

## NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

50-315/316  
ENVIRO

TO: NRC	FROM: Indiana & Michigan Power Co. Bridgman, Michigan 49106 D. V. Shaller	DATE OF DOCUMENT 10/18/77 DATE RECEIVED 10/25/77
<input checked="" type="checkbox"/> LETTER <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> COPY	<input type="checkbox"/> NOTORIZED <input checked="" type="checkbox"/> UNCLASSIFIED	PROP INPUT FORM
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## DESCRIPTION

## ENCLOSURE

Consists of monthly report covering the month of August, 1977 on impingment of fish...

1p

6p

PLANT NAME: DONALD C. COOK  
jcm 10/25/77

1 CY ENCL Rec'd \*

SAFETY	FOR ACTION/INFORMATION	ENVIRONMENTAL
ASSIGNED AD:		ASSIGNED AD: V. MOORE (LTR)
BRANCH CHIEF: (7) DAVIS		BRANCH CHIEF:
PROJECT MANAGER:		PROJECT MANAGER:
LICENSING ASSISTANT:		LICENSING ASSISTANT:
		B. HARLESS

INTERNAL DISTRIBUTION			
REG FILES (2)	SYSTEMS SAFETY	PLANT SYSTEMS	SITE SAFETY &
NRC_PDR	R. MATTSO	TEDESCO	ENVIRON ANALYSIS
F & E (2)	SCHROEDER	BENAROYA	DENTON & MULLER
QELD		LAINAS	CRUTCHFIELD
GOSSICK & STAFF	ENGINEERING	IPPOLITO	
HANAHER	KNIGHT	F. ROSA	ENVIRO TECH.
MTPC	BOSNAK		ERNST
CASE	SIHWELL	OPERATING REACTORS	BALLARD
BOYD	PAWLICKI	STELLO	YOUNGBLOOD
		EISENHUT	
PROJECT MANAGEMENT	REACTOR SAFETY	SHAO	SITE TECH.
SKOVHOLT	ROSS	BAER	
P. COLLINS	NOVAK	BUTLER	GAMMILL (2)
HOUSTON	ROSZTGCZY	GRIMES	
MELTZ	CHECK		SITE ANALYSIS
HELTEMES		X KNIEL	VOLLMER
SK	AT&I	X LEE	BUNCH
	SALTZMAN		X J. COLLINS
	RUTBERG		KREGER

EXTERNAL DISTRIBUTION	CONTROL NUMBER
X LPDR: ST. Joseph Mich.	
X TIC	
X NAT LAB	
X REG IV (J. HANCHETT)	
X CYS ACRS SENT CATEGORY B	
	772980160





**INDIANA & MICHIGAN POWER COMPANY**

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

**REGULATORY DOCKET FILE COPY**

October 18, 1977

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



Docket No. 50-315  
50-316

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 August, 1977.

Sincerely,

D. V. Shaller  
Plant Manager

DVS/mj

**Attachments**

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 Steketee, Esq.  
NRC RO: III  
PNSRC File

772980160

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED

## 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  
Atlantic salmon-----AS  
Bigmouth shiner-----BS  
Black bullhead-----BB  
Black crappie-----BC  
Bloater-----BL  
Bluegill-----BG  
Bluntnose minnow-----BM  
Bowfin-----BF  
Brook trout-----TB  
Brown trout-----BT  
Burbot-----BR  
Carp-----CP  
Channel catfish-----CC  
Chestnut lamprey-----CL  
Chinook salmon-----CH  
Common shiner-----CS  
Creek chub-----CR  
Emerald shiner-----ES  
Fathead minnow-----PP  
Fourhorned sculpin----FS  
Freshwater drum-----FD  
Gizzard shad-----GS  
Golden redhorse-----GR  
Golden shiner-----GL

Goldfish-----GF  
Grass pickerel-----GP  
Green sunfish-----GN  
Johnny darter-----JD  
Lake chub-----LC  
Lake Herring-----LH  
Lake sturgeon-----LG  
Lake trout-----LT  
Lake whitefish-----LW  
Largemouth bass-----LB  
Log perch-----LP  
Longnose dace-----LD  
Longnose gar-----LR  
Longnose sucker-----LS  
Mimic shiner-----MC  
Mottled sculpin-----MS  
Mudminnow-----MM  
Ninespine stickleback--NS  
Northern pike-----NP  
Pirate perch-----PR  
Pink salmon-----PK  
Pumpkinseed-----PS  
Quillback-----QL  
Rainbow smelt-----SM  
Rainbow trout-----RT

