



LR-E14-0080

EPP 5.4.2 Appendix B

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

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
ARTICLE NUMBER: 7012 1640 0000 4257 2544

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 April 18<sup>th</sup>, 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 "LMW", written over a horizontal line.

Lawrence M. Wagner  
Plant Manager - Salem  
PSEG Nuclear LLC

Attachments (2)

IE77  
NRR

## 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 non-routine 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, non-routine 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-E14-0080  
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 Lamb, Licensing Project Manager  
U. S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852

Ms. Lynn Lankshear  
National Marine Fisheries Service  
Protected Resources Division  
Lynn.Lankshear@noaa.gov

Mr. Patrick Mulligan  
Bureau of Nuclear Engineering  
New Jersey Department of Environmental Protection  
Patrick.Mulligan@DEP.State.NJ.US

Mr. Dave Jenkins  
Endangered and Nongame Species Program  
New Jersey Department of Environmental Protection  
Dave.Jenkins@DEP.State.NJ.US

Ms. Jeanette Bowers  
Department of Fish and Wildlife  
New Jersey Department of Environmental Protection  
Jeanette.Bowers@DEP.State.NJ.US

Salem Commitment Coordinator  
Mail Code X25

USNRC Senior Resident Inspector - Salem  
Mail Code X24

### 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 11A

Date animal observed: 04/18/14 Time animal observed: 10:25am

Date animal collected: 04/18/14 Time animal collected: 10:25am

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. - 5.3°C; Sal. - ppt; wind - NE; Sky - overcast; wave - calm; tide - Flood 1 (90.6ft)

Date and time of last inspection of screen: 04/18/14 at 08:55am

Water temperature (°C) at site and time of observation: 11.1°C

Number of pumps operating at time of observation: Unit 1 6 Unit 2 0

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

Unit 1 0 Unit 2 0

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

Unit 1 0 Unit 2 0

#### Sturgeon Information:

Species Atlantic Sturgeon (Acipenser oxyrinchus)

Fork length (or total length) 590mm(FL) / 673mm(TL)

Weight 1.2kg

#### Condition of specimen/description of animal

Specimen was deceased and moderately decomposed at the time of retrieval by Salem Yard Crew. ECSI fisheries technician measured, photographed, and scanned the specimen for tags. No external tags or PIT tags were indicated. PSEG Nuclear Environmental Affairs directed that the specimen be discarded in the on-site detritus/trash receptacle upon completion of processing.

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



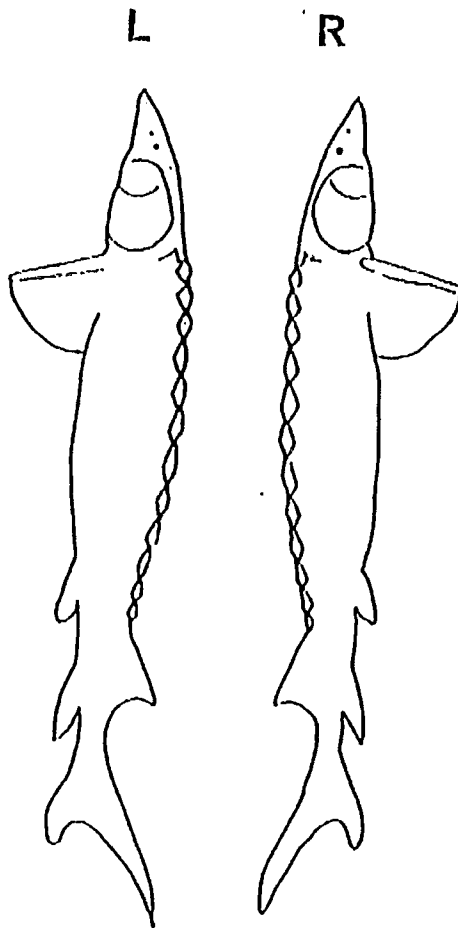
View showing the size and condition of the deceased Atlantic Sturgeon (*Acipenser oxyrinchus*), retrieved at 10:25 on 04/18/14 by Salem Yard Crew personnel during routine trash rack cleaning at the Salem CWIB. Except for the effects of moderate decomposition, the specimen did not show evidence of any significant damage (04/18/14).



This photo provides a ventral view of the specimen, and shows the extent of moderate decomposition (04/18/14).

**ATTACHMENT 1 (Sturgeon) continued**

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



**Description of fish condition:**

The specimen was deceased, and showed evidence of moderate decomposition at the time of initial observation and collection by Salem Yard Crew. Based on the condition, it appears that the specimen has been deceased for an extended period of time, indicating that the death likely occurred at some other location within the river. The State of New Jersey Division of Fish and Wildlife, and the National Marine Fisheries (NMFS) were contacted in regards to the incidental take at 10:55 and 10:57am respectively.



