



LR-E14-0040

EPP 5.4.2 Appendix B

MAR 10 2014

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
ARTICLE NUMBER: 7011 3500 0000 5084 9889

SUBJECT: **REPORT OF IMPINGEMENT OF ATLANTIC STURGEON
SALEM GENERATING STATION
DOCKET NO. 50-272**

The Nuclear Environmental Event Report, "Report of Impingement of Atlantic Sturgeon" is being submitted pursuant to the requirements of Section 5.4.2 of Appendix B, Environmental Protection Plan, to the Operating License for the Salem Generating Station, PSEG Nuclear LLC (PSEG).

Please find enclosed a letter and (2) attachment with further information regarding this impingement event. This report reflects a deceased Atlantic Sturgeon collected on February 19th, 2014.

If you have any questions or require additional information, please do not hesitate to contact Kenneth Strait, Manager – Biological Programs at (856) 339-3929.

Sincerely,

A handwritten signature in black ink, appearing to read "John F. Garecht".

John F. Garecht

for
Lawrence M. Wagner
Plant Manager - Salem
PSEG Nuclear LLC

Attachments (2)

IE77
MRL

REPORT OF IMPINGEMENT OF ATLANTIC STURGEON

In accordance with Section 5.4.2 of Appendix B, Environmental Protection Plan, to the Operating License for the Salem Generating Station, PSEG Nuclear LLC (PSEG) hereby transmits notification of a nonroutine event, and documents the occurrence and removal of an Atlantic sturgeon (*Acipenser oxyrinchus*) from the Salem Generating Station circulating water intake structure trash bars.

Consultation pursuant to Section 7 of the Endangered Species Act of 1973 (ESA) between NRC and the National Marine Fisheries Service (NMFS) on the effects of the operation of Salem Station on threatened and endangered species has been ongoing since 1979. The most recent revision to the Biological Opinion and Incidental Take Statement issued in January 1999 exempts the specified annual take of shortnose sturgeon and sea turtles. In advance of relicensing for Salem Station, consultation pursuant to Section 7 of the ESA between NRC and NMFS was reinitiated in 2009. On April 6, 2012, the NMFS listed five Distinct Population Segments of Atlantic sturgeon as threatened or endangered under the ESA. In May 2012, NRC requested consultation on the effects of the continued operation of Salem Station on Atlantic sturgeon. The NMFS issued a draft Biological Opinion and Incidental Take Statement (ITS) in July 2012 that, when finalized, will authorize a specified incidental take of both Atlantic sturgeon and shortnose sturgeon associated with operation of the Salem Station circulating water intake system.

Pursuant to Section 5.4.2 of the Environmental Protection Plan for Salem Station, nonroutine events which require reporting to other federal agencies shall be reported in accordance with the other agencies' reporting requirements. Accordingly, enclosed please find two (2) attachments. Attachment 1 provides the information requested by the NMFS in Appendix II to the current ITS and in Appendix B, Part 2, to the revised draft ITS. Attachment 2 is a copy of a Sturgeon Salvage Form verbally requested by the NMFS.

There are no commitments contained in this letter.

LR-E14-0040
Document Control Desk

cc: Mr. William Dean, Administrator - Region I
U. S. Nuclear Regulatory Commission
2100 Renaissance Blvd., Suite 100
King of Prussia, PA 19406-2713

Mr. John Hughey, Licensing Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 0-4D-3
Rockville, MD 20852

Mr. P. Mulligan, Manager
Bureau of Nuclear Engineering
New Jersey Department of Environmental Protection
PO Box 420
Mail Code: 33-01
Trenton, NJ 08625-0420

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bc: Salem Site Vice President
Salem Plant Manager
Director – Regulatory Affairs
Manager – Nuclear Environmental Affairs
Manager – Biological Programs
Regulatory Assurance Manager – Salem
Salem Commitment Coordinator
USNRC Senior Resident Inspector - Salem
Lynn.Lankshear@noaa.gov
Dave.Jenkins@dep.state.nj
Jeanette.Bowers@dep.state.nj
Records Management

