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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Edwin I. Hatch Nuclear Plant
Request for Additional Information on
Extended Power Uprate License Amendment Request

Gentlemen:

In the original extended power uprate submittal dated August 8, 1997, Southern Nuclear Operating Company (SNC) provided the results of an assessment of the Plant Hatch probability risk assessment (PRA) considering the impact of extended power uprate. The change in core damage frequency (CDF) provided is the result of a bounding assessment which determined the impact of the higher power level on CDF. The results of the assessment indicated the potential changes in CDF as a result of extended power uprate were due to the change in operator response time required in a failure to depressurize with a loss of high pressure injection (non ATWS). It should be noted, the original individual plant examination (IPE) PRA operator response times were based on calculations using input data from the Plant Hatch simulator.

In response to a Nuclear Regulatory Commission (NRC) request for additional information, the SNC submittal of May 6, 1998 provided the difference in operator response times for specific operator actions. The operator response times in the original PRA assessment were established from simulator data, and the extended power uprate assessment response times were calculated using Modular Accident Analysis Program (MAAP) analyses. Since the operator response times were calculated using different methods, the change in available time cannot be derived by taking the difference in the response times provided.

Subsequent to the initial extended power uprate submittal and the responses to the associated requests for additional information, analyses were performed utilizing similar methodologies. Specifically, the impact of the extended power uprate on the time available to the operator to depressurize the reactor under a non-ATWS condition (operator action DE4) and the related affect on the operator failure probability was evaluated using MAAP analyses.

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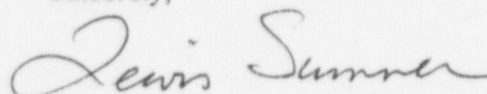
In the original bounding case evaluation for DE4, the operator failure probability was postulated to have increased by a factor of two. This assumption conservatively accounts for any possible loss of operator response time at the higher power conditions. To establish a common basis for evaluating the change in time available to the operators, additional MAAP analyses were performed at original power (2436 MW_t) and extended power uprate (2763 MW_t) conditions. The MAAP modeling assumptions are consistent between the two cases except for power level and physical plant changes due to the increased power level. The results are tabulated as follows:

| Power Level | Time to water level of -101" (minutes) | Operator time to initiate depressurization (minutes) | Time to water level of -200" (minutes) |
|----------------------|--|--|--|
| 2436 MW _t | 1.0 | 1.1 | 2.1 |
| 2763 MW _t | 0.9 | 1.2 | 2.1 |

As shown above, the results of the MAAP analyses demonstrate the change in operator response time, when evaluated utilizing similar methodologies, is insignificant. Therefore, the results of the bounding case evaluation provided in the August 8, 1997 submittal are considered conservative.

Should you have any questions in this regard, please contact this office.

Sincerely,



H. L. Sumner, Jr.

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cc: See next page

U.S. Nuclear Regulatory Commission
September 11, 1998

Page 3

cc: Southern Nuclear Operating Company
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SNC Document Management (R-Type A02.001)

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U.S. Nuclear Regulatory Commission, Region II
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