

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

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Enviro

TO:

N. R. C.

FROM:
Indiana & Michigan Power Company
Bridgman, Michigan
D. V. Shaller

DATE OF DOCUMENT
8/17/77

DATE RECEIVED
8/22/77

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DESCRIPTION

(1-P)

PLANT NAME: Cook Unit No. 1
RJL 8/23/77

ENCLOSURE

Monthly Report on Impingement of Fish for the Month of April, 1977.....

(6-P)

ACKNOWLEDGED
DO NOT REMOVE

1 CY ENCL Rec'd

SAFETY	FOR ACTION/INFORMATION	ENVIRONMENTAL
ASSIGNED AD:		V. MOORE (LTR)
<input checked="" type="checkbox"/> BRANCH CHIEF: (7) DAVIS	<input checked="" type="checkbox"/>	Knighton
PROJECT MANAGER:	<input checked="" type="checkbox"/>	Cota
LICENSING ASSISTANT:	<input checked="" type="checkbox"/>	SLATER
		B. HARLESS

INTERNAL DISTRIBUTION			
<input checked="" type="checkbox"/> REG FILES	SYSTEMS SAFETY	PLANT SYSTEMS	SITE SAFETY & ENVIRON ANALYSIS
<input checked="" type="checkbox"/> NRG PDR	HEINEMAN	TEDESCO	DENTON & MULLER
<input checked="" type="checkbox"/> I & E (2)	SCHROEDER	BENAROYA	CRITCHFIELD
<input checked="" type="checkbox"/> OELD		LAINAS	
GOSSICK & STAFF	ENGINEERING	IPPOLITO	
<input checked="" type="checkbox"/> HANAHER	KNIGHT	F. ROSA	ENVIRO TECH, ERNST
<input checked="" type="checkbox"/> MTEC	BOSNAK		BALLARD
CASE	SIHWELL	OPERATING REACTORS	YOUNGBLOOD
BOYD	PAWLICKI	STELLO	
		EISENHUT	
PROJECT MANAGEMENT	REACTOR SAFETY	SHAO	SITE TECH.
SKOVHOLT	ROSS	BAER	
P. COLLINS	NOVAK	BUTLER	GAMMILL (2)
HOUSTON	ROSZTOCZY	<input checked="" type="checkbox"/> GRIMES	
MELTZ	CHECK		SITE ANALYSIS
HEITEMES			VOLLMER
SK	AT&I		BUNCH
	SALTZMAN		<input checked="" type="checkbox"/> J. COLLINS
	RUTBERG		KREGER

EXTERNAL DISTRIBUTION	CONTROL NUMBER
<input checked="" type="checkbox"/> LPDR: St. Joseph, Mich.	Enviro 772350023 GD
<input checked="" type="checkbox"/> TIC <input checked="" type="checkbox"/> NSIC	
<input checked="" type="checkbox"/> NAT LAB ANL	
REG IV (J. HANCHETT)	
<input checked="" type="checkbox"/> CY5 ACRS SENT CATEGORY B	

1952
1953
1954



INDIANA & MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106

August 17, 1977



Directorate of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20545

Docket No. 50-315
50-316

REGULATORY DOCKET FILE COPY

Gentlemen:

Pursuant to the requirements of Section 4.1.2.1.2 of the Appendix B Environmental Technical Specifications for the Donald C. Cook Nuclear Plant, the attached monthly report on impingement of fish is submitted.

This report covers the month of April, 1977.

Sincerely,

D. V. Shaller
Plant Manager

DVS/mj

- cc: R. W. Jurgensen
J. E. Dolan
G. E. Lien
R. J. Vollen
K. R. Baker RO: III
R. C. Callen MPSC
Richard Walsh, Esq.
Peter Stekete, Esq.
NRC RO: III
PNSRC File

772350023

BY DOCKET EN

ABBREVIATIONS AND STATION IDENTIFICATIONS FOR MONTHLY FIELD DATA REPORTS

Stations:

A - north of plant 0-2 m
B - south of plant 0-2 m
C - south of plant 6.1 m
D - south of plant 9.1 m
E - off Cook Plant 21.3 m
F - Warren Dunes 0-2 m
G - Warren Dunes 6.1 m
H - Warren Dunes 9.1 m
Q - north of plant 9.1 m
R - north of plant 6.1 m
W - Warren Dunes 21.3 m

Time:

D = day
N = night

Numbers in catch:

F - few (1-9 fish)
M - many (10-50 fish)
A - abundant (50 fish)
When numbers are given it
is the exact number of fish.

