.0	.50	.4	.7	2.2	27.5	32.5
D. CEPEDIANUM	4	1	0	0	100	1	120	240.0	1.54	3.0	12.9	12.9	102.5	102.5
M. AMERICANA	4	1	0	100	0	1	120	240.0	.42	.8				
TOTAL						28	3,360		5.37					

N = NUMBER OF 3-MINUTE SAMPLES.

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

% SURVIVAL: L = LIVE; D = DEAD; DA = 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 - 11/02/77 1200 THROUGH 11/03/77 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.
T. MACULATUS	4	3	100	0	0	4	480	391.9	.68	.6	.8	1.7	37.5	47.5
L. XANTHURUS	4	3	25	0	75	4	480	391.9	4.05	3.6	6.6	11.9	77.5	92.5
M. SAXATILIS	4	1	100	0	0	1	120	240.0	.63	1.2	5.3	5.3	72.5	72.5
A. MITCHELLI	4	2	100	0	0	3	360	459.5	.32	.4	.7	1.3	42.5	52.5
A. ROSTRATA	4	1	0	0	100	1	120	240.0	2.05	4.1	17.1	17.1	227.5	227.5
D. CEPEDIANUM	4	1	100	0	0	1	120	240.0	.80	1.6	6.7	6.7	87.5	87.5
D. TYRANNUS	4	1	0	0	100	1	120	240.0	1.89	3.7	15.8	15.8	92.5	92.5
C. SAPIDUS	4	1	100	0	0	3	360	720.0	1.87	3.7	.6	12.6	22.5	57.5

TOTAL	18	2,160	12.29
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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 - 11/03/77 1200 THROUGH 11/04/77 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. MENIDIA	4	1	0	100	0	1	120	240.0	.01		.1	.1	37.5	37.5
M. AMERICANA	4	4	60	0	40	5	600	240.0	4.31	1.7	5.8	8.8	72.5	87.5
T. MACULATUS	4	3	92	0	7	13	1,560	1064.3	2.36	1.6	.6	2.2	32.5	47.5
L. XANTHURUS	4	3	0	0	100	4	480	391.9	4.67	3.8	5.8	17.4	72.5	107.5
A. MITCHILLI	4	2	60	20	20	5	600	908.6	1.36	2.3	.6	3.5	52.5	72.5
M. UNDULATUS	4	1	100	0	0	1	120	240.0	.04		.4	.4	37.5	37.5
C. SAPIDUS	4	2	100	0	0	5	600	720.0	2.78	3.2	.8	9.6	22.5	52.5
TOTAL						34	4,080		15.53					

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 - 11/08/77 1200 THROUGH 11/08/77 1800

SPECIES	N	CF	Z 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.
U. CHUSS	3	2	33	33	33	3	480	480.0	.94	1.1	1.2	3.2	57.5	77.5
M. MENIDIA	3	1	33	66	0	3	480	831.3	.62	1.0	1.1	1.6	57.5	67.5
T. MACULATUS	3	1	100	0	0	3	480	831.3	.46	.8	.6	1.3	32.5	42.5
C. SAPIDUS	3	2	80	20	0	5	800	999.1	.35	.5	.2	.8	12.5	27.5
U. REGIUS	3	1	100	0	0	1	160	277.1	.36	.6	2.3	2.3	72.5	72.5
L. XANTHURUS	3	1	0	100	0	1	160	277.1	2.49	4.3	15.6	15.6	97.5	97.5
TOTAL						16	2,560		5.22					

N = NUMBER OF 3-MINUTE SAMPLES.

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

Z 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.

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

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 11/10/77 1202 THROUGH 11/11/77 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.
T. MACULATUS	4	2	91	8	0	24	2,880	3325.5	6.26	7.4	.5	3.2	32.5	52.5
C. SAPIDUS	4	2	83	16	0	6	720	831.3	1.03	1.4	.5	4.2	22.5	27.5
P. SALTATRIX	4	1	0	0	100	1	120	240.0	15.96	31.9	133.0	133.0	212.5	212.5
B. TYRANNUS	4	1	100	0	0	1	120	240.0	.81	1.6	6.8	6.8	77.5	77.5
L. XANTHURUS	4	1	100	0	0	1	120	240.0	1.80	3.6	15.0	15.0	112.5	112.5
M. UNDULATUS	4	1	100	0	0	2	240	480.0	1.54	3.0	3.8	9.1	62.5	87.5
A. MITCHELLI	4	1	0	100	0	1	120	240.0	.10	.2	.9	.9	42.5	42.5