ATTACHMENT 1 (Sturgeon)

Observer's full name: Matthew S. Parris
Reporter's full name: Matthew S. Parris

Species Identification (Key attached): Atlantic Sturgeon (Acipenser oxyrinchus)

Site of Impingement (Unit 1 or 2, CWS or DWS, Bay #, etc.): SGS Unit 1; CWI bay 12A

Date animal observed: 2/19/14 Time animal observed: 14:35
Date animal collected: 2/19/14 Time animal collected: 14:35
Date rehab facility contacted: _____ Time rehab facility contacted: _____
Date animal picked up: _____ Time animal picked up: _____

Environmental conditions at time of observation (i.e., tidal stage, weather):
Air Temp. - 4.8°C; Sal. - 9.0 ppt; wind - North; Sky - fog; wave - calm; tide - Ebb 1 (92.6ft)

Date and time of last inspection of screen: 02/19/14 at 14:18
Water temperature (°C) at site and time of observation: 1.5°C

Number of pumps operating at time of observation: Unit 1 5 Unit 2 6

Average percent of power generating capacity achieved per unit at time of observation:

Unit 1 100 Unit 2 100

Average percent of power generating capacity achieved per unit over the 48 hours previous to observation:

Unit 1 100 Unit 2 100

Sturgeon Information:

Species Atlantic Sturgeon (Acipenser oxyrinchus)

Fork length (or total length) 580mm (FL)/684mm (TL) Weight 1.37 kg

Condition of specimen/description of animal

Dead specimen observed and retrieved by Salem Yard Crew during routine trash rack cleaning at Salem CWIB. Initial observations revealed the existence of minor bruising and abrasions to the skin surface and scutes along the left side of the body.

Fish Decomposed: NO SLIGHTLY MODERATELY SEVERELY

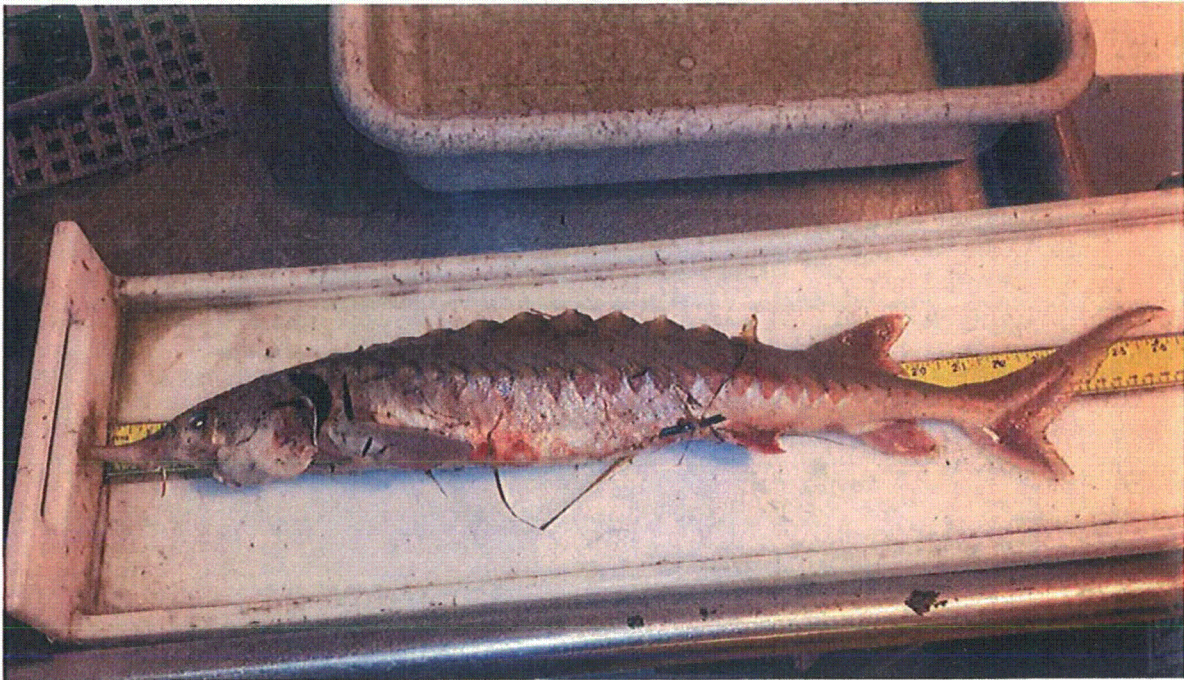
Fish tagged: YES / NO Please record all tag numbers. Tag # _____

