

Southern Nuclear  
Operating Company, Inc.  
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Tel 205.992.5000



*Energy to Serve Your World<sup>SM</sup>*

LR-04-0070

January 16, 2004

Mr. Larry Goldman  
Field Supervisor  
Daphne (AL) Field Office  
U.S. Fish & Wildlife Service  
1208-B Main Street  
P.O. Drawer 1190  
Daphne, AL 36526

Re: Joseph M. Farley Nuclear Plant License Renewal  
Response to requests for information from USFWS July 9, 2002 letter.

Dear Mr. Goldman:

As part of the NRC review process, SNC is formally responding to the requests that your organization identified in your July 9, 2002 letter. The information provided formally by this letter has been previously provided and discussed with Mr. Bill Young of your staff. Accompanying this letter is a copy of documents (on CD) referenced in the following response.

SNC does not have any plans to alter current plant operations over the license renewal period. Any maintenance activities necessary to support license renewal would be limited to previously disturbed areas. No expansion of existing facilities planned, and no additional land disturbance is anticipated in support of license renewal. As a consequence, SNC believes that operation of FNP, including maintenance of transmission lines by Alabama Power Company over the license renewal period (an additional 20 years), would not adversely affect any threatened or endangered species.

SNC is requesting your concurrence that extending the operating license for Joseph M. Farley Nuclear Plant would not adversely affect any threatened and endangered species. We would appreciate you providing us with a response to this letter by February 16, 2004. We will forward a copy of your response to the NRC for consideration during their environmental review.

Please do not hesitate to call Mr. Jim Davis at (205) 992-7692 if you have any questions or require any additional information.

Sincerely,

A handwritten signature in cursive script that reads "C. R. Pierce".

C. R. Pierce  
License Renewal Services Manager

Enclosure:

cc: L. M. Stinson  
C. D. Collins  
J. S. Cushing (NRC) w/CD  
M. J. Ajluni  
W. C. Carr  
T. C. Moorer w/CD  
J. T. Davis w/CD  
LR File No: R.01.01  
Document Storage w/CD

## SNC RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION

1. We would like a copy of the existing Joseph M. Farley Nuclear Plant NPDES permit for our review.

### Response to item 1

Provided on the CD accompanying this letter is a copy of the Farley Nuclear Plant (FNP) License Renewal Application Environmental Report (ER). A copy of the current NPDES permit can be found under Attachment B to the ER.

2. We would like to review available data for the past two years (or for the most recent two year period) on the water temperature of in-stream flow of the river immediately below the point of discharge, as well as that immediately downstream and upstream of the point of discharge.

### Response to item 2

FNP does not monitor water temperature of in-stream flow of the river immediately below the point of discharge or upstream or downstream of discharge. Provided on the CD accompanying this letter is a copy of a thermal study conducted in February 1991 that evaluated the thermal mixing zone in the Chattahoochee River related to the Farley Nuclear Plant main combined facility discharge.

3. We would like to receive information collected on the effects of the thermal discharge on fish and other aquatic biota.

### Response to item 3

Provided on the CD accompanying this letter is a copy of a thermal study conducted in February 1991 that evaluated the thermal mixing zone in the Chattahoochee River related to the Farley Nuclear Plant main combined facility discharge that concludes that there would be no adverse impacts on fish and other aquatic biota. In addition FNP was not required to evaluate heat shock in the application ER to the NRC because FNP design utilizes cooling towers. The NRC evaluated this type of design in NUREG 1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, in Section 4.3 and determined that the impacts to water quality and aquatic ecology "are considered to be impacts of small significance." Selected sections of NUREG 1437, including Section 4.3, are included on the CD accompanying this letter for your review. The original Final Environmental Statement for FNP provides analysis for thermal plume discharge and is included on the CD accompanying this letter.

## SNC RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION

4. **We would like to receive any dissolved oxygen data that has been collected on the Chattahoochee River both upstream and down stream of the point of discharge of the facility by the Southern Nuclear Operating Company, Inc. and/or consultants.**

### Response to item 4

Neither Southern Nuclear Operating Company, Inc. (SNC) and/or consultants have collected any dissolved oxygen data upstream or downstream of the point of discharge for Farley Nuclear Plant.

5. **Please provide us with a copy of monthly operating reports on radioactive releases and contamination, including that of fish tissue sampling and analyses that were submitted to the Nuclear Regulatory Commission over the last two years or the most recent of such data.**

### Response to item 5

Provided on the CD accompanying this letter is a copy of the 2000, 2001 and 2002 Annual Radiological Environmental Operating Reports and the 2001 and 2002 Annual Radiological Effluent Release Reports. These reports contain information on the radioactive releases and also contain the results of fish tissue sampling.