Species:

Alewife-----AL	Goldfish-----GF	River redhorse-----RR
Atlantic salmon-----AS	Grass pickeral-----GP	Rock bass-----RB
Bigmouth shiner-----BS	Green sunfish-----GN	Round whitefish-----RW
Black bullhead-----BB	Johnny darter-----JD	Sand shiner-----SH
Black crappie-----BC	Lake chub-----LC	Sauger-----SA
Bloater-----BL	Lake Herring-----LH	Sea lamprey-----SL
Bluegill-----BG	Lake sturgeon-----LG	Shorthead redhorse-----SR
Bluntnose minnow-----BM	Lake trout-----LT	Shortnose gar-----SG
Bowfin-----BF	Lake whitefish-----LW	Silver chub-----SC
Brook trout-----TB	Largemouth bass-----LB	Slimy sculpin-----SS
Brown trout-----BT	Log perch-----LP	Smallmouth bass-----SB
Burbot-----BR	Longnose dace-----LD	Splake-----SX
Carp-----CP	Longnose gar-----LR	Spoonhead sculpin-----PN
Channel catfish-----CC	Longnose sucker-----LS	Spotfin shiner-----SF
Chestnut lamprey-----CL	Mimic shiner-----MC	Spottail shiner-----SP
Chinook salmon-----CH	Mottled sculpin-----MS	Steelhead-----ST
Common shiner-----CS	Mudminnow-----MM	Tiger muskey-----TM
Creek chub-----CR	Ninespine stickleback-----NS	Trout-perch-----TP
Emerald shiner-----ES	Northern pike-----NP	Unidentified coregonid-----XC
Fathead minnow-----PP	Pirate perch-----PR	Unidentified pisces-----XX
Fourhorned sculpin-----FS	Pink salmon-----PK	Walleye-----WL
Freshwater drum-----FD	Pumpkinseed-----PS	White crappie-----WC
Gizzard shad-----GS	Quillback-----QL	White sucker-----WS
Golden redhorse-----GR	Rainbow smelt-----SM	Yellow bullhead-----YB
Golden shiner-----GL	Rainbow trout-----RT	Yellow perch-----YP
		Zero fish caught-----ZZ

MONTH: APRIL, 1977

WEIGHT IN KILOGRAMS
 TEMPERATURE IN DEGREES CENTIGRADE
 PERCENTAGES ARE OF TOTAL SAMPLED THIS MONTH

	1		2		3		4		5		6		7		8	
	6.7		NO SAMPLING		NO SAMPLING		NO SAMPLING		8.3		NO SAMPLING		NO SAMPLING		8.4	
TEMP C	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT	NUMBER	WEIGHT
SPECIES																
SP	21	0.38	0	0.0	0	0.0	0	0.0	20	0.31	0	0.0	0	0.0	123	1.53
AL	4	0.17	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	84	3.59
SM	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9	0.10
YP	5	0.35	0	0.0	0	0.0	0	0.0	3	0.10	0	0.0	0	0.0	34	1.38
TP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	12	0.12
JD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
LT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	2.55
CM	1	0.45	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
BT	1	0.02	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.01
SS	4	0.05	0	0.0	0	0.0	0	0.0	24	0.18	0	0.0	0	0.0	111	0.81
TOTALS	36	1.41	0	0.0	0	0.0	0	0.0	47	0.59	0	0.0	0	0.0	376	10.08
PERCENT	2.71	3.57	0.0	0.0	0.0	0.0	0.0	0.0	3.54	1.49	0.0	0.0	0.0	0.0	28.29	25.51

MONTH: APRIL, 1977

WEIGHT IN KILOGRAMS
 TEMPERATURE IN DEGREES CENTIGRADE
 PERCENTAGES ARE OF TOTAL SAMPLED THIS MONTH

	17		18		19		20		21		22		23		24	
	NO SAMPLING NUMBER	WEIGHT	9.5 NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	10.6 NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT
TEMP C																
SPECIES																
SP	0	0.0	3	0.04	0	0.0	0	0.0	0	0.0	2	0.04	0	0.0	0	0.0
AL	0	0.0	1	0.03	0	0.0	0	0.0	0	0.0	1	0.04	0	0.0	0	0.0
SH	0	0.0	3	0.11	0	0.0	0	0.0	0	0.0	1	0.04	0	0.0	0	0.0
YP	0	0.0	1	0.09	0	0.0	0	0.0	0	0.0	1	0.02	0	0.0	0	0.0
TP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
JD	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
LT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
CH	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
BT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SS	0	0.0	5	0.05	0	0.0	0	0.0	0	0.0	1	0.00	0	0.0	0	0.0
TOTALS	0	0.0	13	0.32	0	0.0	0	0.0	0	0.0	6	0.14	0	0.0	0	0.0
PERCENT	0.0	0.0	0.98	0.81	0.0	0.0	0.0	0.0	0.0	0.0	0.45	0.35	0.0	0.0	0.0	0.0

