

November 14, 2006

Mr. L. M. Stinson  
Vice President - Nuclear  
Hatch Project  
Southern Nuclear Operating  
Company, Inc.  
Post Office Box 1295  
Birmingham, AL 35201-1295

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2, REQUEST FOR  
ADDITIONAL INFORMATION FOR ALTERNATE SOURCE TERM REVIEW  
(TAC NOS. MD2934 AND MD2935)

Dear Mr. Stinson:

By letter dated August 29, 2006, the Southern Nuclear Operating Company, Inc., submitted a license amendment request that is based, in part, on an alternative source term for the Edwin I. Hatch Nuclear plant. The Nuclear Regulatory Commission staff has performed a preliminary review of the portion of the application dealing with post-loss-of-coolant accident pH control of the suppression pool water and find that additional information is needed as stated in the Enclosure.

Please contact me if you have any questions regarding this correspondence.

Sincerely,

**/RA/**

Robert E. Martin, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION  
EDWIN I. HATCH NUCLEAR PLANT, UNIT NOS. 1 AND 2  
TAC NOS. MD2934 AND MD2935

1. In the submittal from Southern Nuclear Operating Company, Inc. (SNC), dated August 29, 2006, it is stated that the calculation methodology for suppression pool pH control is based on the approach outlined in NUREG-1465, "Accident Source Terms for Light-Water Nuclear Power Plants," and NUREG/CR-5950, "Iodine Evolution and pH Control." Because pH values lower than 7 cause formation of elemental iodine ( $I_2$ ) in irradiated water pools, pH has to be maintained above that value. Describe how the procedures, described in NUREG/CR-5950, are applied for controlling the pH of the suppression pool water.
2. Describe your methodology for calculating strong acids (hydrochloric and nitric) generated in the post-LOCA radiation field existing in the containment.
3. Describe how the methodology in NUREG/CR-5950 is applied for determining buffering action of sodium pentaborate.
4. It is stated in Section 2.2.2 of the August 29, 2006, submittal that the pH of the suppression pool water is calculated using the STARpH code. Please provide the input and output data to the STARpH code, which will allow us to verify that the pH is at or above 7 for the 30-day post-accident period.

Enclosure

Edwin I. Hatch Nuclear Plant, Unit Nos. 1 & 2

cc:

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