



Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

**AUG 11 2000**  
LR-E00-0313

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ARTICLE NUMBER: 7099 3400 0003 6394 0722

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

Gentleman:

**REPORT OF IMPINGEMENT OF SEA TURTLE  
SALEM GENERATING STATION UNIT NO. 2  
DOCKET NO. 50-311**

In accordance with Section 5.4.2 of Appendix B, Environmental Protection Plan, to the Operating License for the Salem Generating Station, Public Service Electric and Gas Company (PSE&G) 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,

  
Gabor Salamon  
Manager - Licensing

Attachments (2)

CDD

The power is in your hands.

AUG 11 2000

C Mr. H. J. Miller, Administrator - Region I  
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Rockville, MD 20852

Mr. S. Morris (X24)  
USNRC Senior Resident Inspector

Mr. K. Tosch, Manager IV  
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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

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ATTACHMENT 1

INCIDENTAL TAKE OF SEA TURTLE

OCCURRENCE DATE: July 12, 2000

FACILITY: Salem Generating Station, Unit 2  
Public Service Electric and Gas Company  
Hancocks Bridge, NJ 08038

IDENTIFICATION OF OCCURRENCE:

A dead sea turtle was removed from the Circulating Water System (CWS) Intake trash racks at the Salem Generating Station. The sea turtle was recovered on July 12, 2000. The sea turtle was severely decomposed with the front third of the animal missing and appeared to have been completely severed by a clean, diagonal cut suggestive of a propeller cut. The three remaining flippers were checked for tags and none were present. The sea turtle was identified as a Loggerhead (*Caretta caretta*). Due to the badly decomposed condition, the death of this sea turtle was clearly not related to plant operation. Loggerhead sea turtles are federally listed as "threatened" species under the Endangered Species Act of 1973, as amended.

CONDITIONS PRIOR TO OCCURRENCE:

July 12, 2000	Unit 1	100 percent power
	Unit 2	100 percent power

DESCRIPTION OF OCCURRENCE:

The dead sea turtle was recovered from trash rack 21 A of the CWS intake on July 12, 2000 at approximately 0900 hours. The turtle was seen floating during routine inspections by Operation personnel. Site Services personnel recovered the turtle using the trash rack cleaning rake. The turtle was badly decomposed, with no head, one front flipper and two rear flippers. The carapace was in several pieces.

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)

Based on the poor physical condition of the dead sea turtle, it was disposed of with regular river debris after consultation with the NMFS. A necropsy of the sea turtle was not possible.

#### 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 94 sea turtles (plus three recaptures) have been collected at or in the vicinity of the plant. Of the 90 turtles collected at the intake, sixty-four (71.1%) have been loggerhead sea turtles; twenty-four (26.7%) 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.

Due to the poor condition of the dead sea turtle, a necropsy was not possible and the turtle's remains were disposed of with regular river debris.

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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:** Kenneth McKune – PSE&G Operations  
**Reporters full name:** David Hurka – PSE&G Environmental Licensing  
**Species identification:** Loggerhead Sea Turtle (*Caretta caretta*)  
**Site of impingement:** Salem Generating Station – CWS Intake 21A  
**Date and time impingement was observed:** 07/12/00 0900 hrs  
**Date and time of animal was collected:** 07/12/00 0900 hrs  
**Tidal stage at time of collection:** Flood Tide  
**Date and time of last observation of screen:** 07/12/00 0900 hrs  
**Water temperature at site at time of impingement:** 78.4<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, severely decomposed

**Sea Turtle Measurements:**

**Carapace Length:** NA  
**Carapace Width:** NA  
**Weight:** NA

**Remarks:** The sea turtle was severely decomposed with the front third of the animal missing and appeared to have been completely severed by a clean, diagonal cut suggestive of a propeller cut. The three remaining flippers were checked for tags and none were present. The sea turtle was identified as a Loggerhead (*Caretta caretta*). Due to the badly decomposed condition, the death of this sea turtle was clearly not related to plant operation.