Photograph attached: YES / NO

(please label species, date, geographic site and vessel name on back of photograph)

ATTACHMENT 1 (Sturgeon) continued

Photographs



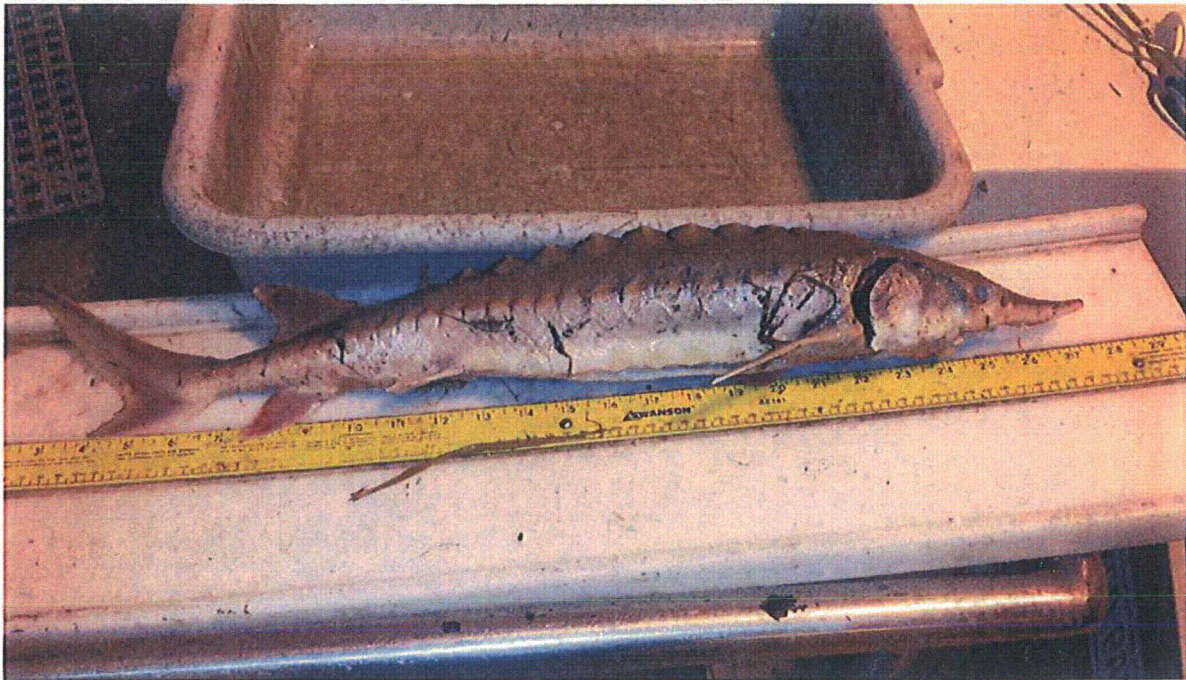
View showing size and condition of the deceased Atlantic Sturgeon (*Acipenser oxyrinchus*), retrieved on 02/19/14, at 14:35, by Salem Yard Crew personnel during routine trash rack cleaning at the Salem CWIB. In addition to some damage in the form of abrasions and bruising to the surface skin and scutes on the left side of the body, the specimen also revealed evidence of the initial stages of decomposition (02/19/14).



