



DEC 07 2007

SCH07-139

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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.

Should you have any questions regarding this transmittal, please feel free to contact us.

Sincerely,

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

Clifton D. Gibson
Salem Radwaste & Environmental Supervisor

Attachments (2)

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NRR

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

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

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BC Salem Site Vice President
Salem Plant Manager
CFAM
J. Valeri esq.
Env. File No. 4.7.2 SGS
Records Management

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ATTACHMENT 1

INCIDENTAL TAKE OF SHORTRNOSE STURGEON

OCCURRENCE DATE: November 28, 2007

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

IDENTIFICATION OF OCCURRENCE:

A shortnose 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 28, 2007. Shortnose sturgeon are federally listed as "endangered" species under the Endangered Species Act of 1973, as amended.

CONDITIONS PRIOR TO OCCURRENCE:

November 28, 2007	Unit 1	100 percent power
	Unit 2	100 percent power

DESCRIPTION OF OCCURRENCE:

DATE	TIME	STATUS	INTAKE BAY	FORK LENGTH (MM)	TOTAL LENGTH (MM)	WEIGHT (KG)
11/28/07	0950	Deceased	12B	Not Avail.	674	Approx. 4.5

During routine cleaning of the trash racks, Site Services personnel recovered the sturgeon, which appeared to have wounds similar to the result from a boat impact. Personnel from Environmental Consulting Services responded and confirmed the identification of the sturgeon as an Atlantic Sturgeon. During examination an ID tag fell from the decaying carcass. The tag manufacturer was contacted to request identification of the tag owner. On December 5, 2007 at 14:46 the owner of the tag, ERC contacted the station indicating this fish was tagged by them in November 2002 as a female Shortnose Sturgeon (Weight ~3kg, length ~175 mm).

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 sturgeon was discarded when it was identified as an Atlantic Sturgeon on November 28, 2007.

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 enough swimmers that they should be 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 2007, a total of eighteen (18) 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 and this occurrence in 2007.

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. 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.

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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, Jerry Nazar – PSEG Nuclear LLC, Facility Services

Reporters full name: Clifton Gibson – PSEG Nuclear LLC, Salem Chemistry, Radwaste & Environmental

Species identification: Shortnose Sturgeon (*Acipenser brevirostrum*)

Site of impingement: Salem Generating Station – CWS Trash Racks

Date and time impingement was observed: 11/28/07 0950hrs

Date and time of animal was collected: 11/28/07 0950 hrs

Tidal stage at time of collection: Flood

Date and time of last observation of screen: 11/28/07 1007 hrs

Water temperature at site at time of impingement: 6.1⁰ (C)

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

Condition of animal: Deceased

Shortnose Sturgeon Measurements:

Fork Length: Not Available

Total Length: 674 mm

Weight: ~4.5 kg

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