



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
Nebraska Field Office  
203 West Second Street  
Grand Island, Nebraska 68801

January 13, 2003

Mr. Pao-Tsin Kuo  
Program Director  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Kuo:

This responds to your December 9, 2002 (received December 16, 2002), letter requesting comments from the U.S. Fish and Wildlife Service (Service) on a Biological Assessment (Assessment) of the Potential Impacts to Threatened and Endangered Species Resulting from an Additional 20 Years of Operation of the Fort Calhoun Station (FCS), Unit 1, Nuclear Power Plant (TAC No. MB3402), located in Washington County, Nebraska. The Assessment determined that the proposed action is not likely to adversely affect the federally listed endangered pallid sturgeon or the threatened bald eagle. In addition, the Assessment stated that the proposed action would have no effect on the federally listed threatened western prairie fringed orchid and piping plover, or the endangered least tern. The December 9 letter requested concurrence from the Service.

After reviewing the Assessment, the Service has concluded that additional information is required before an evaluation can be completed to determine whether the Service will be able to concur with a not likely to adversely affect determination for the pallid sturgeon. The Service is concerned about the impact of heated water, which is released from the facility, on the pallid sturgeon. In the spring, increasing water temperatures are a spawning cue for the pallid sturgeon. Depending on the degree of increase in water temperature, and the distance downstream it can be detected, operation of the facility may or may not disrupt pallid sturgeon reproduction in the Missouri River. Therefore, the Service requests that the U.S. Nuclear Regulatory Commission (Commission) provide the following information:

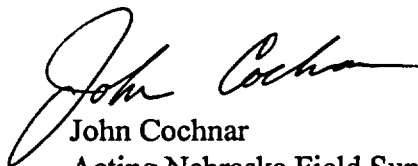
- 1) How warm is the released water after it is discharged from FCS?

- 2) How far downstream does the released water travel before being fully mixed with the Missouri River water during the May - July time period? Does this distance vary under high and low flow conditions, and if so what is the variation?
- 3) How much does the warm water plume warm the Missouri River in total after mixing? Does the amount of warming vary under high and low flow conditions?
- 4) During the pallid sturgeon spawning period (May - July), how far downstream (under high and low flow conditions) is a temperature change detectable? Is it detectable at the mouth of the Platte River?

Although no pallid sturgeon spawning has been documented in the Missouri River between FCS and Gavins Point Dam, there does appear to be potential spawning habitat between Gavins Point Dam and Ponca State Park. If spawning does occur in this river reach, pallid sturgeon larvae may drift as far downstream as FCS and be susceptible to impingement and entrainment. According to the Assessment, the larval monitoring studies at FCS ended in 1977. Since the current operating license for FCS does not expire until 2013, the Service requests that the larval monitoring studies be reinitiated to verify that pallid sturgeon larvae are not being adversely affected by FCS operations. The Service would be happy to work with the Commission to develop a larval monitoring study.

If you or members of your staff have any questions regarding this matter, please contact Mr. Wally Jobman within our office at (308)382-6468, extension 16.

Sincerely,



John Cochran  
Acting Nebraska Field Supervisor

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