Another view of the sturgeon, which provides better detail of its condition at the time of retrieval (2/19/14).

ATTACHMENT 1 (Sturgeon) continued

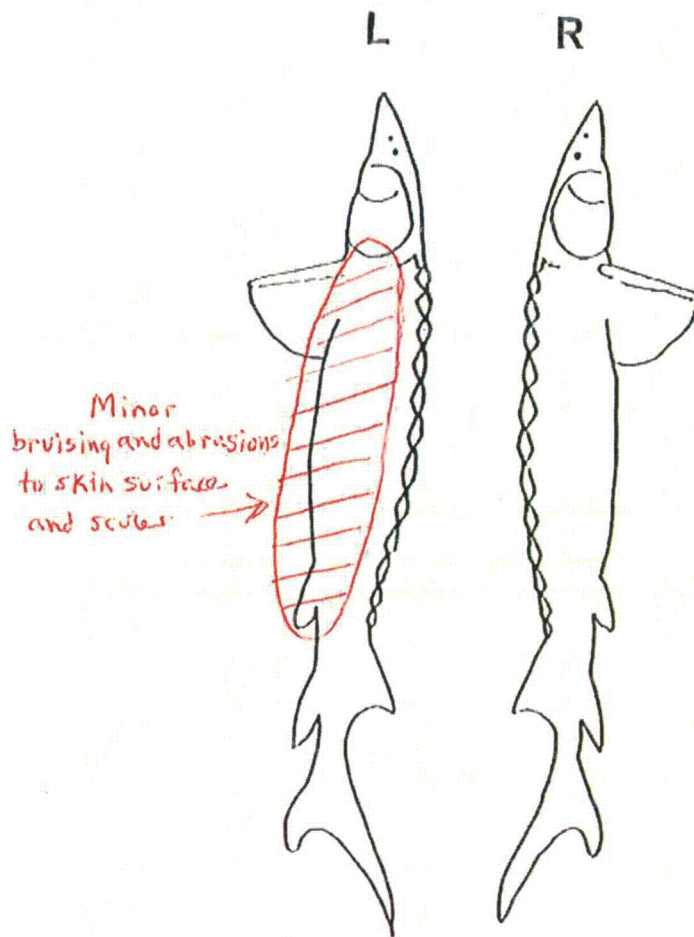
Photographs



View showing the right side of the body of the collected specimen. No observable damage was observed (2/19/14).

ATTACHMENT 1 (Sturgeon) continued

Draw wounds, abnormalities, tag locations on diagram and briefly describe below



Description of fish condition:

At the time of the processing of the deceased specimen, some minor damage was observed in the form of abrasions and bruising to the surface skin and scutes on the left side of the body (refer to illustration above). The specimen also revealed evidence of only minimal decomposition. Based on these observations it appears that the specimen has been deceased only a short period of time, however there is no indication that the death was caused by plant operations prior to or at the time of collection.

STURGEON SALVAGE FORM

For use in documenting dead sturgeon in the wild under ESA permit no. 1614 (version 05-16-2012)

INVESTIGATORS'S CONTACT INFORMATION

Name: First Douglas Last Potts
Agency Affiliation PSEG subcontractor Email dpotts@ecsi-del.com
Address 100 South Cass Street, Middletown, DE 19709
Area code/Phone number (302) 378-9881

UNIQUE IDENTIFIER (Assigned by NMFS)

DATE REPORTED:

Month 02 Day 19 Year 2014

DATE EXAMINED:

Month 02 Day 19 Year 2014

SPECIES: (check one)

- ☐ shortnose sturgeon
☒ Atlantic sturgeon
☐ Unidentified *Acipenser* species
Check "Unidentified" if uncertain.
See reverse side of this form for aid in identification.

