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 AUTH.NAME AUTHOR AFFILIATION  
 CONWAY,W.F. Florida Power & Light Co.  
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SUBJECT: "Marine Turtle Removals St Lucie Intake Canal for Apr-June 1988." W/880815 ltr.

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MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL  
APRIL 1988

DATE CAPTURED	SPECIES	TAG NUMBERS	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMPL (cm)	STTL (mm)	WEIGHT (lbs)
Live Removals									
040588	<u>C. caretta</u> <sup>1</sup>	PPN463/AAJ578	52.7	NM	56.0	62.0	48.7	165	76
040688	<u>C. caretta</u>	AAJ579/PPN464	56.6	57.4	61.0	59.8	44.5	122	60
040688	<u>C. caretta</u>	PPN465/AAJ580	49.5	50.5	53.6	54.4	40.1	120	42
040788	<u>C. caretta</u>	PPN466/AAJ581	51.9	52.6	57.1	53.5	40.3	111	39
041588	<u>C. caretta</u>	PPN467/AAJ582	55.5	56.6	60.6	60.3	43.5	136	58
041988	<u>C. caretta</u> <sup>2</sup>	PPD624/PPD674	67.1	68.6	73.9	68.0	51.1	148	100
042088	<u>C. caretta</u>	AAJ583/PPN468	45.4	46.5	50.8	49.5	36.2	103	32
042088	<u>C. caretta</u> <sup>3</sup>	PPN469/AAJ584	85.0	90.8	96.3	91.7	68.1	224	214
042288	<u>C. caretta</u>	AAJ585/PPN470	55.8	57.1	61.4	59.8	45.4	125	64
042688	<u>C. caretta</u>	AAJ586/PPN471	63.4	65.2	70.0	67.0	49.9	155	87
042788	<u>C. caretta</u>	AAJ588/PPN472	62.2	63.3	67.6	65.0	48.9	120	73
042788	<u>C. mydas</u>	PPN473/PPN474	28.7	29.1	30.5	26.6	23.7	60	6.7
042988	<u>C. mydas</u>	PPN475/NNC650	27.9	28.3	29.3	26.3	22.7	42	6.2
Dead Removals									
041388	<u>C. caretta</u>	NOT TAGGED	75.0	76.0	78.7	78.4	NM	NM	NM
042288	<u>C. caretta</u>	NOT TAGGED	65.7	67.3	72.6	69.6	52.6	NM	NM

NM = not measured

8808220044 880630  
PDR ADOCK 05000335  
R PDC

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SMCL = straight minimum carapace length  
SSCL = straight standard carapace length  
CSCL = curved standard carapace length  
CMCW = curved maximum carapace width  
SMPL = straight midline plastron length  
STTL = straight total tail length

<sup>1</sup>Posterior portion of carapace missing; length measurements affected.

<sup>2</sup>ABI tag return. This turtle was removed from the intake canal, tagged (AAH-565) and released 6.5 miles north of the intake on 22FEB84. The turtle was recaptured in the intake canal and released 7.0 miles south of the intake on 16MAR84. It was recaptured in the intake canal on 24MAY85; AAH-565 was removed and replaced with AAH-986 and AAH-987; and, the turtle was released 3.0 miles south of the intake. It was recaptured on 18JUL85 and released 7.0 miles south of the intake. Upon recapture on 11AUG86, AAH-986 (which was missing) was replaced with PPD-624, and the turtle was released 3.0 miles south of the intake. It was recaptured in the intake canal on 3NOV86; PPD-674 was applied and the turtle was released 3.0 miles south of the intake. Upon recapture on 26AUG87, AAH-987 was missing. The turtle was released 6.3 miles south of the intake on 26AUG87.

<sup>3</sup>Female

NOTE: AAJ587, NNC648, NNC649 malfunctioned and were not applied to turtles.



MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL  
MAY 1988

DATE CAPTURED	SPECIES	TAG NUMBERS	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	WEIGHT (lbs)
Live Removals									
050288	<u>C. caretta</u>	PPN476/AAJ589	62.3	63.8	67.7	63.2	53.2	49.6	81
050588	<u>C. caretta</u>	PPN477/AAJ590	57.0	58.3	64.0	61.9	51.6	45.1	64
050688	<u>C. caretta</u>	AAJ591/PPN478	60.0	60.9	65.7	65.0	51.5	47.0	78
051188	<u>C. caretta</u> <sup>1</sup>	AAJ529/PPN339	63.5	64.9	70.4	68.0	52.8	47.1	84
051188	<u>C. caretta</u> <sup>2</sup>	AAJ592/PPN479	80(E)	NM	86(E)	78.7	62.3	61.8	178
051288	<u>C. caretta</u> <sup>3</sup>	PPN480/AAJ593	91.3	91.5	96.5	91.0	71.3	72.8	241
051388	<u>C. caretta</u>	AAJ594/PPN481	77.9	79.6	83.9	77.6	85.4	60.2	149
051488	<u>C. mydas</u>	PPN482/PPN483	25.2	25.5	26.6	22.9	20.7	20.7	4.4
051688	<u>C. caretta</u>	AAJ595/PPN484	63.1	64.3	68.7	63.7	52.3	49.7	71
051688	<u>C. caretta</u> <sup>3</sup>	PPN485/AAJ596	94.5	96.3	101.1	93.2	70.9	73.3	262
051788	<u>C. caretta</u> <sup>3</sup>	AAJ597/PPN486	89.0	90.4	96.2	88.8	70.3	69.6	259
051788	<u>C. caretta</u>	PPN487/AAJ598	58.8	60.0	63.5	58.3	49.5	45.4	68
051788	<u>C. caretta</u>	AAJ599/PPN488	62.2	63.3	67.8	64.7	54.6	48.7	89
051788	<u>C. caretta</u>	PPN489/AAJ600	51.7	52.9	57.6	52.4	43.2	40.5	46
051788	<u>C. caretta</u> <sup>4</sup>	PPN490/AAJ601	82.2	83.6	87.5	76.3	62.8	60.9	157
051988	<u>C. caretta</u>	AAJ602/PPN491	51.8	52.1	57.8	54.2	43.7	41.0	50
051988	<u>C. caretta</u>	AAJ603/PPN492	54.8	55.5	59.8	57.8	46.8	42.7	58
052088	<u>C. caretta</u> <sup>3</sup>	AAJ604/PPN493	85.8	86.1	93.2	88.0	69.8	65.4	213
052088	<u>C. caretta</u> <sup>3</sup>	AAJ605/PPN494	93.6	94.4	99.3	98.8	74.3	68.9	244
052088	<u>C. caretta</u> <sup>3</sup>	AAJ606/PPN495	93.9	95.0	100.0	92.0	70.7	70.0	254



MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL

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MAY 1988

DATE CAPTURED	SPECIES	TAG NUMBERS	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	WEIGHT (lbs)
Live Removals (cont'd)									
052388	<u>C. caretta</u>	PPN496/AAJ607	78.4	80.5	85.2	80.9	64.3	61.2	164
052488	<u>C. caretta</u> <sup>3</sup>	PPN497/AAJ610	88.9	89.5	97.4	88.0	67.0	69.5	239
052488	<u>C. caretta</u>	PPN498/AAJ614	51.8	52.6	56.4	53.2	44.8	41.2	51
052488	<u>C. mydas</u>	PPN499/PPN500	29.1	29.5	30.4	26.0	23.0	23.5	6.7
052588	<u>C. caretta</u>	PPW201/AAJ615	57.2	58.4	63.4	63.4	49.1	44.8	64
052588	<u>C. caretta</u>	PPW202/AAJ616	59.8	60.7	64.8	64.3	51.4	44.2	71
052588	<u>C. caretta</u> <sup>5</sup>	AAJ617/PPW203	99.1	99.8	105.0	88.4	69.9	71.0	275
052688	<u>C. caretta</u> <sup>6</sup>	PPW204	88.6	90.4	95.4	82.4	64.1	67.3	210
052688	<u>C. mydas</u>	PPW205/PPW206	27.6	28.2	29.1	25.2	21.9	23.0	5.8
053188	<u>C. caretta</u> <sup>3</sup>	PPW207/AAJ618	95.1	96.5	101.0	96.4	73.1	73.3	259
053188	<u>C. caretta</u> <sup>3</sup>	PPW208/AAJ619	81.3	82.4	87.2	81.5	59.8	63.3	174

<sup>1</sup>ABI tag return. This turtle was removed from the intake canal, tagged and released 0.5 miles south of the intake on 1SEP87.

<sup>2</sup>Female. Posterior portion of carapace missing; therefore, length measurements were estimated.

<sup>3</sup>Female.

<sup>4</sup>Male? Tail length = 265mm.

<sup>5</sup>Male

<sup>6</sup>Female. Right front flipper missing; therefore, only one tag applied.





