



Exelon Generation®

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10 CFR 50.2

August 15, 2014

RA-14-070

US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Sea Turtle Incidental Take Report 2014-4

The attached report provides detailed information regarding the recent incidental take of a live Kemp's ridley sea turtle at Oyster Creek Nuclear Generating Station (OCNGS) on July 19, 2014.

If you have any questions or require additional information, please do not hesitate to contact Kathryn Houlahan at (609) 971-2588.

Sincerely,

Jeffrey P. Dostal
Plant Manager
Oyster Creek Nuclear Generating Station

Enclosures:

Incidental Take Report 2014-4 with photograph
Marine Mammal Stranding Center STSSN Reports for turtle 2014-4

IE77
NRR

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NJ Department of Environmental Protection
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P.O. Box 420, Mail Code 33-01
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	Incidental Take 2014-4
OPERATIONS DEPARTMENT:	
Observer's full name:	Brian Breidinger
Reporter's full name:	Jeremy Sharkey
Species Identification (Key attached):	Kemp's ridley
Site of Impingement (CWS or DWS):	DWS
Bay Number:	2
Date animal observed:	19-July-14
Time animal observed:	20:00
Date animal collected:	19-July-14
Time animal collected:	20:10
CONDITIONS AT COLLECTION:	
Tidal Stage:	Low Tide
Cloud conditions:	Cloudy
Precipitation:	None
Intake water temperature:	79°F
Other conditions	None
Number of CW pumps running:	4
Number of DW pumps running:	2
Reactor power level at observation:	100%
Reactor power previous 48-hours:	100%
Date of last screen inspection:	19-July-14
Time of last screen inspection:	16:45
ENVIRONMENTAL DEPARTMENT:	
Date Brigantine MMSC contacted:	19-July-14
Time Brigantine MMSC contacted:	20:20
Date Animal picked up by MMSC:	19-July-14
Time Animal picked up by MMSC:	21:40
State of animal when first observed:	Alive

Incidental Take 2014-4	
State of animal when collected:	Alive
State of animal when picked up:	Alive
State of animal arriving at MMSC:	Alive, with prop cut, damage to the right side of the carapace, and a broken beak.
Final disposition of animal:	Alive, taken to rehab facility
Carapace Length - Curved	28.6 cm
Carapace Length - Straight	27.6 cm
Carapace Width - Curved:	29.0 cm
Carapace Width - Straight:	25.3 cm
Weight - lbs (kgs)	6.6 lbs.
Existing Tag Number	no tag
Photograph attached	Yes
Diagram of wounds, abnormalities, tag locations attached	Yes
Description of Animal	Female Kemp's ridley

SEA TURTLE STRANDING AND SALVAGE NETWORK - STRANDING REPORT

OBSERVER'S NAME / ADDRESS / PHONE:

First Danielle M.I. Last Monaghan

Affiliation Marine Mammal Stranding Center

Address PO Box 773, 3625 Brigantine Blvd., Brigantine, NJ 08203

Area code/Phone number (609) 266-1538

STRANDING DATE:

Year 20 14 Month 07 Day 19

Turtle number by day 01

Field ID # MMSC-14-094

Coordinator must be notified within 24 hrs; this was done by ☒ phone (609) 266-0538

☐ email ☐ fax

SPECIES: (check one)

- ☐ CC = Loggerhead
☐ CM = Green
☐ DC = Leatherback
☐ EI = Hawkbill
☒ LK = Kemp's Ridley
☐ LO = Olive Ridley
☐ UN = Unidentified

Check Unidentified if not positive. Do Not Guess.

Carcass necropsied? ☒ Yes ☐ No

Photos taken? ☒ Yes ☐ No

Species verified by coordinator?

☒ Yes ☐ No

SEX:

- ☐ Undetermined
☒ Female ☐ Male

Does tail extend beyond carapace?