TOTAL						36	4,320		27.50					
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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 - 11/09/77 1800 THROUGH 11/10/77 0300

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.
L. MACROCHIRUS	4	1	100	0	0	1	120	240.0	1.35	2.7	11.3	11.3	82.5	82.5
F. METEROCLITUS	4	1	100	0	0	1	120	240.0	.39	.7	3.3	3.3	62.5	62.5
T. MACULATUS	4	3	100	0	0	11	1,320	1262.3	3.75	4.0	.8	14.8	32.5	87.5
S. FUSCUS	4	1	100	0	0	1	120	240.0	.10	.2	.9	.9	132.5	132.5
L. XANTHURUS	4	1	50	0	50	2	240	480.0	2.61	5.2	10.6	11.2	92.5	92.5
C. SAPIDUS	4	3	100	0	0	3	360	240.0	.85	.9	.3	4.0	17.5	37.5
A. ROSTRATA	4	1	100	0	0	1	120	240.0	4.53	9.0	37.8	37.8	227.5	227.5
TOTAL						20	2,400		13.58					

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 - 11/15/77 1200 THROUGH 11/16/77 0600

SPECIES	N	CF	% 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.
L. NANTHURUS	4	4	71	19	9	21	2,520	1585.9	21.44	15.4	.5	9.5	77.5	107.5
M. UNDULATUS	4	2	100	0	0	2	240	277.1	.08		.2	.5	37.5	47.5
T. MACULATUS	4	4	97	2	0	45	5,400	2610.7	6.46	1.8	.1	1.1	27.5	67.5
M. AMERICANA	4	1	0	0	100	1	120	240.0	.79	1.5	6.6	6.6	77.5	77.5
A. MITCHILLI	4	1	0	100	0	3	360	720.0	.28	.5	.4	1.8	42.5	72.5
C. SAPIDUS	4	1	100	0	0	3	360	720.0	1.44	2.8			27.5	47.5

TOTAL						75	9,000		30.49					
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N = NUMBER OF 3-MINUTE SAMPLES.

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

% 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 - 11/16/77 1200 THROUGH 11/17/77 0600

SPECIES	N	CF	Z 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.
L. NANTHURUS	4	3	100	0	0	4	480	391.9	4.12	3.0	5.0	11.0	77.5	92.5
T. MACULATUS	4	3	100	0	0	12	1,440	1413.0	1.66	1.8	.5	2.1	32.5	52.5
M. MENIDIA	4	1	100	0	0	1	120	240.0	.26	.5	2.2	2.2	72.5	72.5
A. MITCHILLI	4	1	0	100	0	1	120	240.0	.01					
C. SAPIDUS	4	1	100	0	0	1	120	240.0	1.35	2.7	11.3	11.3	57.5	57.5
D. CEPEDIANUM	4	1	0	100	0	1	120	240.0	1.44	2.8	12.0	12.0	97.5	97.5
A. ROSTRATA	4	1	100	0	0	1	120	240.0	14.28	28.5	119.0	119.0	467.5	467.5
M. AMERICANA	4	1	0	100	0	1	120	240.0	.72	1.4	6.0	6.0	67.5	67.5
TOTAL						22	2,640		23.84					

N = NUMBER OF 3-MINUTE SAMPLES.

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

Z 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 - 11/17/77 1200 THROUGH 11/18/77 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.
T. MACULATUS	4	4	92	7	0	13	1,560	989.5	2.07	1.3	.8	2.0	32.5	252.5
A. AESTIVALIS	4	1	0	100	0	1	120	240.0	.40	.8	3.4	3.4	72.5	72.5
C. SAPIDUS	4	1	100	0	0	2	240	480.0	1.50	3.0	4.0	8.5	42.5	52.5
L. XANTHURUS	4	2	100	0	0	2	240	277.1	2.76	3.3	9.0	14.0	102.5	102.5
M. AMERICANA	4	2	66	33	0	3	360	459.5	2.16	2.6	5.5	7.0	72.5	82.5
A. ROSTRATA	4	1	100	0	0	2	240	480.0	10.68	21.3	44.0	45.0	302.5	307.5
TOTAL						23	2,760		19.57					