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

River/Body of Water Delaware River City Hancocks Bridge State NJ
Descriptive location (be specific Removed from Circulating Water Intake Structure (CWIS)
Intake trash racks, intake bay 12A, during routine trash rack cleaning at the Salem Generating
Station, PSEG Nuclear LLC.

Latitude 39° 27'38.17 N (Dec. Degrees) Longitude 75° 32'10.08 W (Dec. Degrees)

CARCASS CONDITION at time examined: (check one)

- ☒ 1 = Fresh dead
☐ 2 = Moderately decomposed
☐ 3 = Severely decomposed
☐ 4 = Dried carcass
☐ 5 = Skeletal, scutes & cartilage

SEX:

- ☒ Undetermined
☐ Female ☐ Male
How was sex determined?
☐ Necropsy
☐ Eggs/milt present when pressed
☐ Borescope

MEASUREMENTS:

Circle unit

Fork length 58.0 cm
Total length 68.4 cm
Length ☒ actual ☐ estimate
Mouth width (inside lips, see reverse side) 1.8 cm
Interorbital width (see reverse side) 4.5 cm
Weight ☒ actual ☐ estimate 1.37kg

TAGS PRESENT? Examined for external tags including fin clips? ☒ Yes ☐ No Scanned for PIT tags? ☒ Yes ☐ No
Tag # Tag Type Location of tag on carcass

CARCASS DISPOSITION: (check one or more)

- ☐ 1 = Left where found
☐ 2 = Buried
☐ 3 = Collected for necropsy/salvage
☒ 4 = Frozen for later examination
☐ 5 = Other (describe) _____

Carcass Necropsied?

☐ Yes ☒ No

Date Necropsied: _____

Necropsy Lead: _____

PHOTODOCUMENTATION:

Photos/video taken? ☒ Yes ☐ No

Disposition of Photos/Video: PSEG Nuclear
Environmental Affairs and Nuclear
Regulatory Affairs personnel.

SAMPLES COLLECTED? ☐ Yes ☒ No

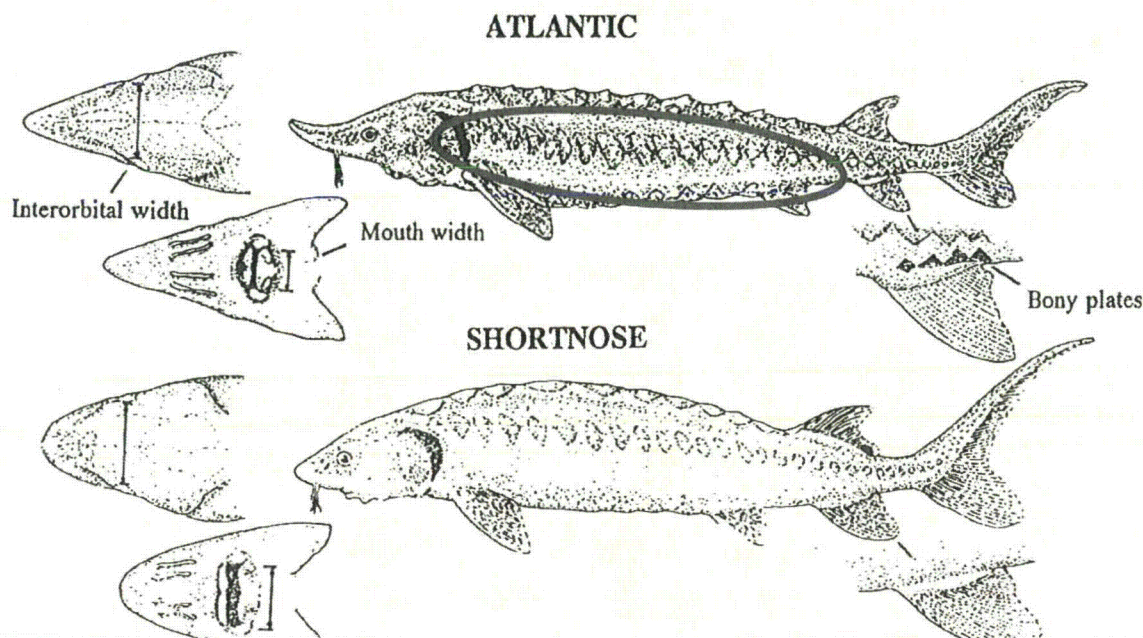
Sample How preserved Disposition (person, affiliation, use)

