

SEP 28 2001



LR-E01-0289

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

Gentleman:

**REPORT OF IMPINGEMENT OF SEA TURTLE  
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 hereby transmits notification of a nonroutine event discovery, and documents the occurrence and removal of a dead sea turtle 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 sea turtle.

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

Sincerely,

A handwritten signature in black ink, appearing to read "J. Eggers", written over the printed name.

James Eggers  
Environmental Licensing Supervisor

Attachments (2)

IE23

SEP 28 2001

C Mr. H. J. Miller, Administrator - Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Mr. R. Fretz, Licensing Project Manager - Salem  
U. S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Mail Stop 8B2  
Rockville, MD 20852

USNRC Senior Resident Inspector (X24)

Mr. K. Tosch, Manager IV  
Bureau of Nuclear Engineering  
33 Arctic Parkway  
P. O. Box 415  
Trenton, NJ 08625

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

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

Mr. Dave Jenkins  
Endangered and Nongame Species Program  
P. O. Box 236  
Tuckahoe, NJ 08250

Mr. Lawrence J. Niles, Chief  
New Jersey Department of Environmental Protection  
Endangered and Nongame Species Program  
P. O. Box 400  
Trenton, NJ 08625-0400

LR-E01-0289  
ATTACHMENT 1

INCIDENTAL TAKE OF SEA TURTLE

OCCURRENCE DATE: August 31, 2001

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

IDENTIFICATION OF OCCURRENCE:

A dead and decomposing sea turtle was recovered from the Circulating Water System (CWS) Intake trash racks at the Salem Generating Station. The sea turtle was recovered on August 31, 2001. The sea turtle was identified as a Loggerhead (*Caretta caretta*) and was missing the right front flipper and most of the right side. The remaining flippers were checked for tags but none were present. The sea turtle was photographed, measured, marked with a black "X" on the carapace, triple bagged and placed in the trash as per the direction from the NMFS. Loggerhead sea turtles are federally listed as "threatened" species under the Endangered Species Act of 1973, as amended.

CONDITIONS PRIOR TO OCCURRENCE:

August 31, 2001	Unit 1	100 percent power
	Unit 2	100 percent power

DESCRIPTION OF OCCURRENCE:

The dead sea turtle was recovered from trash rack 11 A of the CWS intake on August 31, 2001 at approximately 0455 hours. Operations personnel recovered the sea turtle, which was apparently dead prior to drifting into the trash rack. The sea turtle was dead and very decomposed.

The following agencies have been notified regarding this occurrence:

U.S. Nuclear Regulatory Commission (NRC)  
U.S. National Marine Fisheries Service (NMFS)  
New Jersey Department of Environmental Protection (NJDEP)  
Marine Mammal Stranding Center (MMSC)

#### APPARENT CAUSE OF OCCURRENCE:

Sea turtles are summer migrants, common to the Delaware Bay. Small numbers typically occur in the lower Delaware River near the Salem Generating Station from June through September. Healthy sea turtles are strong swimmers and are usually able to avoid the approach velocity of the CWS intake. Turtles, which are in a weakened condition due to injury by boats or commercial fishing operations, are subject to impingement. Apparently healthy turtles, which become impinged, may not be able to escape the approach velocity due to exhaustion or small size. Also large, apparently healthy turtles may be foraging in the intake channel. While feeding they may surface in the intake bays and if observed by plant personnel will be removed as if impinged, tagged, and released.

#### ANALYSIS OF OCCURRENCE:

The CWS intake is monitored for accumulation of debris throughout the year. This accumulated debris is periodically removed. Any sea turtles, which are observed in the area of the trash racks, are recovered immediately. Between 1979 and present, a total of 96 sea turtles (plus three recaptures) have been collected at or in the vicinity of the plant. Of the 92 turtles collected at the intake, sixty-six (71.7%) have been loggerhead sea turtles; twenty-four (26.1%) were Kemp's ridley sea turtles, and two (2.2%) green sea turtles.

#### CORRECTIVE ACTION:

The trash racks at Salem are cleaned at least three times per week between May 1 and November 15 and daily between June 1 and October 15. The trash racks are also inspected every two hours, twenty-four (24) hours a day between June 1 and October 15. Additionally, the ice barriers are removed from in front of the trash racks between May 4 and October 24. The specified time period

represents the peak migratory movement of sea turtles into and out of the Delaware River. Observations are made specifically for sea turtles and sturgeon during this time. During the remaining months the trash rack is inspected daily for debris load and cleaned as necessary. Any sea turtle occurrence is observed at this time. Resuscitation procedures will be attempted on all unconscious turtles. In accordance with standard procedure, a necropsy will be performed on all acceptable dead turtles and injured specimens will be held under appropriate conditions and may be turned over to the MMSC.

LR-E00-0343  
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:** Americo Rivera – PSEG Nuclear Operations

**Reporters full name:** David Hurka – PSEG Nuclear Environmental Licensing

**Species identification:** Loggerhead Sea Turtle (*Caretta caretta*)

**Site of impingement:** Salem Generating Station – CWS Intake 11A

**Date and time impingement was observed:** 08/31/00 0455 hrs

**Date and time of animal was collected:** 08/31/00 0455 hrs

**Tidal stage at time of collection:** Low Tide

**Date and time of last observation of screen:** 08/31/00 0455 hrs

**Water temperature at site at time of impingement:** 81.6<sup>0</sup> (F)

**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:** Dead

**Sea Turtle Measurements:**

**Carapace Length:** 53.3 cm SL

**Carapace Width:** 50.8 cm SL (estimated)

**Weight:** NA

**Remarks:** A dead and decomposing sea turtle was recovered from the Circulating Water System (CWS) Intake trash racks at the Salem Generating Station. The sea turtle was recovered on August 31, 2001. The sea turtle was identified as a Loggerhead (*Caretta caretta*) and was missing the right front flipper and most of the right side. The remaining flippers were checked for tags but none were present. The sea turtle was photographed, measured, marked with a black "X" on the carapace, triple bagged and placed in the trash as per the direction from the NMFS.