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SMCL = straight minimum carapace length  
SSCL = straight standard carapace length  
CSSL = curved standard carapace length  
CMCW = curved maximum carapace width  
SMCW = straight maximum carapace width  
SMPL = straight midline plastron length

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NM = not measured

E = estimated

NOTE: AAJ608, AAJ609, AAJ611, AAJ612 and AAJ613 malfunctioned and were not applied to turtles.



MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL  
JUNE 1988

DATE CAPTURED	SPECIES	TAG NUMBERS	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	WEIGHT (lbs)
Live Removals									
060188	<u>C. caretta</u> <sup>1</sup>	AAJ620/PPW209	99.7	102.3	107.5	100.0	73.9	78.7	312
060188	<u>C. mydas</u>	PPW210/PPW211	71.1	71.3	75.2	66.5	55.5	58.3	106
060188	<u>C. caretta</u> <sup>2</sup>	AAJ621/PPW212	NM	93.7	101.7	89.0	69.6	68.2	248
060288	<u>C. caretta</u> <sup>1</sup>	AAJ622/PPW213	82.4	83.8	88.0	81.0	64.3	64.1	182
060388	<u>C. caretta</u> <sup>3</sup>	PPW214/AAJ623	81.8	NM	88.8	88.6	69.3	66.5	216
060388	<u>C. caretta</u> <sup>1</sup>	PPW215/AAJ624	83.9	85.0	90.2	82.7	66.0	64.4	181
060388	<u>C. caretta</u>	AAJ625/PPW216	50.8	52.7	57.9	56.3	44.6	40.2	42
060388	<u>C. mydas</u>	PPW217/PPW218	30.3	30.7	31.7	27.8	25.4	25.0	8.0
060688	<u>C. caretta</u>	PPW219/AAJ626	51.3	52.4	55.9	54.3	43.3	39.2	44
060688	<u>C. caretta</u> <sup>1</sup>	PPW220/AAJ627	87.7	88.5	94.0	90.4	67.8	66.5	215
060788	<u>C. caretta</u>	PPW221/AAJ628	51.7	52.8	56.1	55.3	46.0	42.7	51
060788	<u>C. caretta</u> <sup>2</sup>	PPW222/AAJ629	NM	95.8	103.9	95.9	73.6	74.3	297
060788	<u>C. caretta</u> <sup>1</sup>	PPW223/AAJ630	94.1	96.2	100.5	90.0	70.6	68.6	266
060788	<u>C. mydas</u> <sup>4</sup>	PPV531/PPV532	27.7	28.1	29.1	25.0	22.2	23.6	6.1
060888	<u>C. caretta</u>	PPW224/AAJ631	65.0	66.0	69.3	66.9	56.3	49.7	95
061388	<u>C. caretta</u> <sup>1</sup>	PPW225/AAJ632	87.3	87.9	94.0	84.0	66.5	67.0	202
061488	<u>C. caretta</u> <sup>5</sup>	PPW226/AAJ633	93.5	95.8	102.1	91.5	73.3	68.0	240
061488	<u>C. caretta</u> <sup>1</sup>	PPW227/AAJ634	87.4	89.9	93.5	91.0	73.6	70.0	250
061588	<u>C. caretta</u> <sup>1</sup>	PPW228/AAJ635	99.8	101.8	107.8	95.2	79.2	76.5	307
062088	<u>C. caretta</u>	AAJ636/PPW229	48.5	49.2	52.6	53.6	44.1	38.9	40