# 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 04 Day 18 Year 2014  
 DATE EXAMINED:  
 Month 04 Day 18 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 11A, 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 5.90 cm  
 Total length 6.73 cm  
 Length ☒ actual ☐ estimate  
 Mouth width (inside lips, see reverse side) Not measured  
 Interorbital width (see reverse side) Not measured  
 Weight ☒ actual ☐ estimate 1.20 kg

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) At the direction of PSEG Environmental Affairs, specimen was discarded in on-site trash receptacle.

## Carcass Necropsied?

☐ Yes ☒ No

Date Necropsied: \_\_\_\_\_

Necropsy Lead: \_\_\_\_\_

Photos/video taken? ☒ Yes ☐ No

Disposition of Photos/Video PSEG Nuclear Environmental Affairs

## SAMPLES COLLECTED? ☐ Yes ☒ No

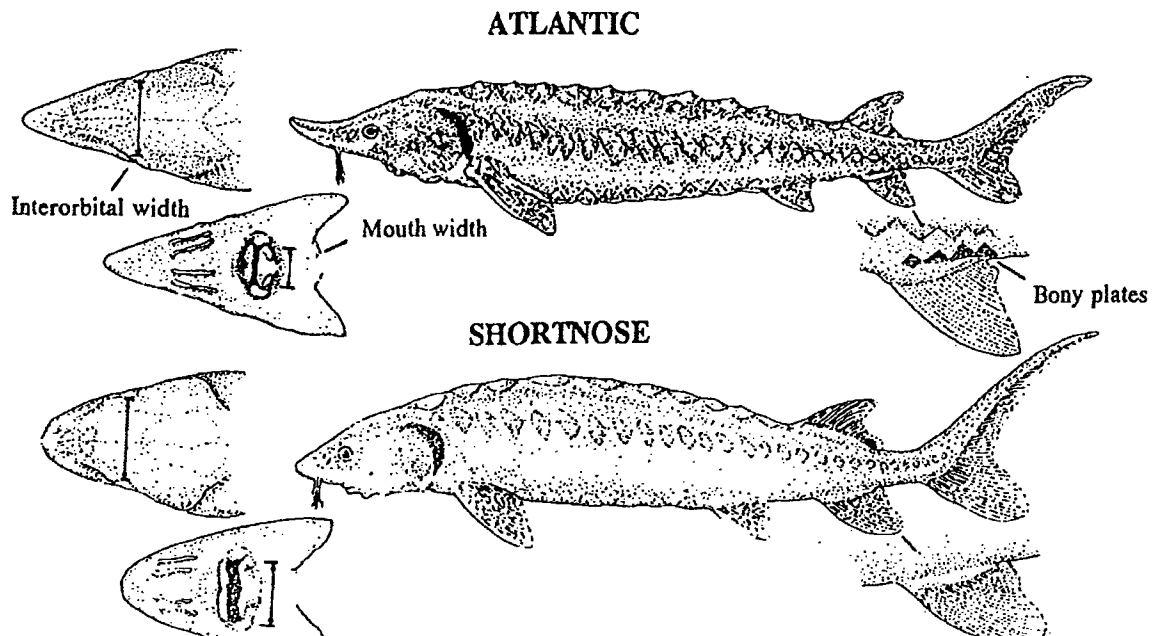
Sample How preserved Disposition (person, affiliation, use)


Comments: The deceased Atlantic sturgeon was collected from the Salem Circulating Water Intake Structure during routine trash rack cleaning on 04/18/14, as 10:25am. Positive identification was made by Environmental Consulting Services personnel at 10:30am. The specimen was measured, photographed, and inspected for tags, but none were found. The State of New Jersey DEP, Division of Fish and Wildlife, and National Marine Fisheries (NMFS) were contacted in regards to the incidental take at 10:55 and 10:57 respectively. Upon completion of processing, PSEG Nuclear Environmental Affairs directed that the specimen be discarded in on-site trash receptacle with detritus material collected during trash rack cleaning.

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, and showed evidence of moderate decomposition. Based on the condition, it appears that the specimen has been deceased for an extended period of time, indicating that the death likely occurred at some other location within the river.

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](mailto:Jessica.Pruden@noaa.gov), 978-282-8482) or Atlantic Sturgeon Recovery Coordinator (Lynn Lankshear, [Lynn.Lankshear@noaa.gov](mailto:Lynn.Lankshear@noaa.gov), 978-282-8473); Southeast Region Contacts- Shortnose Sturgeon Recovery Coordinator (Stephanie Bolden, [Stephanie.Bolden@noaa.gov](mailto:Stephanie.Bolden@noaa.gov), 727-824-5312) or Atlantic Sturgeon Recovery Coordinator (Kelly Shotts, [Kelly.Shotts@noaa.gov](mailto:Kelly.Shotts@noaa.gov), 727-551-5603).