



ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4000

July 26, 1979

1-079-11

Director of Nuclear Reactor Regulation
ATTN: Mr. R. W. Reid, Chief
Operating Reactor Branch #4
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Arkansas Nuclear One - Unit 1
Docket No. 50-313
License No. DPR-51
Intake Impingement Data
(File: 0520.2)

Gentlemen:

Enclosed are the results of impingement monitoring at the intake of Arkansas Nuclear One - Unit 1 during the month of June 1979. This is being submitted per Environmental Technical Specification 4.1.2.a(2).

Very truly yours,

David C. Trimble

David C. Trimble
Manager, Licensing

DCT:REI:dh

Enclosures: (3) Copies of report
(1) Set of computer cards

421 353

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SAMPLE TANK: 06-08-79

INLET WATER: 75 F
TEMPERATURE: 75 F

NUMBER OF CIRCULATING PUMPS IN OPERATION: 2

24 HOUR TOTAL
SAMPLE COUNT: 860

24 HOUR TOTAL
SAMPLE WEIGHT: 239.4 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	%	MODAL WEIGHT (MM)	%
WHITE CRAYFISH	29.05	464	200	150 TO 180	35	20 TO 25	18
WHITE CRAYFISH	10.08	295	200	90 TO 120	29	10 TO 15	17
WHITE CRAYFISH	3.89	24	182	150 TO 180	9	60 TO 65	4
WHITE CRAYFISH	0.18	3	110	90 TO 120	2	15 TO 20	1
WHITE CRAYFISH	0.28	6	153	120 TO 150	2	15 TO 20	2
WHITE CRAYFISH	1.99	6	316	120 TO 150	2	15 TO 20	1
WHITE CRAYFISH	7.95	42	532	90 TO 120	14	5 TO 10	12
WHITE CRAYFISH	0.40	3	256	60 TO 90	1	0 TO 5	1
WHITE CRAYFISH	0.08	11	83	60 TO 90	7	0 TO 5	7

24 HOUR TOTAL WEIGHT: 194.5 LBS OF DEBRIS ACCUMULATION.

SAMPLE TAKEN: 06-12-79

INLET WATERBOX TEMPERATURE: 76 F
INLET WATERBOX TEMPERATURE: 76 F
NUMBER OF SCREENS WASHED: 473
NUMBER OF CIRCULATING PUMPS IN OPERATION: 2
24 HOUR TOTAL SAMPLE WEIGHT: 18.9 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	%	MODAL WEIGHT (G)	%
WHITE SAND	12.13	315	147	150 TO 180	50%	15 TO 20	11 39%
POSSIBLE SILT	3.31	95	250	90 TO 120	17 65%	5 TO 10	13 50%
POSSIBLE SILT	0.20	5	116	90 TO 120	4 80%	15 TO 20	2 40%
WHITE GRAVEL	0.30	6	142	120 TO 150	4 67%	20 TO 25	4 67%
POSSIBLE SILT	0.02	1	80	60 TO 90	1 100%	5 TO 10	1 100%
POSSIBLE GRAVEL	2.44	46	232	120 TO 150	10 38%	10 TO 15	9 35%
POSSIBLE GRAVEL	0.09	1	185	160 TO 210	1 100%	35 TO 40	1 100%
POSSIBLE GRAVEL	0.05	1	142	120 TO 150	1 100%	20 TO 25	1 100%
WHITE MASS	0.11	3	190	180 TO 210	2 67%	30 TO 35	1 33%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

