

LR-E11-0043



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U. S. Nuclear Regulatory Commission  
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Washington, DC 20555

Gentleman:

**REPORT OF IMPINGEMENT OF SHORTNOSE 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 a shortnose sturgeon from the Salem Generating Station circulating water intake structure.

Enclosed please find two (2) 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 specific 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 "E. Eilola".

Edwin J. Eilola  
Plant Manager - Salem  
PSEG Nuclear LLC

Attachments (2)

Handwritten initials "JEP3" and "NRC" in black ink, located in the bottom right corner of the page.

C 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  
Bureau of Nuclear Engineering  
33 Arctic Parkway  
P. O. Box 415  
Trenton, NJ 08625-0415

Ms. Carrie Upite  
National Marine Fisheries Service  
Protected Resources Division  
One Blackburn Drive  
Gloucester, MA 01930-2298

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

Salem Commitment Coordinator – H. Berrick  
Mail Code X25



The sturgeon 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) have been notified regarding this occurrence.

#### APPARENT CAUSE OF OCCURRENCES

Based on historical and recent records, shortnose sturgeon appear to utilize the entire Delaware estuary-river complex, from the river mouth to New Hope, Pennsylvania (0-238 river kilometer - rkm). Spawning occurs north of Trenton, 128 rkm upstream from the Salem and Hope Creek Generating Stations. It is unlikely that larval or post-larval fish would travel the distance downstream to the site. Adult Shortnose sturgeon may move into the surrounding area during fall migration to wintering grounds. Healthy adult and juvenile shortnose sturgeon are strong able to escape from intake velocities typically encountered at the trash bars. Sturgeon that are in a weakened (or deceased) condition may be subject to impingement.

#### ANALYSIS OF OCCURRENCE

Between 1978 and 2011, a total of twenty (20) 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 this occurrence in 2011.

#### 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. 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. Since the Shortnose sturgeon was not recovered alive and it is not likely that the facility caused the death, it is felt that the measures in place are sufficient and no other actions are warranted at this time.

SCH08-082  
ATTACHMENT 2

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 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:** Maynard McAllister, John Pugliese – PSEG Nuclear LLC, Maintenance Common

**Reporters full name:** William G Biggs – PSEG Nuclear LLC, Nuclear Environmental Affairs

**Species identification:** Shortnose Sturgeon (*Acipenser brevirostrum*)

**Site of impingement:** Salem Generating Station – CWS Trash Racks

**Date and time impingement was observed:** 03/21/11 0945hrs

**Date and time of animal was collected:** 03/21/11 0945 hrs

**Tidal stage at time of collection:** Incoming

**Date and time of last observation of screen:** 03/21/11 0800 hrs

**Water temperature at site at time of impingement:** 19.3<sup>o</sup> (C)

**Average percent of power generating capacity achieved per unit over the 48 hours previous to impingement:** Unit 1 - 100 percent power  
Unit 2 - 85 percent power

**Condition of animal:** Deceased

**Shortnose Sturgeon Measurements:**

**Fork Length:** Not Available

**Total Length:** 838 mm

**Weight:** ~6.6 kg

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