

Public Service
Electric and Gas
Company

Corbin A. McNeill, Jr.
Vice President -
Nuclear

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609339-4800

September 4, 1985

Dr. Thomas E. Murley, Regional Administrator
Region 1
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Dr. Murley:

SALEM GENERATING STATION
UNIT NO. 2
DOCKET NO. 50-311
REPORT OF IMPINGEMENT OF SEA TURTLES
AUGUST 5, 7 and 10, 1985

This report is being submitted pursuant to the requirements of Salem Unit 2 Environmental Technical Specifications, Sections 4.1.1. and 5.4.2.a, b and c. This report is required within thirty (30) days of discovery.

Sincerely,



Attachment

C Mr. Donald C. Fischer
Licensing Project Manager

Mr. Thomas J. Kenny
Senior Resident Inspector

Mr. Richard Delgado
New Jersey Department of Environmental Protection

SORC MEETING #85-124

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REPORT DATE: August 23, 1985
OCCURRENCE DATE: August 5, 7, and 10, 1985
FACILITY: Salem Generating Station, Units 1 and 2
Public Service Electric and Gas Company
Hancocks Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCES

Impingement of three Atlantic loggerhead (Caretta caretta) sea turtles on the Circulating Water System (CWS) intake trash bars. The Atlantic loggerhead is federally listed as a threatened species under the Endangered Species Act of 1973, as amended.

CONDITIONS PRIOR TO OCCURRENCES

August 5, 1985 - Unit 1, 100% power; Unit 2, 100% power
August 7, 1985 - Unit 1, 100% power; Unit 2, 100% power
August 10, 1985 - Unit 1, 100% power; Unit 2, 100% power

DESCRIPTION OF OCCURRENCES

On August 5, 1985, at 0805 hours, an Atlantic loggerhead turtle was found impinged on the trash bars of the CWS intake. Both Units were at full power and all circulating pumps were in operation at the time the turtle was found. The turtle was freshly dead when found. An unsuccessful attempt was made to resuscitate the animal by direct re-inflation of the lungs and pumping of the plastron. The specimen had a carapace length and width of 59.0 and 49.5 cm, respectively. Weight was estimated to be 60 pounds. In accordance with usual procedure, the turtle was removed by a representative of the Marine Mammal Stranding Center (MMSC) of Brigantine, New Jersey, for autopsy and disposal. The autopsy showed the cause of death to be suffocation.

The Senior Shift Supervisor was notified of the event by the on-duty intake operator. On August 5, the following agencies were notified:

Nuclear Regulatory Commission (Resident Inspector)

National Marine Fisheries Service

U.S. Environmental Protection Agency

N.J. Department of Environmental Protection

DE Department of Natural Resources and Environmental Control

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On August 7, 1985, at approximately 0600 hours, an Atlantic loggerhead turtle was found impinged on the CWS trash bars. Both Units were at full power and all circulators were in operation at the time the turtle was found. Based on the condition of the specimen it had been dead for at least one day. The body was swollen with gases. Carapace length was approximately 50.0 cm with a width of 40.0 cm. It was estimated that the specimen weighed 60 to 70 pounds. As with the previous loggerhead, the MMSC retrieved the turtle for autopsy and the appropriate agencies listed above were contacted that day. The autopsy showed that the turtle died from peritonitis resulting from a perforated intestine.

On August 10, 1985, at 0815, an Atlantic loggerhead turtle was recovered from the CWS trash bars. Both Units were at full power at the time the turtle was found. The turtle was alive and in good condition. Carapace length and width were 53.0 and 43.0 cm, respectively. Weight was estimated to be 30 pounds. The specimen was transported to the MMSC later that morning, where it was held for one week and released. The turtle was reported to have fed actively on blue crab and blue mussel while in captivity. The Senior Shift Supervisor and the Nuclear Regulatory Commission were notified on August 10. All other agency notifications were made on August 12, 13, and 15.

APPARENT CAUSE OF OCCURRENCE

Sea turtles are a summer migrant, common to Delaware Bay. Small numbers typically occur in the lower Delaware River near Salem during July through September. Past experience indicates that healthy sea turtles are usually able to avoid the approach velocity of the CWS intake, although occasionally one will become impinged on the trash bars. The increased number of turtles appears to be related to the increased salinity due to the present drought. The previous year of high turtle numbers was 1981, another very dry year. Other than very low flow years, it is not expected that these numbers would reoccur.

ANALYSIS OF OCCURRENCES

The CWS intake is monitored for the accumulation of debris, which is periodically removed. Any turtles which are observed impinged against the trash bars are recovered immediately. Between 1979 and present, a total of 24 sea turtles have been collected at or in the immediate vicinity of the plant. Of these, five (21%) were Atlantic ridleys and 17 (71%) were Atlantic loggerheads. Of the total turtles collected, 16 (67%) were dead when recovered.

CORRECTIVE ACTION

The trash bars are observed at least once per 8 hour shift and cleaned at least once per day. Any sea turtles observed on the trash bars are removed immediately. Resuscitation will be attempted if the turtle is not unquestionably dead. In accordance with standard procedure, all specimens will be held under appropriate conditions and turned over to the Marine Mammal Stranding Center.