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 - 11/21/77 1200 THROUGH 11/22/77 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.
L. XANTHURUS	4	3	80	13	6	30	3,600	3147.5	26.19	18.0	4.9	18.2	72.5	112.5
M. AMERICANA	4	4	91	0	8	35	4,200	2229.9	27.33	10.3	2.5	15.6	57.5	97.5
D. CEPEDIANUM	4	1	33	33	33	3	360	720.0	3.55	7.1	5.9	12.0	72.5	102.5
A. MITCHILLI	4	1	0	100	0	1	120	240.0	.33	.6	2.8	2.8	42.5	42.5
T. MACULATUS	4	4	96	3	0	27	3,240	2836.3	4.42	4.0	.8	9.0	32.5	47.5
C. SAPIDUS	4	2	100	0	0	3	360	459.5	3.85	4.4	2.9	15.0	32.5	67.5
A. AESTIVALIS	4	2	66	0	33	3	360	459.5	1.44	1.9	3.5	4.5	72.5	92.5
TOTAL						102	12,240		67.11					

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 - 11/22/77 1200 THROUGH 11/23/77 0600

SPECIES	N	CF	% 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	79	12	8	24	2,880	1413.0	18.73	10.8	3.1	13.5	62.5	87.5
L. XANTHURUS	4	4	40	30	30	10	1,200	277.1	11.71	1.4	3.7	19.4	77.5	97.5
D. CEPEDIANUM	4	1	0	0	100	1	120	240.0	.78	1.5	6.5	6.5	77.5	87.5
T. MACULATUS	4	2	100	0	0	11	1,320	2331.0	1.74	2.8	.9	2.5	32.5	47.5
C. SAPIDUS	4	1	100	0	0	1	120	240.0	1.20	2.4	10.0	10.0	57.5	57.5
A. AESTIVALIS	4	2	20	80	0	5	600	908.6	2.14	3.0	4.0	4.7	72.5	82.5
M. UNDULATUS	4	1	0	100	0	1	120	240.0	.12	.2	1.0	1.0	37.5	37.5
TOTAL						53	6,360		36.42					

N = NUMBER OF 3-MINUTE SAMPLES.

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

% 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
PSEB, NEWARK, N.J.

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 11/23/77 1200 THROUGH 11/24/77 0600

SPECIES	N	CF	% 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	89	4	6	241	28,920	13006.5	176.70	74.3	3.6	10.6	47.5	92.5
L. XANTHURUS	4	4	80	1	17	51	6,120	1633.6	67.84	15.1	7.9	20.3	67.5	112.5
A. ROSTRATA	4	1	100	0	0	1	120	240.0	9.38	18.7	78.2	78.2	347.5	347.5
A. MITCHILLI	4	2	55	33	11	9	1,080	1585.9	2.75	4.8	.2	4.3	42.5	72.5
M. UNDULATUS	4	2	76	18	4	91	10,920	19663.8	8.60	16.0	.1	5.2	27.5	67.5
A. AESTIVALIS	4	4	62	13	24	45	5,400	2836.3	26.20	20.5	2.5	7.0	57.5	92.5
D. CEPEDIANUM	4	3	0	0	100	6	720	619.6	8.16	6.6	9.1	13.0	92.5	152.5
U. CHUSS	4	1	100	0	0	1	120	240.0	.43	.8	3.6	3.6	72.5	72.5
T. MACULATUS	4	2	95	5	0	60	7,200	9365.1	12.69	17.2	.7	4.3	27.5	57.5
C. SAPIDUS	4	1	100	0	0	2	240	480.0	1.00	2.0	3.9	4.5	32.5	37.5
M. SAXATILIS	4	1	100	0	0	1	120	240.0	.37	.7	3.1	3.1	67.5	67.5

TOTAL						508	60,960		314.12					
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N = NUMBER OF 3-MINUTE SAMPLES.

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

% 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.