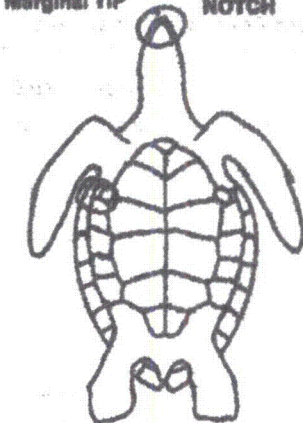
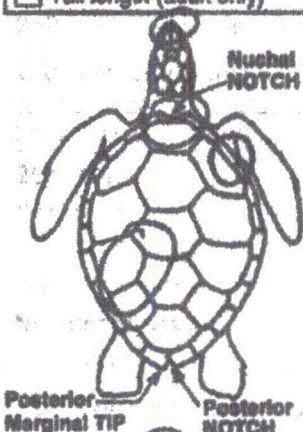
☐ Yes; how far? ☐ cm ☐ in

☒ No

How was sex determined?

☒ Necropsy

☐ Tail length (adult only)



STRANDING LOCATION:

☐ Offshore (Atlantic or Gulf beach) ☒ Inshore (bay, river, sound, inlet, etc)

State New Jersey County Ocean

Descriptive location (be specific) Forked River, Oyster Creek Nuclear Generating Station dilution pool

Latitude 39.814141°N

Longitude 74.207657°W

CONDITION: (check one)

- ☒ 0 = Alive
☐ 1 = Fresh dead
☐ 2 = Moderately decomposed
☐ 3 = Severely decomposed
☐ 4 = Dried carcass
☐ 5 = Skeleton, bones only

TAGS: Contact coordinator before disposing of any tagged animal!

Checked for flipper tags? ☒ Yes ☐ No

Check all 4 flippers. If found, record tag number(s) / tag location / return address

PIT tag scan? ☒ Yes ☐ No

If found, record number / tag location

Coded wire tag scan? ☐ Yes ☒ No

If positive response, record location (flipper)

Unable to check for

Checked for living tag? ☐ Yes ☒ No

If found, record location (scute number & side)

FINAL DISPOSITION: (check)

☐ 1 = Left on beach where found; painted? ☐ Yes* ☐ No(5)

☐ 2 = Buried: ☐ on beach / ☐ off beach; carcass painted before buried? ☐ Yes* ☐ No

☐ 3 = Salvaged: ☐ all / ☐ part(s), what/why?

☐ 4 = Pulled up on beach/dune; painted? ☐ Yes* ☐ No

☐ 6 = Alive, released

☒ 7 = Alive, taken to rehab. facility, where? MMSC

☐ 8 = Left floating, not recovered; painted? ☐ Yes* ☐ No

☐ 9 = Disposition unknown, explain

*If painted, what color?

CARAPACE MEASUREMENTS: (see drawing)

Using calipers

Straight length (NOTCH-TIP)

Circle unit
 27.6 ☒ cm ☐ in

Minimum length (NOTCH-NOTCH)

☐ cm ☐ in

Straight width (Widest Point)

25.3 ☒ cm ☐ in

Using non-metal measuring tape

Curved length (NOTCH-TIP)

Circle unit
 28.6 ☒ cm ☐ in

Minimum length (NOTCH-NOTCH)

☐ cm ☐ in

Curved width (Widest Point)

29.0 ☒ cm ☐ in

Weight ☒ actual / ☐ est.

Circle unit
 6.6 ☐ kg ☒ lb

Mark wounds / abnormalities on diagrams at left and describe below (note tar or oil, gear or debris entanglement, propeller damage, epibionts, papillomas, emaciation, etc.). Please note if no wounds / abnormalities are found.

Alive with prop cut to center left carapace, damaged to edge on right side of carapace on to front nuchal scute area. The most severe damage was to the animal's beak. The upper mandible was cracked on both sides all the way up to the nostrils.

7-20-2014- The animal was euthanized and the necropsied by MMSC staff.

SEA TURTLE STRANDING AND SALVAGE NETWORK - GROSS NECROPSY REPORT

IDENTIFICATION

1. STSSN #: _____ 2. Other state identifier/ID: MMSC-14-094 3. Rehab: ☒ Yes ☐ No

4. Found dead: ☐ Yes ☒ No 5. If No, date of death 07/20/14

6. Euthanized: ☒ Yes ☐ No 7. Frozen/Thawed: ☐ Yes ☒ No 8. Condition at necropsy: ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