Comments: The deceased Atlantic Sturgeon was collected from the Salem Circulating Water Intake Structure during routine trash rack cleaning on February 19, 2014. Positive identification was made by Environmental Consulting Services personnel at 14:45pm. Length measurements, photos, and inspection for fin clips and tags (external and PIT) was completed. No tags were found. The State of New Jersey DEP, Division of Fish and Wildlife, and National Marine Fisheries (NMFS) have been notified of the incidental take. The fish was transported back to the ECSI main office in Middletown, DE, and preserved (frozen). At the request of the NMFS, Delaware DNREC was directed to take possession of the specimen. Transfer of custody, from ECSI to DNREC, occurred on 2/24/14 at 13:58pm.

Distinguishing Characteristics of Atlantic and Shortnose Sturgeon (version 07-20-2009)

Characteristic	Atlantic Sturgeon, <i>Acipenser oxyrinchus</i>	Shortnose Sturgeon, <i>Acipenser brevirostrum</i>
Maximum length	> 9 feet/ 274 cm	4 feet/ 122 cm
Mouth	Football shaped and small. Width inside lips < 55% of bony interorbital width	Wide and oval in shape. Width inside lips > 62% of bony interorbital width
*Pre-anal plates	Paired plates posterior to the rectum & anterior to the anal fin.	1-3 pre-anal plates almost always occurring as median structures (occurring singly)
Plates along the anal fin	Rhombic, bony plates found along the lateral base of the anal fin (see diagram below)	No plates along the base of anal fin
Habitat/Range	Anadromous; spawn in freshwater but primarily lead a marine existence	Freshwater amphidromous; found primarily in fresh water but does make some coastal migrations

* From Vecsei and Peterson, 2004



Describe any wounds / abnormalities (note tar or oil, gear or debris entanglement, propeller damage, etc.). Please note if no wounds / abnormalities are found.

The specimen was deceased at the time of initial observation and collection by Salem Yard Crew. Some minor damage was observed in the form of abrasions and bruising to the surface skin and scutes on the left side of the body (refer to illustration above). The specimen also revealed evidence of only minimal decomposition. Based on these observations it appears that the specimen has been deceased only a short period of time, however there is no indication that the death was caused by plant operations prior to or at the time of collection.

Data Access Policy: Upon written request, information submitted to National Marine Fisheries Service (NOAA Fisheries) on this form will be released to the requestor provided that the requestor credit the collector of the information and NOAA Fisheries. NOAA Fisheries will notify the collector that these data have been requested and the intent of their use.

Submit completed forms (within 30 days of date of investigation) to: Northeast Region Contacts – Shortnose Sturgeon Recovery Coordinator (Jessica Pruden, Jessica.Pruden@noaa.gov, 978-282-8482) or Atlantic Sturgeon Recovery Coordinator (Lynn Lankshear, Lynn.Lankshear@noaa.gov, 978-282-8473); Southeast Region Contacts- Shortnose Sturgeon Recovery Coordinator (Stephanie Bolden, Stephanie.Bolden@noaa.gov, 727-824-5312) or Atlantic Sturgeon Recovery Coordinator (Kelly Shotts, Kelly.Shotts@noaa.gov, 727-551-5603).