421 355

SAMPLE TAKEN: 05-15-79

INLET WATERWAY: 24 HOUR TOTAL: 470 24 HOUR TOTAL: 26.4 LBS
OF SAMPLE: 24 HRS. TEMPERATURE: 83 F. WASHED: 470 SAMPLE WEIGHT: 26.4 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT(LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH(MM)	MODAL LENGTH(MM)	#	%	MODAL WEIGHT(GB)	#	%
WATERBURY SNAKE	11.31	243	260	150 TO 180	19	68%	15 TO 20	10	36%
WATERBURY SNAKE	2.69	92	199	90 TO 120	13	50%	5 TO 10	10	38%
WATERBURY SNAKE	3.25	41	167	90 TO 120	12	46%	15 TO 20	6	23%
WATERBURY SNAKE	0.44	5	135	120 TO 150	3	60%	20 TO 25	1	20%
WATERBURY SNAKE	0.86	11	261	30 TO 60	4	36%	0 TO 5	4	46%
WATERBURY SNAKE	0.35	5	171	120 TO 150	3	60%	25 TO 30	3	60%
WATERBURY SNAKE	0.18	5	160	90 TO 120	1	33%	15 TO 20	1	33%
WATERBURY SNAKE	0.01	1	86	60 TO 90	1	100%	0 TO 5	1	100%
WATERBURY SNAKE	1.02	2	367	240 TO 270	1	50%	85 TO 90	1	50%
WATERBURY SNAKE	4.00	65	275	120 TO 150	10	38%	10 TO 15	8	31%
WATERBURY SNAKE	0.01	1	57	30 TO 60	1	100%	0 TO 5	1	100%
WATERBURY SNAKE	2.25	1	432	420 TO 450	1	100%	1020 TO 1025	1	100%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

SAMPLE TAKEN: 06-19-79

INCLUSIVE TIME INLET WATERBOX # SCREENS NUMBER OF CIRCULATING 24 HOUR TOTAL 24 HOUR TOTAL *
OF SAMPLE: 24 HRS TEMPERATURE: 81 F WASHED: PUMPS IN OPERATION: 2 SAMPLE COUNT: 552 SAMPLE WEIGHT: 240.0 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (GR)	#	%
Gizzard Shad	11.00	238.	210	150 TO 180	38	73%	15 TO 20	24	46%
FRESHWATER DRUM	4.30	189.	192	90 TO 120	41	79%	5 TO 10	30	58%
CHANNEL CATFISH	6.81	86.	345	120 TO 150	14	33%	5 TO 10	9	21%
BLUEGILL SUNFISH	1.19	13.	183	90 TO 120	3	36%	5 TO 10	1	13%
LONGEAR SUNFISH	0.33	5.	125	60 TO 90	1	33%	10 TO 15	1	33%
WHITE CRAPPIE	3.88	8.	340	90 TO 120	1	20%	10 TO 15	1	20%
WHITE BASS	0.09	8.	134	30 TO 60	4	80%	0 TO 5	4	80%
GOLDEN SHINER	0.01	2.	770	750 TO 780	1	100%	0 TO 5	1	100%
GREEN SUNFISH	0.11	2.	122	120 TO 150	1	100%	30 TO 35	1	100%
LARGEMOUTH BASS	0.11	2.	140	120 TO 150	1	100%	30 TO 35	1	100%

* TOTAL SAMPLE WT. INCLUDES 212.2 LBS OF DEBRIS ACCUMULATION.