9. Date necropsied: 07/20/14 10. Examiner: Jay Page/Mike Kapp 11. Affiliation: Marine Mammal Stranding Center

12. Necropsy description: ☒ External & internal examination ☐ External examination only ☐ Incomplete carcass

13. Disposition of carcass: ☐ Buried on beach ☒ Buried off site ☐ Rendered ☐ Incinerated ☐ Other

14. Species: ☐ CC ☐ CM ☐ DC ☒ XLK ☐ EI ☐ LO ☐ UNK 15. Sex: ☐ Male ☒ Female ☐ Undetermined

EXTERNAL EXAMINATION

16a. Body weight: 6.6 kg ☐ lb 16b. Actual ☐ est. 17. Eyes sunken: ☐ Yes ☒ No 18. Skeletal features prominent: ☐ Yes ☒ No

19. Heavily encrusted w/ epibiota: ☐ Yes ☒ No 20. Leeches: ☐ Yes ☒ No 21. Gooseneck barnacles: ☐ Yes ☒ No

22. Epibiota coverage: 22a. Head/appendages: <5 % 22b. Carapace: <10 % 22c. Plastron: <5 %

23. External Trauma/evidence of Human Interaction (T/HI): ☒ Yes ☐ No (if yes, complete 25) Use STSSN scale in photos

24. Other anomalies: ☐ Yes ☒ No (if yes, complete 25) **PHOTOGRAPHS TAKEN**

ANATOMIC LOCATION CODES:

Head (H) Neck (N) Eyes (E) Mouth (M) Carapace (C) Plastron (P) Tail (T) Vent (V)
 Use for 25a & 26a Front flipper - Right (R) Left (L) Rear flipper - Right (F) Left (G) All appendages (Y)

25a. T/HI-Type: (check all that apply)

Enter anatomic codes in blanks: (Example: @ Parallel slicing wounds(1) C)

- ☐ Parallel slicing wounds(1) _____ ☒ Single linear wound(2) H, C, P
- ☒ Partial/complete amputation(3) H ☐ Blunt/crushing(4) _____
- ☒ Fractures/Broken bones(5) L ☐ Dislocations(6) _____
- ☐ Probable bite wound(7) _____ ☐ Bottom paint(8) _____
- ☐ Ligature/entanglement-type(9) _____ ☐ Puncture(10) _____
- ☐ Entangling material attached(11) _____ ☐ Tar in mouth(12) _____
- ☐ Hook and/or line present (13) _____ ** If yes, complete 25a*
- ☐ Other(14) _____ describe: _____

25b. T/HI - multiple events

25c. T/HI-Description: (check all that apply)

Enter 25a. + anatomic codes: (Example: @ Exudate/fibrin 1C)

- ☐ Exudate/fibrin _____ ☒ Fibrous tissue formation 2H, C, P
- ☐ Bone formation/remodeling _____ ☒ Hemorrhage 5L
- ☐ Encapsulated sand/debris _____ ☐ Blood clots _____
- ☐ Completely healed _____ ☐ Other _____ describe under 25d

Parallel slicing wounds (cm): Chord length: _____

Cut span: _____ width: _____
 length: _____ depth: _____

Other wounds (cm): Diagram wounds/measurements on pg 3

Wound length: 8cm width: 0.5cm depth: 1.4cm

25d. T/HI-Comments (cont. pg 3): Several deep lacerations in head, carapace and plastron consistent with a propeller strike. One of the slices through the front of the head had nearly amputated the animals nares, maxilla and premaxilla. The coracoid bone of right pectoral girdle was also broken.

25e. T/HI-Fisheries/Entanglement data: (Fisheries gear, other entangling material)

Gear type:

- ☐ Netting ☐ Line & pot ☐ Line & buoy ☐ Unknown gear/line
- ☐ Hook ☐ Monofilament ☐ Braided line ☐ Other

Number of wraps around body part: _____ location: _____ ¹ (use anatomic codes)

Additional areas: _____ ²; _____ ³; _____ ⁴; _____ ⁵ (Example: 4 R)

☐ Material removed prior to necropsy

Associated injury: (additional comment under 25d)

- ☐ Ligature - skin incised/ulcerated
- ☐ Ligature - full thickness (deep tissue/bone exposed)
- ☐ Ligature - partially/completely healed

Gear description (color, shape, size): _____ T/HI-Material collected*: ☐ Yes ☐ No

Gear identification information: _____ Disposition of material: _____

26a. Anomalies-Type: (check all that apply)

Enter anatomic codes in blanks: (Example: @ Ulcers(16) Y)

