

June 18, 2003

Mr. John P. Wolflin, Supervisor
U.S. Fish and Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401

SUBJECT: RESPONSE TO RECOMMENDATIONS MADE IN FEBRUARY 24, 2003,
LETTER CONCERNING SURRY POWER STATION, UNITS 1 AND 2
(TAC NOS. MB1992 AND MB1993)

Dear Mr. Wolflin:

The U.S. Nuclear Regulatory Commission (NRC) staff has received your letter dated February 24, 2003, that included an attached letter dated February 13, 2003, which was sent to Mr. A. Kugler of the NRC on the subject of NUREG-1437, Final Supplement 6 to the "Generic Environment Impact Statement Regarding Surry Power Station, Units 1 and 2 (SEIS)." The staff appreciates the Service's interest in providing comments on the Final SEIS for license renewal. In your correspondence you conclude that operation of the Surry Power Station, Units 1 and 2 (Surry) is not likely to have an adverse affect on natural resources in the area. You also make two recommendations. Your letter of February 24, 2003, recommends that any replacement screens to the Surry Ristroph traveling screen system should have a mesh size of 1 mm or less. The second recommendation dealt with bald eagles in the vicinity of the Surry site.

The NRC staff is aware of the source of the recommended 1 mm mesh size for water intake systems in Virginia. It is based on a report for the Virginia Department of Game and Inland Fisheries (VDGIF) prepared by C. Gowan, G. Garman, and W. Shuart, dated April 1999. This preliminary study was based on a review of the literature and contains no empirical data related to Virginia fishes. The 1 mm mesh size is an extrapolated value based on some work done in 1981 where no mesh size smaller than 4 mm was utilized and no fish smaller than 25 mm tested. The 1 mm value is derived based solely on calculations presumed to physically exclude certain sized organisms. The NRC staff has serious concerns about making a recommendation to use such a small mesh size based on such limited data. For example, organisms that now pass through the 3/16 in. x 1/2 in. screens and experience some mortality due to elevated temperatures and mechanical damage may experience greater mortality rates if they become impinged on the much finer mesh screens. The higher mortality rates may in fact be more detrimental to the James River fish populations. Gowan, et al. (1999) focused only on the mechanics of physically screening out organisms of a certain size, not the impact of a particular mesh size on the population dynamics of target species. There are also practical concerns such as debris loading, and whether or not the current screen house would be able to obtain enough water to continue to safely operate the nuclear power plant through the reduced mesh size screens. The debris loading on the intake screens could be so severe that it may threaten the integrity of the intake screen system.

Based on the staff's analysis presented in the November 2002 SEIS, the staff concluded that potential impacts of the cooling-water intake system's entrainment of fish and shellfish are small and further mitigation is not warranted. The licensee conducted a 316(b) demonstration under the provisions of the Clean Water Act that was submitted to the Commonwealth of Virginia on November 1, 1980. The 316(b) demonstration, which made the determination that the Surry intake structure reflected the best technology available for minimizing adverse environmental impact, resulted in the issuance of a Virginia Pollutant Discharge Elimination System permit. Several months ago the NRC staff talked with Dr. Oula Shehab, in the Commonwealth of Virginia's Department of Environmental Quality, the organization responsible for the issuance of the discharge permit, about your concerns over the current (3/16 in. x 1/2 in.) screen mesh size at the Surry power plant. Dr. Shehab did not express any concern over the adequacy of the current intake screening mesh size.

For the above reasons, the NRC staff does not plan to make a recommendation to Dominion Power, the licensee of the Surry plant, that replacement traveling screens utilize a 1 mm mesh unless it can be demonstrated that continued plant operation is having a significant impact on the James River fishery, that the reduced mesh size would mitigate the impact, and the use of a 1 mm mesh size at the facility is technologically feasible. Notwithstanding our final conclusions, the NRC staff appreciates your interest and input on this issue.

Your second recommendation dealt with bald eagles in the vicinity of the site. You recommended that annual monitoring of bald eagle activity occur at the facility and that the VDGIF and the U.S. Fish and Wildlife Services (USFWS) be notified if eagle nests occur within 400 meters (1,320 feet) of the plant facility. The NRC staff confirmed with the licensee that an annual eagle survey is conducted in the Hog Island area by the VDGIF. The survey includes the Hog Island Wildlife Management Area and the licensee's Surry site. Licensee biologists frequently accompany the Commonwealth of Virginia staff and assist in the annual survey. The licensee has committed to following the Bald Eagle Protection Guidelines for Virginia including compliance with the guidelines for activity in the vicinity of eagle nesting sites. The guidelines state that within the 400 meter (1320 foot) radius "most [human] activities should be restricted during the breeding/nesting season, and allowable activities should be determined by VDGIF/USFWS on a case-by-case basis". The NRC staff believes this is responsive to your recommendation.

J. Wolflin

3

Again, the NRC staff would like to thank the USFWS for their participation in the Surry license renewal review. On March 20, 2003, the NRC issued the renewed licenses for both Surry Units 1 and 2. If you have any further comments on the above two issues, please contact Dr. Michael Masnik at 301-415-1191 or MTM2@NRC.GOV.

Sincerely,
/RA/

Pao-Tsin Kuo, Program Director
License Renewal and Environmental Impacts Program
Division of Regulatory Improvements Programs
Office of Nuclear Reactor Regulation

Docket Nos.: 50-280 and 50-281

J. Wolflin

3

Again, the NRC staff would like to thank the USFWS for their participation in the Surry license renewal review. On March 20, 2003, the NRC issued the renewed licenses for both Surry Units 1 and 2. If you have any further comments on the above two issues, please contact Dr. Michael Masnik at 301-415-1191 or MTM2@NRC.GOV.

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