



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 17, 1997

50-321/366

Mr. H. L. Sumner, Jr.
Vice President
Southern Nuclear Operating
Company, Inc.
P. O. Box 1295
Birmingham, Alabama 35201-1295

SUBJECT: SAFETY EVALUATION RELATED TO NRC BULLETIN 96-03 "POTENTIAL PLUGGING OF EMERGENCY CORE COOLING SUCTION STRAINERS BY DEBRIS IN BOILING-WATER REACTORS" - EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2 (TAC NOS. M96148 AND M96149)

Dear Mr. Sumner:

By letters dated August 30 and October 1, 1996, you responded to NRC Bulletin 96-03 regarding the above subject. In addition, your letter of March 25, 1997, provided a detailed description of your proposed resolution approach, and requested NRC staff's approval of your proposed criteria for sizing the strainers for the emergency core cooling system (ECCS) at Hatch Unit 1 only. By letter dated May 15, 1997, the staff requested additional information concerning debris generation, strainer configuration, and credit for containment pressure. Your letter dated May 28, 1997, provided responses to the staff's request for additional information. The March 25, 1997, letter also indicated that you will provide a separate submittal for Hatch Unit 2.

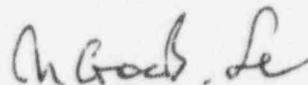
The staff, with the assistance of our contractor Science and Engineering Associates, Inc. (SEA), has completed the review of your submittals, and, based on this review, concludes that the proposed criteria for sizing the ECCS strainers for Hatch Unit 1 are adequate to meet the intent of NRC Bulletin 96-03. SEA's findings are documented in a Technical Evaluation Report (TER) which is attached to the enclosed staff's safety evaluation (SE). The staff's SE agrees with SEA's findings as documented in the TER. The SE provides our assessment of your criteria for sizing the new suction strainers for the low-pressure coolant injection and the low-pressure core spray systems. However, to date, you have not provided sufficient information to allow the staff to determine the adequacy of the strainer design to handle the calculated debris loadings, because the strainer design has not been finalized by your contractor. Therefore, the information relative to the final dimensions of the strainer, the headloss across the new strainer with the calculated debris loadings (and the basis for the headloss determination), and the resultant net positive suction head margin with the new strainers installed has not been reviewed. The staff requests that this information should be provided in a separate submittal when it becomes available.

In addition, you indicated in a telephone conference with the staff (R. Elliot and A. D'Angelo) and J. Branum, Southern Nuclear, on June 2, 1997, that you were evaluating taking credit for the fact that the strainer is not a solid object in the calculations for determining the hydrodynamic loads on the strainer. This results in a change in how you calculate the drag force on the

strainer. However, you have not yet performed the 10 CFR 50.59 evaluation of this methodology change. If you determine that the hydrodynamic load methodology needs to be revised and that it constitutes an unreviewed safety question, then you should submit your assessment as soon as possible with due consideration of the time that would be needed for staff review and the short lead time prior to the fall of 1997 refueling outage. The submittals that were reviewed did not provide any discussion on how you intend to evaluate the hydrodynamic loads on the strainer. The staff has, therefore, made no evaluation in this area.

During the recent Hatch Unit 2 refueling outage, completed in April 1997, the torus was cleaned. This cleaning improved the operability of the existing suction strainers for the emergency core cooling system. Therefore, the staff finds that your proposal to install the strainers at Hatch Unit 2 during the refueling outage in the fall of 1998 is acceptable. If you have any questions regarding this matter, please contact me at (301) 415-1458.

Sincerely,



Ngoc B. Le, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosure: Safety Evaluation

cc w/encl: See next page

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Sincerely,

(Original Signd By)

Ngoc B. Le, Project Manager
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Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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