SAMPLE TAKEN: 06-22-79
INLET WATERBOX
OF SAMPLE: 24 HRS TEMPERATURE: 40 F
SPECIES 24 HR TOTAL WEIGHT (LBS) 43.31
SPECIES 24 HR TOTAL COUNT 462
NUMBER OF CIRCULATING PUMPS IN OPERATION: 3
SAMPLE COUNT: 2039
24 HOUR TOTAL *
SAMPLE WEIGHT: 334.2 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (GR)	#	%
GIZZARD SHAD	43.31	462	146	150 TO 180	38	69%	15 TO 20	22	40%
FRESHWATER DRUM	24.37	773	282	90 TO 120	33	61%	5 TO 10	19	35%
CHANNEL CATFISH	16.15	187	460	90 TO 120	19	37%	5 TO 10	10	23%
BLUEGILL SUNFISH	3.37	45	157	90 TO 120	8	40%	15 TO 20	3	15%
LONGEAR SUNFISH	0.47	7	122	90 TO 120	2	67%	20 TO 25	1	33%
WHITE CRAPPIE	1.40	18	192	120 TO 150	3	38%	15 TO 20	2	25%
WHITE BASS	1.27	16	742	30 TO 60	2	29%	0 TO 5	4	57%
BLUE CATFISH	4.34	14	340	120 TO 150	2	25%	10 TO 15	1	13%
STRIPED BASS	0.34	7	145	120 TO 150	3	100%	15 TO 20	1	33%
EUROPEAN CARP	1.48	4	340	60 TO 90	1	50%	0 TO 5	1	50%
GOLDEN SHINER	0.01	2	58	60 TO 90	1	100%	0 TO 5	1	100%

* TOTAL SAMPLE WT. INCLUDES 237.7 LBS OF DEBRIS ACCUMULATION.

421
358

SAMPLE TAKEN: 04-28-79

INCLUSIVE TIME INLET WATERBOX # SCREENS
OF SAMPLE: 24 HRS TEMPERATURE: 82 F WASHED:

NUMBER OF CIRCULATING 24 HOUR TOTAL
PUMPS IN OPERATION: 4 SAMPLE COUNT:

24 HOUR TOTAL *
SAMPLE WEIGHT: 14.7 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (LBS)	#	%
GIZZARD SHAD	2.13	66.	170	150 TO 180	8	31%	10 TO 15	7	27%
FRESHWATER DRUM	5.94	145.	250	90 TO 120	14	52%	5 TO 10	8	30%
CHANNEL CATFISH	2.44	44.	242	120 TO 150	14	54%	10 TO 15	8	31%
BLUE CATFISH	0.50	7.	210	180 TO 210	3	43%	10 TO 15	2	29%
BLUEGILL SUNFISH	2.10	21.	185	90 TO 120	8	38%	20 TO 25	3	14%
WHITE BASS	0.37	14.	170	30 TO 50	5	36%	0 TO 5	10	71%
WHITE CRAPPIE	1.09	15.	200	120 TO 150	12	80%	25 TO 30	5	33%
STRIPED BASS	0.11	1.	163	150 TO 180	1	100%	45 TO 50	1	100%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

421 359

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 07/24/79

SAMPLE TAKEN: 06-29-79

INCLUSIVE TIME

OF SAMPLE: 24 HRS

INLET WATERBOX

TEMPERATURE: 61 F

SCREENS

WASHED:

NUMBER OF CIRCULATING

PULPS IN OPERATION: 4

24 HOUR TOTAL *

SAMPLE WEIGHT: 798

30.9 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (GR)	#	%
GIZZARD SHAD	6.00	180.	370	150 TO 180	14	52%	0 TO 5	6	22%
FRESHWATER DRUM	11.00	435.	270	90 TO 120	19	63%	5 TO 10	14	47%
CHANNEL CATFISH	4.31	89.	480	120 TO 150	6	31%	5 TO 10	6	23%
BLUE CATFISH	3.13	16.	346	180 TO 210	5	31%	50 TO 55	3	19%
BLUEGILL SUNFISH	2.06	26.	175	90 TO 120	13	50%	15 TO 20	5	19%
LONGEAR SUNFISH	0.24	4.	126	90 TO 120	3	75%	20 TO 25	3	75%
WHITE CRAPPIE	3.69	22.	342	120 TO 150	13	59%	25 TO 30	5	23%
WHITE BASS	0.27	23.	155	60 TO 90	15	65%	0 TO 5	20	87%
STRIPED BASS	0.17	2.	167	120 TO 150	1	5	35 TO 40	1	50%
MISSISSIPPI SILVERSIDE	0.02	1.	118	90 TO 120	1	100%	5 TO 10	1	100%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

421 360