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

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 11/28/77 1200 THROUGH 11/29/77 0603

SPECIES	N	CF	Z 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	59	16	23	136	16,320	9735.0	141.00	98.7	2.1	87.6	52.5	172.5
L. XANTHURUS	4	3	54	18	27	11	1,320	1433.3	15.96	17.9	6.5	20.8	82.5	112.5
D. CEPEDIANUM	4	4	26	30	42	123	14,760	15109.8	161.52	163.3	4.0	27.1	67.5	122.5
T. MACULATUS	4	4	98	0	1	53	6,360	6189.0	11.78	12.0	.6	9.5	32.5	77.5
A. AESTIVALIS	4	4	23	38	38	13	1,560	1536.7	5.58	5.9	2.8	4.8	57.5	77.5
M. UNDULATUS	4	1	0	100	0	3	360	720.0	.12	.2	.2	.5	27.5	37.5
P. FLAVESCENS	4	1	100	0	0	1	120	240.0	15.13	30.2	126.1	126.1	207.5	207.5
H. NUCHALIS	4	2	50	50	0	2	240	277.1	4.39	5.4	13.2	23.4	107.5	127.5
A. MITCHILLI	4	1	0	100	0	1	120	240.0	.10	.2	.9	.9	52.5	52.5
B. TYRANNUS	4	1	0	100	0	1	120	240.0	6.31	12.6	52.6	52.6	152.5	152.5
C. SAPIDUS	4	1	100	0	0	1	120	240.0	.55	1.1	4.6	4.6	42.5	42.5
TOTAL						345	41,400		362.44					

N = NUMBER OF 3-MINUTE SAMPLES.

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

Z 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
 PSE66, NEWARK, N.J.

TABLE 3. - IMPINGEMENT - S.N.G.S. SERVICE WATER SYSTEM INTAKE, 1 NOVEMBER TO 1 DECEMBER 1977.

SAMPLING PERIOD - 11/01/77 0900 TO 11/02/77 0900

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
A. MITCHILLI	3	5.30	.8	3.4	42.5	72.5
A. PSEUDOHARENGUS	1	4.10	4.1	4.1	182.5	182.5
D. CEPEDIANUM	1	9.90	9.9	9.9	97.5	97.5
L. XANTHURUS	13	153.20	3.4	21.3	67.5	112.5
T. MACULATUS	4	5.20	1.1	1.7	42.5	47.5
A. ROSTRATA	2	109.70	48.2	61.5	302.5	327.5
C. SAPIDUS	5	15.00	.2	4.7	17.5	42.5
B. TYRANNUS	1	10.40	10.4	10.4	92.5	92.5

TOTAL 30 312.80

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

TABLE 2. - (CONTINUED).

SAMPLING PERIOD - 11/30/77 1200 THROUGH 12/01/77 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 (GM)		LENGTH (MM)	
			L	D	D*						MIN.	MAX.	MIN.	MAX.
M. AMERICANA	4	4	72	17	10	40	4,800	2906.5	29.68	20.2	2.4	14.5	57.5	102.5
L. XANTHURUS	4	4	66	11	22	36	4,320	2569.9	38.57	19.2	3.1	20.4	67.5	117.5
M. UNDULATUS	4	4	57	26	15	19	2,280	2994.3	.89	1.4	.1	.8	27.5	47.5
T. MACULATUS	4	3	95	4	0	22	2,640	1859.0	3.06	2.2	.2	3.1	27.5	57.5
D. CEPEDIANUM	4	1	0	100	0	1	120	240.0	1.53	3.0	12.8	12.8	97.5	97.5
M. MENIDIA	4	2	66	33	0	3	360	459.5	1.05	1.4	2.2	3.8	77.5	87.5
A. AESTIVALIS	4	2	50	0	50	2	240	277.1	.65	.8	1.7	3.8	67.5	77.5
U. CHUSS	4	1	0	100	0	1	120	240.0	.30	.6	2.5	2.5	82.5	82.5
A. ROSTRATA	4	1	100	0	0	1	120	240.0	1.95	3.9	16.3	16.3	207.5	207.5
M. BILINEARIS	4	1	100	0	0	1	120	240.0	1.09	2.1	9.1	9.1	112.5	112.5
C. SAPIDUS	4	1	100	0	0	1	120	240.0	2.30	4.6	19.2	19.2	62.5	62.5
TOTAL						127	15,240		81.07					

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
PSE86, NEWARK, N.J.