- ☐ Fibropapillomas/Papillomas(15) _____ ☐ Ulcers(16) _____
- ☐ Crust/exudate(17) _____ ☐ Masses (non-FP or uncertain)(18) _____
- ☐ Other(19) _____

26b. Anomalies: multiple types

PHOTOGRAPHS TAKEN

26c. Other anomalies-Description: (check all that apply)

Extent of observation: (Refer to Pap Map for FP turtles)

Enter 26a. + anatomic codes: (Example: @ 10-25% affected 16Y)

- ☐ <5% surface affected _____ ☐ 10-25% affected _____
- ☐ >25-50% affected _____ ☐ >50% affected _____
- ☐ Visual field involved _____ ☐ Both eyes _____
- ☐ Mouth obstructed _____

26d. Anomalies-Comments (cont. pg 3): _____

INTERNAL EXAMINATION (comments extended to page 3 - optional)**NUTRITIONAL CONDITION - INTERNAL**27. Muscle status: ☒ Well-muscled/No atrophy ☐ Mild to moderate atrophy ☐ Severe atrophy28. Fat status: ☐ Abundant/No atrophy ☒ Mild to moderate atrophy ☐ Severe atrophy29a. CARDIOVASCULAR SYSTEM (heart/major vessels) - Examined: ☒ Yes ☐ No 29b. Blood in Heart chambers: ☒ Yes ☐ No

29c. CV-Findings/Comments: NSF

30a. HEPATOBILIARY SYSTEM (liver and gall bladder) - Examined: ☒ Yes ☐ No30b. Liver Findings: ☒ No significant findings ☐ Severe atrophy (shrunken, black) ☐ Trauma ☐ Masses (describe under comments) ☐ Other

30c. HB-Findings/Comments: Liver appeared normal. The gall bladder appeared slightly enlarged.

ANATOMIC LOCATION CODES: Mouth(M) Esophagus(G) Stomach(S) Proximal intestine(P) Distal intestine(D) Cloaca(L)31a. ALIMENTARY SYSTEM (includes spleen and pancreas) - Examined: ☒ Yes ☐ No31b. GI-Findings: (check all that apply) Enter anatomic codes in blanks: (Example: ☒ Ulcers(20) 2)☐ Ulcers(20) ☐ Perforation (21) ☐ Masses(22) ☐ Impaction(23) ☐ Obstruction(24)☐ Intussusception(25) ☐ Perforation(26) ☐ Plication(27) ☐ Other(28)31c. GI-percentage of affected area: Enter 31b. + anatomic codes. (Example: ☒ >25-50 affected 202)☐ <5% ☐ 10-25% ☐ >25-50% ☐ >50% ☐ N/A31d. GI-Foreign material: ☐ Yes ☒ No (If yes, complete 32)31e. Injury/lesion associated with foreign material: ☐ Yes ☒ No If yes, give entry for 31b: (Example: 21.G.)

GI-Contents (include & note any biotic impacted material):

31f. Esophagus: ☒ Empty ☐ Contents, describe:31g. Stomach: ☒ Empty ☐ Contents, describe:31h. Proximal intestine: ☒ Empty ☐ Contents, describe:31i. Distal intestine: ☐ Empty ☒ Contents, describe: Fair amount of various crab parts.

31j. GI-Findings/Comments: NSF

32a. GI-Foreign material - type: ☐ Hook(29) ☐ Line(30) ☐ Hard plastic(31) ☐ Plastic bag(32) ☐ Balloon(33) ☐ Tar(34) ☐ Other(35)

32b. Material/lesion location(s): (use anatomic codes)

☐ PHOTOGRAPHS TAKEN32c. Material collected*: ☐ Yes ☐ No Disposition of material:

32d. Foreign material-Description of material & comments:

33a. UROGENITAL SYSTEM (kidneys, reproductive, urinary bladder) - Examined: ☒ Yes ☐ No33b. Gonads identified as: ☐ Testes (complete 31c-e) ☒ Ovaries (complete 31f-h) ☐ Unknown (Indicate sex in Page 1, Field 15)33c. Testes-characterization: ☐ Cylindrical ☐ Ellipsoidal ☐ Flat 33d. Testes-size: ___ length x ___ width (cm)33e. Epididymis-characterization: ☐ Not expanded from wall ☐ Distinct ridge ☐ Pendulous ☐ Obvious white coils33f. Ovaries-characterization: ☒ All follicles <4mm ☐ Developing follicles (4-24mm) ☐ Corpus luteum (>7mm) ☐ Corpus albicans

