

LR-E12-0153



Dated: **DEC 05 2012**

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U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

**REPORT OF IMPINGEMENT OF ATLANTIC STURGEON
SALEM GENERATING STATION UNIT NO. 1
DOCKET NO. 50-272**

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 discovery, and documents the occurrence and removal of an Atlantic Sturgeon from the Salem Generating Station circulating water intake structure.

Enclosed please find three (3) attachments. Attachment 1 gives a narrative description of the event, as requested by the Nuclear Regulatory Commission (NRC). Attachment 2, requested by the National Marine Fisheries Service (NMFS), provides more information regarding the observance and retrieval of the sturgeon. Attachment 3, is a National Marine Fisheries Service (NMFS) Sturgeon Salvage Form, which provides additional information regarding the observance and retrieval of the sturgeon.

There are no commitments contained in this letter.

If you have any questions or require additional information, please do not hesitate to contact Jeffrey Pantazes, Manager – Nuclear Environmental Affairs at (856) 339-7900.

Sincerely,

A handwritten signature in black ink, appearing to read "LW", written over a horizontal line.

Larry Wagner
Plant Manager - Salem
PSEG Nuclear LLC

Attachments (3)

IE23
NRC

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cc: Mr. William Dean, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

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

USNRC Senior Resident Inspector – Salem
Mail Code X24

Mr. P. Mulligan, Manager IV
Bureau of Nuclear Engineering
PO Box 420
Mail Code: 33-01
Trenton, NJ 08625-0420

Ms. Lynn Lankshear
National Marine Fisheries Service
Protected Resources Division
55 Great Republic Drive, Suite 04-400
Gloucester, MA 01930

Mr. Michael Ludwig
National Marine Fisheries Service
212 Rogers Avenue
Milford, CT 06460

Mr. Dave Jenkins
Endangered and Nongame Species Program
7A Van Sykel's Road
Hampton, NJ 08827

Salem Commitment Coordinator
Mail Code X25

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bc: Salem Site Vice President
Salem Plant Manager
Manager – Nuclear Environmental Affairs
Records Management
Director – Regulatory Affairs
Regulatory Assurance Manager – Salem

ATTACHMENT 1
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INCIDENTAL TAKE OF ATLANTIC STURGEON

OCCURRENCE DATE: November 14, 2012

FACILITY: Salem Generating Station, Unit 1
PSEG Nuclear LLC
Hancocks Bridge, NJ 08038

IDENTIFICATION OF OCCURRENCE:

An Atlantic Sturgeon (*Acipenser brevirostrum*) was removed from the Circulating Water System (CWS) Intake trash racks at the Salem Generating Station. The sturgeon was recovered on November 14, 2012. Atlantic Sturgeon is federally listed as "endangered" species under the Endangered Species Act of 1973, as amended.

CONDITIONS PRIOR TO OCCURRENCE:

November 14, 2012

Unit 1: 100 percent power

Unit 2: 0 percent power

DESCRIPTION OF OCCURRENCE:

DATE	TIME	STATUS	INTAKE BAY	FORK LENGTH (MM)	TOTAL LENGTH (MM)	WEIGHT (G)
11/14/12	1300	Deceased	Unknown	425	485	326.8

During routine cleaning of the trash racks, Maintenance personnel recovered the sturgeon, which was deceased. Environmental Consulting Services Inc. (ECSI) confirmed the identification of the sturgeon as an Atlantic Sturgeon and notified Salem Operations and Nuclear Environmental Affairs.

The sturgeon was transported to ECSI headquarters. There it was examined, measured, weighed and scanned for Passive Integrated Transponder (PIT) tags. No response was obtained when the sturgeon was scanned for PIT tags.

The U. S. Nuclear Regulatory Commission (NRC), the National Marine Fisheries Service (NMFS) and the New Jersey Department of Environmental Protection (NJDEP) were notified regarding this occurrence.

ANALYSIS OF OCCURRENCE

Between 1978 and 2008, a total of twenty-one (21) Shortnose sturgeon have been collected at the CWS intake, two in 1978, one in 1981, three in 1991, two in 1992, two in 1994, three in 1998, one in 1999, one in 2000, one in 2003, one in 2004, one in 2007, one in 2008 and two in 2011.

This is the first Atlantic Sturgeon take since it was listed as an endangered species.

CORRECTIVE ACTIONS

The trash racks are required to be inspected every two hours from June 1 through October 15, cleaned three times per week from May 1 and November 15, and as mentioned above, are required to be cleaned daily between June 1 and October 15. Observations are made specifically for sea turtles and sturgeon during this time. During the remaining months the trash racks are inspected daily for debris load and cleaned as necessary. The Atlantic Sturgeon was not recovered alive and it is unlikely that the facility caused the mortality. There were no signs of obvious damage to the specimen. PSEG believes that the measures in place are sufficient and no other actions are warranted at this time.