FINISH

WORKPT PRINTS

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/02/77 0900 TO 11/03/77 0900

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	1	6.60	6.6	6.6	82.5	82.5
A. MITCHILLI	2	4.10	1.7	2.4	62.5	62.5
T. MACULATUS	2	3.00	1.2	1.8	37.5	42.5
L. XANTHURUS	3	33.10	7.0	13.9	82.5	97.5
C. SAPIDUS	2	9.80	1.7	8.1	27.5	52.5

TOTAL	10	56.60				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/03/77 0900 TO 11/04/77 0900

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
A. MITCHILLI	5	17.10	2.5	4.4	67.5	77.5
T. MACULATUS	4	10.10	1.4	4.2	42.5	62.5
L. XANTHURUS	4	63.00	11.7	17.4	97.5	112.5
C. SAPIDUS	7	11.00	.2	5.4	12.5	42.5
B. TYRANNUS	1	9.10	9.1	9.1	92.5	92.5

TOTAL	21	110.30				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSESS, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/08/77 0830 TO 11/09/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
L. XANTHURUS	5	111.60	5.2	46.6	77.5	147.5
A. MITCHILLI	3	9.50	3.0	4.0	72.5	82.5
D. CEPEDIANUM	1	7.70	7.7	7.7	97.5	97.5
T. MACULATUS	1	1.60	1.6	1.6	52.5	52.5
U. CHUSS	1	2.20	2.2	2.2	72.5	72.5
M. AMERICANA	1	92.80	92.8	92.8	177.5	177.5
C. SAPIDUS	7	37.50	.2	31.4	17.5	87.5

TOTAL	19	262.90				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSEBG, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/09/77 0830 TO 11/10/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	1	88.20	88.2	88.2	177.5	177.5
L. XANTHURUS	5	72.20	9.9	17.3	87.5	107.5
A. MITCHILLI	7	26.40	2.3	5.0	67.5	77.5
T. MACULATUS	2	2.60	.8	1.8	32.5	42.5
C. SAPIDUS	10	48.80	.1	15.7	7.5	67.5
B. TYRANNUS	1	8.20	8.2	8.2	82.5	82.5
D. CEPEDIANUM	1	12.30	12.3	12.3	102.5	102.5

TOTAL	27	258.70				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/10/77 0830 TO 11/11/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
L. XANTHURUS	8	135.40	8.7	35.5	92.5	137.5
A. MITCHILLI	10	37.00	2.1	5.7	62.5	87.5
T. MACULATUS	9	16.80	1.4	4.8	37.5	62.5
A. ROSTRATA	1	48.60	48.6	48.6	312.5	312.5
M. AMERICANA	1	4.30	4.3	4.3	72.5	72.5
D. CEPEDIANUM	2	20.30	9.3	11.0	92.5	92.5
C. SAPIDUS	4	11.50	1.2	9.2	22.5	52.5
B. TYRANNUS	2	25.10	1.2	9.2		

TOTAL	37	299.00				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSEB, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/15/77 0830 TO 11/16/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
L. XANTHURUS	34	345.00	.7	9.2	57.5	117.5
T. MACULATUS	15	26.00	.1	9.2	27.5	72.5
A. AESTIVALIS	3	10.00	.3	9.2	67.5	82.5
TOTAL	52	381.00				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/16/77 0830 TO 11/17/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
L. XANTHURUS	79	636.80	2.5	18.9	57.5	112.5
M. AMERICANA	8	50.20	4.4	9.5	67.5	92.5
T. MACULATUS	8	9.70	.7	2.0	32.5	42.5
A. AESTIVALIS	7	31.60	2.6	6.0	67.5	87.5
L. MACROCHIRUS	1	4.00	4.0	4.0	57.5	57.5
A. SAPIDISSIMA	1	6.20	6.2	6.2	92.5	92.5
C. SAPIDUS	14	99.50	.7	14.8	22.5	62.5
B. TYRANNUS	2	14.00	6.0	8.0	82.5	97.5

TOTAL	120	852.00				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/17/77 0830 TO 11/18/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
A. ROSTRATA	1	650.00	650.0	650.0	667.5	667.5
L. XANTHURUS	64	497.20	5.6	21.0	57.5	117.5
M. AMERICANA	10	60.00	2.3	12.0	57.5	92.5
B. TYRANNUS	4	46.80	11.0	13.0	97.5	142.5
T. MACULATUS	16	27.80	1.0	3.0	37.5	67.5
C. SAPIDUS	6	61.50	2.1	18.7	32.5	72.5
D. CEPEDIANUM	1	14.00	14.0	14.0	112.5	112.5
TOTAL	102	1357.30				

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

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/21/77 0830 TO 11/22/77 0830