33g. Ovary length: 1.8 (cm)

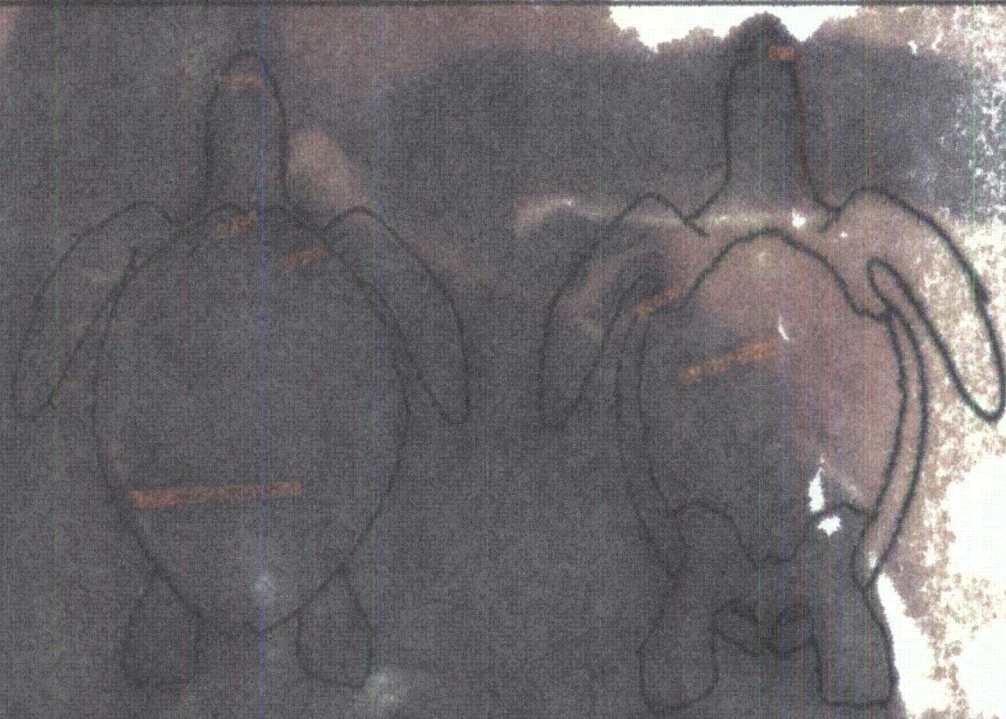
33h. Oviduct-characterization: ☒ White, straight (<3mm diam) ☐ Partially convoluted (3-15mm diam)☐ Very convoluted (>15mm diameter) ☐ Contains eggs (>24mm)

33i. UG-Findings/Comments: NSF

34a. RESPIRATORY SYSTEM - Examined: ☒ Yes ☐ No34b. Foam/froth in trachea: ☐ Yes ☒ No34c. If froth present: ☐ Above bifurcation ☐ Below bifurcation34d. Sand/sediment in trachea: ☐ Yes ☒ No34e. Lungs-hyperinflated: ☐ Yes ☒ No ☐ Don't know34f. Lungs-other anomalies: ☐ No significant findings ☐ Exudate in airways ☐ Masses ☐ Aspirated debris ☒ Other

34g. RESP-Findings/Comments: A very small portion of the left lung was affected by one of the prop cuts that penetrated the carapace into the pleural cavity. Despite a small amount of necrotic tissue, the remainder of the lung appeared normal.

