TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

500A Chestnut Street Tower II

SEP 3 1980

Director of Licensing
Attention: Mr. Thomas A. Ippolito, Chief
Operating Reactors Branch No. 2
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Ippolito:

In the Matter of the	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296

Please refer to your letter to H. G. Parris dated April 25, 1980, regarding the effect of a dc power supply failure on ECCS performance. That letter transmitted, as an enclosure, an analysis of the effects of dc power supply failures on ECCS conformance calculations and requested that TVA confirm the conclusions of the analysis regarding the minimum ECCS equipment availability with a dc power supply failure for the Browns Ferry Nuclear Plant. Enclosed is the response to your April 25, 1980, letter for Browns Ferry.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. L. Cross
Executive Assistant
to the Manager of Power

Subscribed and sworn to before me
this 3rd day of Sept. 1980.

Bryant M. Lowery
Notary Public

My Commission Expires 4/4/82

Enclosure

8009090367

ENCLOSURE

RESPONSE TO LETTER FROM T. A. IPPOLITO
TO H. G. PARRIS DATED APRIL 25, 1980,
EFFECT OF DC POWER SUPPLY FAILURE ON ECCS PERFORMANCE
BROWNS FERRY NUCLEAR PLANT
(DOCKET NOS. 50-259, -260, -296)

We have identified no ECCS equipment that would be affected by water spillage since the drywell free drains to the torus and no water will accumulate. Based on our analyses, the limiting cases for ECCS remaining operable after a dc power failure are as follows:

Small Break

ECCS Systems	Break Location
1 CS + 1 LPCI + HPCI	Discharge
1 CS + 1 LPCI + ADS	Discharge
Same as above but with 3 LPCI's (two loops)	Suction

Large Break

ECCS Systems	Break Location
1 CS + 1 LPCI + ADS	Discharge
1 CS + 3 LPCI's (two loops) + ADS	Suction

Our conclusions are similar to those reached by General Electric Company in their letter from R. E. Engel (GE) to P. S. Check (NRC) dated November 1, 1978, regarding peak clad temperature (PCT) and the applicability of the present maximum average planar linear heat generation rate (MAPLHGR) limits.