MONTH: APRIL, 1977

WEIGHT IN KILOGRAMS
 TEMPERATURE IN DEGREES CENTIGRADE
 PERCENTAGES ARE OF TOTAL SAMPLED THIS MONTH

TEMP C	25		26		27		28		29		30		31		TOT. NO.	TOT. WT.
	9.4 NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	10.5 NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT		
SPECIES																
SP	84	1.00	0	0.0	0	0.0	0	0.0	34	0.45	0	0.0	0	0.0	311	4.04
AL	65	2.43	0	0.0	0	0.0	0	0.0	351	12.50	0	0.0	0	0.0	516	19.21
SM	22	0.16	0	0.0	0	0.0	0	0.0	23	0.21	0	0.0	0	0.0	60	0.65
YP	67	4.53	0	0.0	0	0.0	0	0.0	3	0.32	0	0.0	0	0.0	126	7.40
TP	12	0.12	0	0.0	0	0.0	0	0.0	4	0.04	0	0.0	0	0.0	29	0.28
JD	3	0.01	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
LT	0	0.0	0	0.0	0	0.0	0	0.0	1	3.10	0	0.0	0	0.0	2	5.65
CN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.45
BT	0	0.0	0	0.0	0	0.0	0	0.0	1	0.01	0	0.0	0	0.0	2	0.03
NS	3	0.01	0	0.0	0	0.0	0	0.0	1	0.00	0	0.0	0	0.0	8	0.02
SS	79	0.38	0	0.0	0	0.0	0	0.0	25	0.14	0	0.0	0	0.0	271	1.76
TOTALS	335	8.65	0	0.0	0	0.0	0	0.0	443	16.78	0	0.0	0	0.0	1329	39.52
PERCENT	25.21	21.89	0.0	0.0	0.0	0.0	0.0	0.0	33.33	42.46	0.0	0.0	0.0	0.0	100.00	100.00

MONTH: APRIL, 1977

WEIGHT IN KILOGRAMS
TEMPERATURE IN DEGREES CENTIGRADE
PERCENTAGES ARE OF TOTAL SAMPLED THIS MONTH

SPECIES	DAILY AVG	STD DEV	DAILY AVG	STD DEV	PERCENT	TOTAL	PERCENT	TOTAL	ESTIMATED TOTALS FOR MONTH	
	NUMBER	NUMBER	WEIGHT	WEIGHT	NUMBER	NUMBER	WEIGHT	WEIGHT	NUMBER	WEIGHT
SP	38.88	42.56	0.51	0.51	23.40	311	10.23	4.04	1166	15.15
AL	64.50	120.31	2.40	4.30	38.83	516	48.60	19.21	1935	72.02
SM	7.50	9.70	0.08	0.08	4.51	60	1.65	0.65	225	2.44
YP	15.75	23.45	0.93	1.52	9.48	126	18.74	7.40	472	27.77
TP	3.63	5.34	0.04	0.05	2.18	29	0.72	0.28	108	1.07
JD	0.38	1.06	0.00	0.00	0.23	3	0.03	0.01	11	0.05
LT	0.25	0.46	0.71	1.32	0.15	2	14.30	5.65	7	21.19
CM	0.13	0.35	0.06	0.16	0.08	1	1.14	0.45	3	1.69
BT	0.25	0.46	0.00	0.01	0.15	2	0.08	0.03	7	0.12
NS	1.00	1.20	0.00	0.00	0.60	8	0.05	0.02	30	0.08
SS	33.88	39.84	0.22	0.26	20.39	271	4.46	1.76	1016	6.62
TOTAL	166.13	184.43	4.94	6.18	100.00	1329	100.00	39.52	4983	148.19

THERE WERE 8 DAYS ON WHICH SAMPLES WERE TAKEN.
ESTIMATED TOTALS FOR THIS MONTH ARE BASED ON 30 DAYS OF IMPINGEMENT.

EXECUTION TERMINATED 11:13:31 T=.792 RC=0 \$.83

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1977 AUG 22 PM 12 32