ATTACHMENT 2
Page 1 of 1
REPORTING REQUIREMENTS
Appendix II to Section 7 Consultation

Photographs should be taken and the information requested below should be collected in association with all protected species (sea turtles and Atlantic and Shortnose Sturgeon) impingements. This documentation should be sent to the:

National Marine Fisheries Service
Habitat Conservation Branch
One Blackburn Drive
Gloucester, MA 01930-2298

Protected Species Impingements
Salem and Hope Creek Generating Stations

Observers full name: James Lucas Carll– Environmental Consulting Services, Inc.

Reporters full name: Albert Fisher – Resource Recovery Specialist

Species identification: Atlantic Sturgeon (*Acipenser oxyrinchus*)

Site of impingement: Salem Generating Station – CWS Trash Racks

Date and time impingement was observed: 11/14/12 1300hrs

Date and time of animal was collected: 11/14/12 1300hrs

Tidal stage at time of collection: Out going tide

Date and time of last observation of screen: 11/14/12 0212 hrs

Water temperature at site at time of impingement: 10⁰ (C)

Average percent of power generating capacity achieved per unit over the 48 hours previous to impingement: Unit 1 - 100 percent power
Unit 2 - 0 percent power

Condition of animal: Deceased

Atlantic Sturgeon Measurements:

Fork Length: 425mm

Total Length: 485mm

Weight: 326.8 g

Remarks: The sturgeon was found during routine cleaning of the CWS Intake trash racks. The sturgeon was deceased at the time of capture.

ATTACHMENT 3 STURGEON SALVAGE FORM

For use in documenting dead sturgeon in the wild under ESA permit no. 1614 (version 07-20-2009)

INVESTIGATORS'S CONTACT INFORMATION
 Name: First Albert Last Fisher
 Agency Affiliation _____ Email Albert.Fisher@pseg.com
 Address P.O. Box 236 M/C H18
Hancocks Bridge NJ, 08038
 Area code/Phone number (856) 339-5014

UNIQUE IDENTIFIER (Assigned by NMFS)
 Abr090012011NJ

DATE REPORTED:
 Month 11 Day 14 Year 2012
DATE EXAMINED:
 Month Day Year 20

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) Cooling water intake at the Salem Nuclear Generating Station- Unit 1
 Latitude _____ N (Dec. Degrees) Longitude _____ 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 425 mm
 Total length 485 mm
 Length actual estimate
 Mouth width (inside lips, see reverse side) _____ cm / in
 Interorbital width (see reverse side) _____ cm / in
 Weight actual estimate 326.8 g

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
None		None

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: On file at site

SAMPLES COLLECTED? Yes No

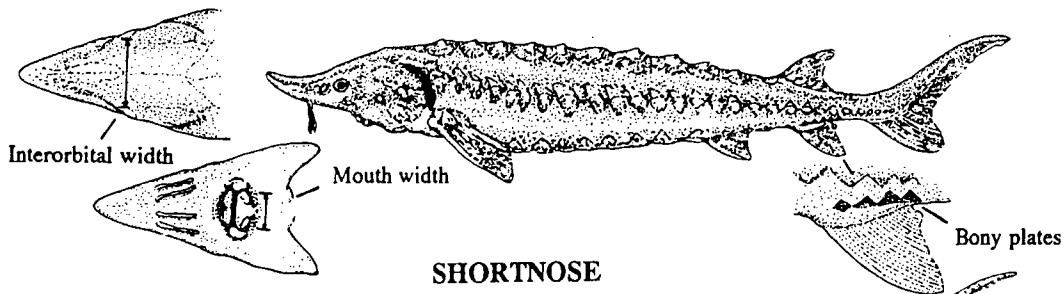
Sample	How preserved	Disposition (person, affiliation, use)

Comments: Sturgeon was shipped to NMFS in Gloucester MA (November 26, 2012).

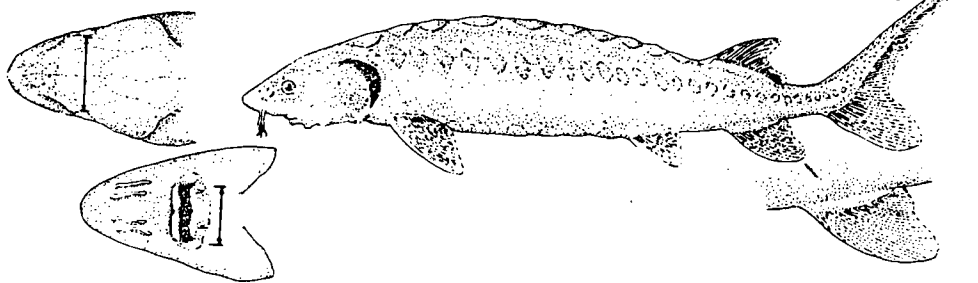
Distinguishing Characteristics of Atlantic and Shortnose Sturgeon (version 07-20-2009)

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

ATLANTIC



SHORTNOSE



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

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: Jessica Pruden, Shortnose Sturgeon Recovery Coordinator, NOAA Fisheries Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930
 Phone: 978-282-8482; Fax: 978-281-9394; E-Mail: Jessica.Pruden@noaa.gov