MARINE TURTLE REMOVALS  
ST. LUCIE PLANT INTAKE CANAL

Page 2  
JUNE 1988

DATE CAPTURED	SPECIES	TAG NUMBERS	SMCL (cm)	SSCL (cm)	CSCL (cm)	CMCW (cm)	SMCW (cm)	SMPL (cm)	WEIGHT (lbs)
Live Removals (cont'd)									
062188	<u>C. caretta</u> <sup>1</sup>	AAJ637/PPW230	86.8	90.0	95.3	85.3	67.3	70.7	210
062188	<u>C. caretta</u> <sup>1</sup>	AAJ638/PPW231	89.4	90.5	99.2	84.9	66.7	66.0	234
062388	<u>C. caretta</u> <sup>1</sup>	PPW232/AAJ639	99.5	100.5	105.9	92.7	71.0	71.0	272
062388	<u>C. caretta</u> <sup>1</sup>	PPW234/AAJ641	98.2	99.1	104.4	95.0	71.8	72.1	273
062488	<u>C. caretta</u> <sup>1</sup>	AAJ640/PPW233	84.1	86.0	91.3	86.3	67.3	67.5	213
062488	<u>C. mydas</u>	PPW236/PPW235	33.8	33.9	35.9	29.1	26.7	26.9	10.7
062888	<u>C. caretta</u> <sup>1</sup>	PPW237/AAJ642	95.9	96.8	104.9	94.6	73.8	72.8	267
062888	<u>C. caretta</u> <sup>1</sup>	AAJ643/PPW238	88.2	89.4	96.5	90.8	68.3	64.6	208
062888	<u>C. caretta</u>	PPW239/AAJ644	61.8	63.0	66.4	62.0	50.4	47.1	73
062988	<u>C. caretta</u> <sup>1</sup>	PPW240/AAJ645	100.7	102.8	107.2	97.0	78.0	77.6	308
062988	<u>C. caretta</u>	AAJ646/PPW241	60.0	61.8	66.5	63.7	50.5	47.5	74
063088	<u>C. caretta</u>	PPW242/AAJ647	64.3	64.9	69.8	66.8	54.8	50.3	83
063088	<u>C. caretta</u> <sup>6</sup>	PPW243	88.1	89.2	92.4	93.0	71.0	69.0	245
063088	<u>C. caretta</u>	PPW251/AAJ651	77.8	79.0	83.3	79.3	62.4	60.3	125
Dead Removals									
061088	<u>C. mydas</u>	NOT TAGGED	29.8	30.4	31.9	27.0	24.2	25.2	7.1
061588	<u>C. mydas</u>	NOT TAGGED	37.5	38.0	41.0	35.2	30.4	31.4	15.4

<sup>1</sup>Female.

<sup>2</sup>Female. Accurate measurement of SMCL not possible due to injury to posterior of carapace.

<sup>3</sup>Female. Length measurements affected by injury to posterior carapace.



<sup>4</sup>This turtle was held at the House of Refuge Museum for treatment of a recent head injury. It was released 2.5 miles southeast of the St. Lucie Inlet on 1 July 1988.

<sup>5</sup>Male.

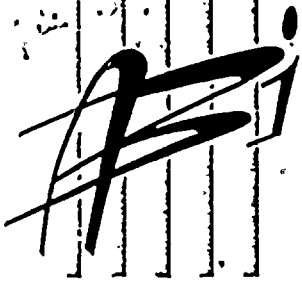
<sup>6</sup>Female. Right front flipper missing; therefore, only one tag applied.

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SMCL = straight minimum carapace length  
SSCL = straight standard carapace length  
CSCL = curved standard carapace length  
CMCW = curved maximum carapace width  
SMCW = straight maximum carapace width  
SMPL = straight midline plastron length

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NM = not measured



ENVIRONMENTAL  
H E A L T H  
S P E C I A L I S T S

JUL 13 1988

Applied Biology, Inc.  
P.O. Box 974  
Jensen Beach, FL 34958

July 13, 1988

Mr. J. Alan Huff  
Florida Department of  
Natural Resources  
Bureau of Marine Research  
100 Eighth Avenue, S.E.  
St. Petersburg, FL 33701-5095

Dear Alan:

Seventy-one loggerhead and eleven green turtles were removed from the St. Lucie Plant intake canal during the April-June quarter of 1988. Two loggerheads and two greens were dead when removed. No turtles were reported from other power plants.

Measurements for all animals are attached. Please note that beginning in May straight total tail length has been deleted and straight maximum carapace width has been added as a routine measurement.

All but one of the live turtles were released into the ocean off Hutchinson Island. The one exception, a juvenile green turtle captured on 7 June 1988, was released 2.5 miles southeast of the St. Lucie Inlet.

Please feel free to contact me if you have any questions concerning the enclosed data.

Sincerely,

R. Erik Martin  
Senior Scientist

Enclosure

cc: J.R. Wilcox (FPL)  
C.A. Oravetz (NMFS)  
B.A. Schroeder (NMFS)  
R.G. Ernest (ABI)



AUGUST 15 1988

L-88-346

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Re: St. Lucie Units 1 and 2  
Docket Nos. 50-335 and 50-389  
Quarterly Turtle Activities Report

Attached for your information is a copy of the subject report for the second quarter of 1988, which was submitted to the Florida Department of Natural Resources, Bureau of Marine Research on July 13, 1988.

Very truly yours,

W. F. Conway  
Senior Vice President - Nuclear

WFC/GRM/cm

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator, Region II,  
USNRC  
Senior Resident Inspector, USNRC, St. Lucie Plant

GRMQTAR

JE25  
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