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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OCT 30 1979

Docket No. 50-272

MEMORANDUM FOR: Albert Schwencer, Chief
Operating Reactors Branch 1, DOR

FROM: George Lear, Chief
Environmental Specialists Branch, DSE

SUBJECT: PRELIMINARY ASSESSMENT OF CONTINUED OPERATION AT SALEM 1
ON SHORTNOSE STURGEON

PLANT NAME: Salem Nuclear Generating Station, Unit 1
DOCKET NUMBER: 50-272
RESPONSIBLE BRANCHES: ORB-1, ESB
TAC NO.: 12359
PROJECT MANAGER: W. Ross

This memorandum briefly outlines the technical basis for a decision to allow continued operation of Salem 1 pending the conclusion of formal consultation between the National Marine Fisheries Service (NMFS) and NRC under the Endangered Species Act as amended concerning the effects of operation of Salem 1 on shortnose sturgeon in the Delaware River.

On October 29, 1979 informal consultation with NMFS was initiated. Representatives were present from EPA Region II, Delaware Division of Fish and Wildlife, New Jersey Department of Environmental Protection, Public Service Electric and Gas Company (the licensee), Ichthyological Associates (the licensee's consultant), NMFS and NRC. Also present were Mr. and Mrs. Alfred C. Coleman, Jr. and an attorney, Karin Sheldon. Mr. and Mrs. Coleman are intervenors who have petitioned the Commission to revoke the OL for Salem 1 and suspend the CPs for Salem 2 and Hope Creek 1 and 2. Our preliminary technical assessment was developed during the course of the informal consultation and is briefly outlined below.

Two specimens of shortnose sturgeon were collected at the Salem intake in 1978. One specimen was dead at the time of capture and the other was in poor physiological condition. The low water velocity at the trash bars and travelling screens, when compared to the sustained swim speeds reported for shortnose sturgeon, indicates that impingement of significant numbers of

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healthy mature fish is unlikely. In addition, based on what is known about the spawning habits of shortnose sturgeon populations in other river systems, entrainment of significant numbers of shortnose sturgeon eggs and larvae is also considered to be unlikely for several reasons: the eggs are demersal and adhesive; the larval and juvenile fish are closely associated with the substrate on the bottom; spawning takes place many miles upstream from the plant's location; and the young fish are not believed to move great distances from the spawning area. Thus, a combination of factors leads us to the preliminary conclusion that the operation of Salem 1 will not jeopardize the continued existence of the shortnose sturgeon in the Delaware River during the time required to conduct formal consultation and prepare an environmental impact appraisal.

We will request formal consultation in the very near future. We will also provide the technical information for response to the Coleman's petition to the Commission. In the meantime, however, we feel there is adequate preliminary information available to support a technical justification for allowing the Salem 1 license amendment to be issued at this time.



George Lear, Chief
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