6. **Please list all radioactive pollutants, toxics and caustics discharged to the Chattahoochee River or to waste holding ponds.**

### Response to item 6

The NPDES permit identifies the non-radiological FNP discharged pollutants and their associated limits. In addition the thermal discharge study also discusses the pollutants discharged to the Chattahoochee River and concluded that there would be no adverse environmental impact to aquatic organisms in the Chattahoochee River. The Annual Radiological Environmental Operating Reports and Annual Radiological Effluent Release Reports contain information on the radioactive releases to the environment.

7. **Are biocides to be used in the operation? If so, how will those biocides be contained and prevented from being discharged into the Chattahoochee River?**

### Response to item 7

Biocides are used in the operation of FNP and those discharged into the Chattahoochee are controlled within the limits specified in the NPDES permit. As discussed above the impact of the pollutants on the Chattahoochee River environment has been evaluated and no adverse environmental impacts have been identified.

## SNC RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION

8. Has there been any water quality sampling and monitoring (physical, chemical and biological) done on the Chattahoochee River by the Southern Nuclear Operating Company, Inc.? If so we would like a copy of such information generated over the last three years for our review.

### Response to item 8

SNC does not perform non-radiological water quality sampling and monitoring on the Chattahoochee River. However, samples upstream and downstream of the discharge are taken and analyzed for radioactive contaminants. The results of this analysis are contained in the Annual Radiological Environmental Operating Reports.

9. What is the 7Q10 and average monthly discharge rates (cfs) at the point of intake or withdrawal (withdrawal for cooling water) and discharge intake point? We ask that you calculate them from actual in-stream flow data rather than using runoff coefficients. Please provide us with the calculations used. If the Southern Nuclear Operating Company, Inc. has in-stream flow data (upstream or downstream), we ask that you submit it for our review. How would plant impacts be affected by implementation of the proposed water allocation formula for the Apalachicola, Chattahoochee, Flint River Basins currently being considered by the states of Alabama, Florida, and Georgia?

### Response to item 9

The 2050 cfs 7Q10 value used for Farley Nuclear Plant flow based calculations is determined from stream flow data taken at USGS Gage 02343801 (Chattahoochee River at Columbia, AL). SNC has also provided USGS flow data for USGS Gage 02343801 on the accompanying CD that includes historical data for your review. USGS Gage 02343801 is the closest gage to FNP and is located below George W. Andrews Lock and Dam.

SNC is monitoring the progress of proposed water allocation formula for the Apalachicola, Chattahoochee, Flint River Basins currently being considered by the States of Alabama, Florida and Georgia. Impacts will be evaluated when this becomes finalized. SNC does not anticipate any impact to FNP as a result of what is being currently proposed. However, SNC will continue to monitor developments as they progress.

## SNC RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION

10. What are the average and maximum discharge rates (cfs) for thermal discharge into the Chattahoochee River? We would like a copy of the discharge flow data generated over the last two years.

### Response to item 10

The FNP ER in Section 4.1 documented the discharge rate of 57,844 gpm (129 cfs) to the Chattahoochee River for a period of 5 years (1996 – 2000). In addition, SNC has included on the CD copies of the Farley Nuclear Plant Annual Water Use Reports for 2000, 2001 and 2002.

11. For any water withdrawals, we recommend suitable screening be provided over the intake structure to minimize entrainment/impingement of fish during water diversion. Please present the design specifications for any existing screening designs for the present intake structure. The velocity through the screen should not exceed one foot per second (fps).

### Response to item 11

ER Section 3.1.2.1 provides a description of the intake structure design, screen size and flow rate through the screen. The velocity through the screen is less than 0.5 fps.

12. Please provide us with maps (USGS quadrangle level of detail) showing the layout of transmission lines.

### Response to item 12

Provided on the CD accompanying this letter is the USGS maps of our transmission lines. ER Section 3.1.3 describes the Transmission Facilities and Figure 3-1 and 3-2 provide a map of the transmission corridors from FNP to the first substations.

13. Will there be any refurbishments made of the facility and system? If so please provide details of those plans.

### Response to item 13

There are no planned refurbishments of the facility or systems directly due to license renewal for Farley Nuclear Plant.

## SNC RESPONSE TO REQUESTS FOR ADDITIONAL INFORMATION

### Contents of accompanying CD

1. Farley Nuclear Plant License Renewal Environmental Report
2. FNP NPDES permit
3. 1991 FNP Thermal Study
4. Selected Sections of NUREG 1437 Generic Environmental Impact Statement for License Renewal of Nuclear Plants
5. 2000, 2001, & 2002 FNP Annual Radiological Environmental Operating Reports
6. 2001, & 2002 FNP Annual Radiological Effluent Release Reports
7. USGS Gage 02343801 Flow Data Report
8. 2000, 2001, & 2002 FNP Annual Water Use Reports
9. USGS Topographical Maps of FNP Transmission Lines
10. Final Environmental Statement related to operation of Joseph M. Farley Nuclear Plant Units 1 And 2, December 1974