

State of Florida

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

MEMORANDUM

TO: Mr. Mickey Bryant, NPDES Administrator

THROUGH: Dr. G. J. Thabaraj, Chief, Bureau of Water Analysis
Dr. Landon T. Ross, Chief Biologist

FROM: Lawrence A. Olsen, Environmental Specialist

DATE: July 21, 1978

SUBJECT: Comprehensive - Power Plants - Evaluation of Gulf Power
Company Scholz Plant 316(b) demonstration

As you requested in your memo of 7 July, 1978, I have reviewed the document entitled "A 316(b) Demonstration for the Scholz Electrical Generating Center, Sneads, Florida." The 316(b) demonstration, as you know, requires the applicant to minimize the environmental impact of intake structures. Generally, this refers to impingement and entrainment and the applicant usually submits sample data from the site along with historical data and life history data. In the present case, the document presents no data on impingement or entrainment. All of the evidence presented regarding the fauna is indirect. In short, it is a literature review, with implications and theoretical predictions for the Scholz site based upon intake flow rates and river flow rates. However, I called the EPA lab at Athens, and apparently the original study plan did not call for anything extensive because of the expected minimal problem at the site.

The 80 MW plant, operating at capacity, pulls in 191.54 cfs (123.8 MGD) of water from the Apalachicola River; this is approximately 2.1% of the river volume at extreme daily low flow, or 1.7% of the 60 day average low flow. The report concentrates on the four species of anadromous fish which inhabit the river, all four of which are thought to spawn at the foot of the Jim Woodruff Dam, 3.6 miles north of the Scholz plant. Two of the fish, the Alabama shad and the skipjack herring, are abundant, but there is no known fishery for them. The third, the striped bass, is subject to a sport fishery and most are caught in the vicinity of the dam. A few years ago, the U.S. Fish and Wildlife Service gave up a stocking program because it could not determine if indeed the bass were spawning in the river. The fourth fish, the southern sea sturgeon, is present in small numbers, has adhesive, demersal eggs and is protected by law. The report does not address other fish in the area, such as sunfish, bass and catfish, because, the authors maintain, these fish spawn in quiet waters and their larvae are assumed to remain in those waters. Hence, entrainment would not be a problem for them because the water flows swiftly past the scholz plant.

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The authors conclude that, even if the striped bass are spawning upriver, the most the plant could do is to entrain about 2% of the eggs and larvae. They maintain that this would be hardly enough to worry about. This conclusion is based on the assumption of homogeneous distribution of eggs and larvae of all of the species involved. This assumption may or may not be valid. Without any field data, one just doesn't know. However, I'm inclined to agree that an 80 MW plant which takes in at most only 1 - 2% of the water flowing past, is not going to have a significant impact on the biota, particularly in this non-estuarine area. The only direct evidence appears to be in the area of impingement. Though no sampling program was undertaken and no data are presented, the authors do mention that intake screens are cleaned only infrequently at the plant because they do not clog up with debris or fish.

In conclusion, I doubt that this plant is having an impact which could be classed as "substantial damage" under 17-3.05. There are virtually no fish impinged and the volumes of water involved would seem to minimize any entrainment problem.

LOA:ds

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INTEROFFICE MEMORANDUM

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M E M O

TO: Larry Olsen

FROM: Mickey Bryant *MB*

DATE: July 7, 1978

SUBJECT: 316 B Study Demonstration
Gulf Power Company
Scholz Steam Plant FL0002283

Attached please find a copy of the above referenced study. The EPA had requested our comments on this by June 21, 1978. Since I only recently located the study, I would appreciate your comments as soon as possible. Please return the study document along with your comments.

On another similar matter, I have been requested to provide the department's current position on Big Bend Plant 316 Demonstration Study subsequent to the May 15, 1978 meeting you attended. Please let me know if you have any further comments on this subject.

MB:sp
Attachment