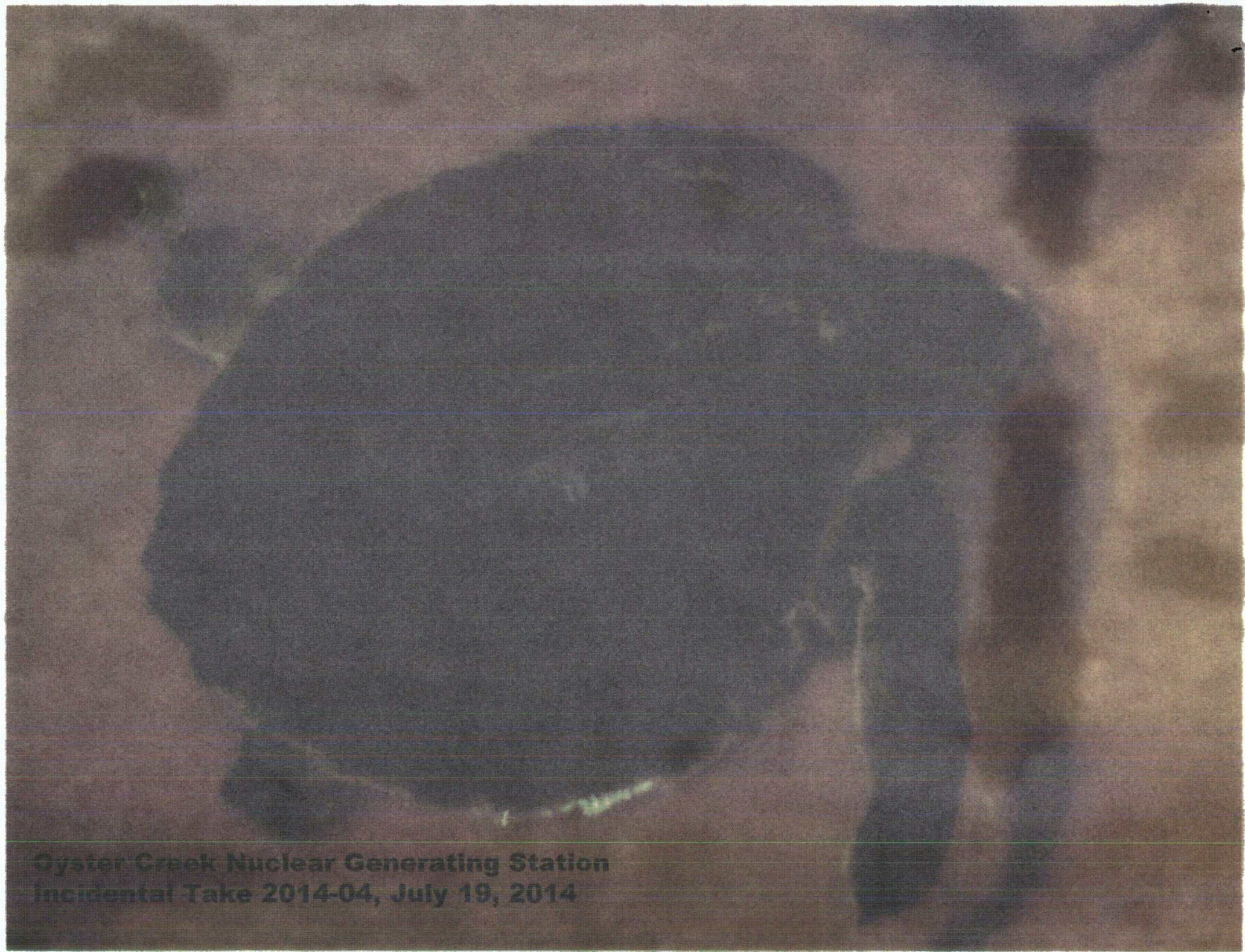
35. Other Comments (including nervous system or other observations): This animal had suffered several traumatic injuries that are consistent with being stuck by a boat propeller. The most significant of these injuries occurred to the animal's head. The naris, premaxilla and maxilla were nearly completely severed from the head. There was also an associated fracture to the right orbit. The animal was unable to eat due to the extent of these injuries and it was unlikely the animal could recover. Our veterinarian decided it was best to euthanize the animal. All wounds were in the early stages of healing and some of the more significant wounds had some necrosis at the margins. A necropsy was performed and it was apparent that the animal had not eaten for quite some time. Only the distal intestine contained any evidence of digesta, the remainder of the GI tract was completely empty.



Specimen (label w/ ID#)	Fixed	Fixed - bagged	Frozen-Foil	Other (specify)

DECLARATION

*All fisheries gear should be submitted to Pascagoula (SE) or North Kingston (NE) NOAA laboratories for ID



Oyster Creek Nuclear Generating Station
Incidental Take 2014-04, July 19, 2014