

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526-6526

Mailing Address:
Post Office Box 4545
Atlanta, Georgia 30302

L. T. Gucwa
Manager Nuclear Engineering
and Chief Nuclear Engineer



the southern electric system

NED-85-520
1876N

August 22, 1985

Director of Nuclear Reactor Regulation
Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKET 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
CORE SPRAY SPARGER CRACKING

Gentlemen:

Pursuant to the requirements of I&E Bulletin 80-13, "Cracking in Core Spray Spargers", and NRC letter to Georgia Power Company (GPC) dated February 14, 1985 regarding the same subject for Edwin I. Hatch Nuclear Plant, Unit 1, GPC submits herein the justification for continued operation of Unit 1 for an unlimited number of cycles with one or more cracked core spray spargers.

During the fall 1984 refueling outage, visual inspection revealed the presence of a crack on the lower sparger arm near the 350° T-box. The circumferential crack is located in the heat-affected zone of the sparger to T-box weld, approximately 1/8 inch from the weld. It spans at least 180° of pipe circumference and is a maximum of 0.010 inch wide.

General Electric Company report, NEDO-30825, "Core Spray Sparger Crack Analysis for Edwin I. Hatch Nuclear Power Station Unit 1" provides justification for continued safe operation with the crack. The analysis demonstrates that even if a 360° circumferential through-wall crack is postulated, the sparger would remain intact, no safety concern would be created by loose parts, and the cooling function of the core spray system would not be degraded. It was therefore concluded that the analysis is applicable to and conservative for all subsequent reloads (pg. 4-5/4-6).

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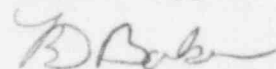
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During the refueling outage currently scheduled to begin by November 30, 1985, GPC will reinspect the core spray spargers as specified in I&E Bulletin 80-13, including the weld area where the crack was previously identified. In addition, as required by your Safety Evaluation Report dated February 14, 1985, GPC will evaluate the effectiveness of the clamping device which was applied to the cracked sparger. Results of these evaluations will be communicated to your office.

However, based upon the analysis described in NEDO-30825 and the nature of the conclusions in that report, i.e., "the relevant phenomena do not depend on the distribution of the injected spray through the nozzles but on the injection of coolant into the upper plenum" (pg. 4-3), GPC respectfully requests that your office re-issue the Safety Evaluation Report to allow operation of Hatch Unit 1 based on the conditions outlined herein.

Please contact this office at any time if you require any further information.

Yours truly,



for L. T. Gucwa

WRM/mb

xc: Mr. J. T. Beckham, Jr.
Mr. H. C. Nix, Jr.
Dr. J. N. Grace (NRC-Region II)
Senior Resident Inspector
NRC Office of Inspection and Enforcement
Division of Reactor Operations Inspection
(Washington)