River redhorse-----RR  
Rock bass-----RB  
Round whitefish-----RW  
Sand shiner-----SH  
Sauger-----SA  
Sea lamprey-----SL  
Shorthead redhorse-----SR  
Shortnose gar-----SG  
Silver chub-----SC  
Slimy sculpin-----SS  
Smallmouth bass-----SB  
Splake-----SX  
Spoonhead sculpin-----PN  
Spotfin shiner-----SF  
Spottail shiner-----SP  
Steelhead-----ST  
Tiger muskey-----TM  
Trout-perch-----TP  
Unidentified coregonid--XC  
Unidentified pisces-----XX  
Walleye-----WL  
White crappie-----WC  
White sucker-----WS  
Yellow bullhead-----YB  
Yellow perch-----YP  
Zero fish caught-----ZZ



MONTH: AUGUST, 1977

WEIGHT IN KILOGRAMS

TEMPERATURE IN DEGREES CENTIGRADE

PERCENTAGES ARE OF TOTAL SAMPLED THIS MONTH

[illegible]

**MONTH: AUGUST, 1977**

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

[illegible]



MONTH: AUGUST, 1977

WEIGHT IN KILOGRAMS

TEMPERATURE IN DEGREES CENTIGRADE

TEMPERATURE IN DEGREES CENTIGRADE  
PERCENTAGES ARE OF TOTAL SAMPLED THIS MONTH

TEMP C	17		18		19		20		21		22		23		24	
	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	19.9 NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	18.5 NUMBER	WEIGHT
SPECIES																
SP	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.01
AL	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.17
SM	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
YP	0	0.0	0	0.0	0	0.0	2	0.13	0	0.0	0	0.0	0	0.0	2	0.11
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
SS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
BR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTALS	0	0.0	0	0.0	0	0.0	2	0.13	0	0.0	0	0.0	0	0.0	8	0.28
PERCENT	0.0	0.0	0.0	0.0	0.0	0.0	2.50	2.66	0.0	0.0	0.0	0.0	0.0	0.0	10.00	5.61

MONTH: AUGUST, 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.
	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	20.7 NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT	NO SAMPLING NUMBER	WEIGHT		
SPECIES																
SP	0	0.0	0	0.0	0	0.0	2	0.03	0	0.0	0	0.0	0	0.0	4	0.05
AL	0	0.0	0	0.0	0	0.0	9	0.24	0	0.0	0	0.0	0	0.0	24	0.70
SH	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.01
YP	0	0.0	0	0.0	0	0.0	9	0.76	0	0.0	0	0.0	0	0.0	36	3.97
TP	0	0.0	0	0.0	0	0.0	5	0.05	0	0.0	0	0.0	0	0.0	13	0.09
SS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.01
BR	0	0.0	0	0.0	0	0.0	1	0.24	0	0.0	0	0.0	0	0.0	1	0.24
TOTALS	0	0.0	0	0.0	0	0.0	26	1.32	0	0.0	0	0.0	0	0.0	80	5.07
PERCENT	0.0	0.0	0.0	0.0	0.0	0.0	32.50	26.01	0.0	0.0	0.0	0.0	0.0	0.0	100.00	100.00

MONTH: AUGUST, 1977

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

SPECIES	DAILY AVG NUMBER	STD DEV NUMBER	DAILY AVG WEIGHT	STD DEV WEIGHT	PERCENT NUMBER	TOTAL NUMBER	PERCENT WEIGHT	TOTAL WEIGHT	ESTIMATED TOTALS FOR MONTH	
									NUMBER	WEIGHT
SP	0.67	0.82	0.01	0.01	5.00	4	1.03	0.05	20	0.27
AL	4.00	3.35	0.12	0.09	30.00	24	13.75	0.70	124	3.60
SM	0.17	0.41	0.00	0.00	1.25	1	0.12	0.01	5	0.03
YP	6.00	5.76	0.66	0.90	45.00	36	78.32	3.97	186	20.53
TP	2.17	3.06	0.02	0.02	16.25	13	1.85	0.09	67	0.48
SS	0.17	0.41	0.00	0.00	1.25	1	0.18	0.01	5	0.05
BR	0.17	0.41	0.04	0.10	1.25	1	4.75	0.24	5	1.24
TOTAL	13.33	10.78	0.85	0.96	100.00	80	100.00	5.07	413	26.21

THERE WERE 6 DAYS ON WHICH SAMPLES WERE TAKEN.  
ESTIMATED TOTALS FOR THIS MONTH ARE BASED ON 31 DAYS OF IMPINGEMENT.

EXECUTION TERMINATED 21:00:09 T=-.193 RC=0 \$.11

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