SPECIES	NUMBER	WT. (GN)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
L. XANTHURUS	31	339.70	8.0	15.5	72.5	107.5
M. AMERICANA	3	64.70	5.4	50.5	77.5	152.5
D. CEPEDIANUM	4	44.20	8.1	12.1	92.5	102.5
A. AESTIVALIS	2	10.60	3.5	7.1	72.5	87.5
A. ROSTRATA	1	82.00	82.0	82.0	287.5	287.5

TOTAL	41	541.20				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/22/77 0830 TO 11/23/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
L. XANTHURUS	82	836.70	4.8	28.3	72.5	122.5
M. AMERICANA	36	256.70	3.7	13.3	62.5	92.5
B. TYRANNUS	3	73.20	12.2	34.5	92.5	132.5
B. CEPEDIANUM	9	104.20	8.0	18.2	92.5	102.5
A. MITCHILLI	1	3.20	3.2	3.2	72.5	72.5
T. MACULATUS	3	3.00	.8	1.0	37.5	42.5
A. AESTIVALIS	4	15.00	3.8	5.7	67.5	77.5

TOTAL	138	1292.00				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/28/77 0900 TO 11/29/77 0900

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	161	1130.40	2.4	22.2	57.5	112.5
A. ROSTRATA	3	662.60	62.0	432.6	342.5	582.5
L. MACROCHIRUS	3	49.20	2.3	38.1	47.5	127.5
M. UNDULATUS	7	1.30	.1	.6	22.5	47.5
T. MACULATUS	6	39.10	.6	33.3	37.5	117.5
D. CEPEDIANUM	76	807.70	3.8	22.9	67.5	127.5
B. TYRANNUS	4	70.90	3.1	32.5	62.5	127.5
L. XANTHURUS	49	541.40	5.3	22.6	72.5	112.5
A. AESTIVALIS	19	72.00	1.7	5.1	62.5	82.5
A. MITCHILLI	3	8.10	.9	4.5	47.5	77.5
M. SAXATILIS	2	8.60	4.1	4.5	72.5	72.5

TOTAL	333	3391.30				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/23/77 0830 TO 11/24/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. AMERICANA	53	332.20	2.6	9.8	52.5	92.5
L. XANTHURUS	70	764.10	5.5	18.0	57.5	122.5
M. SAXATILIS	1	4.90	4.9	4.9		
D. CEPEDIANUM	5	60.10	8.6	23.0	102.5	127.5
A. AESTIVALIS	2	5.70	2.5	3.2	77.5	82.5
M. UNDULATUS	6	7.10	.9	1.5	37.5	42.5
L. MACROCHIRUS	1	10.90	10.9	10.9	82.5	82.5
T. MACULATUS	3	3.80	.9	2.0	32.5	42.5
C. SAPIDUS	2	16.40	2.9	8.1	37.5	47.5
P. FLAVESCENS	1	14.00	14.0	14.0	122.5	122.5

TOTAL	144	1219.20				
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE86, NEWARK, N.J.

TABLE 3. - (CONTINUED).

SAMPLING PERIOD - 11/30/77 0830 TO 12/01/77 0830

SPECIES	NUMBER	WT. (GM)	WEIGHT		LENGTH	
			MIN.	MAX.	MIN.	MAX.
M. MENIDIA	1	8.80	8.8	8.8	82.5	82.5
A. AESTIVALIS	6	18.80	2.4	5.3	67.5	82.5
M. NUHALIS	1	16.20	16.2	16.2	112.5	112.5
B. TYRANNUS	1	6.20	6.2	6.2	72.5	72.5
D. CEPEDIANUM	32	303.60	6.2	16.6	77.5	107.5
M. AMERICANA	43	258.80	2.6	27.3	57.5	117.5
L. XANTHURUS	43	431.60	5.4	23.3	72.5	117.5
M. UNDULATUS	4	1.90	.1	.9	22.5	42.5
U. CHUSS	4	7.80	.5	3.0	47.5	77.5
T. MACULATUS	10	15.90	.3	2.3	32.5	47.5

TOTAL	145	1069.60
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IMPINGEMENT MONITORING PROGRAM
SALEM NUCLEAR GENERATING STATION UNIT 1
PSE&G, NEWARK, N.J.

QASG,A 76031IMP.
FACILITY WARNING 10000000000

QASG,A 76031SP.
FACILITY WARNING 10000000000

QUSE SPECIES-FILE.,76031SP.
READY

QXQT IMPPRG.3A