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March 19, 1986

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. B. J. Youngblood, Project Director
PWR Project Directorate No. 4

Re: Catawba Nuclear Station, Unit 2
Docket No. 50-414

Dear Mr. Denton:

This letter is in response to a concern raised by the NRC Staff regarding a revision of the 125V DC Vital Instrumentation and Control Power Test (Section 14, SSER #5). This test was conducted as a part of the Initial Startup Test program for Units 1 and 2 of the Catawba Nuclear Station. The test abstract was revised to eliminate an unnecessary requirement for a comparison of the actual loads to the design loads on the vital buses during ESF testing on Unit 2.

A comparison of the actual loads to the design loads for this system was determined to be unnecessary for the following reasons:

- (1) The original calculations of the design loads were done for both units under the same calculation number.
- (2) The Low Voltage Load List for Vital DC panels shows the loads on the Unit 2 system to be very similar, in most cases equal to or less than, the loads on the Unit 1 system.
- (3) The actual loads on the Vital DC buses were recorded during ESF testing on Unit 1 to demonstrate that the design loads were conservatively calculated. The traces recorded during Unit 1 ESF testing are included in Enclosure 2 as well as a copy of FSAR figure 8.3.2-4. A comparison of these traces to FSAR figure 8.3.2-4 shows that the actual loads are significantly below the duty cycle for which the batteries were designed. Therefore, any differences in loads between the units are more than compensated for by the large margin of conservatism in the battery capacity.

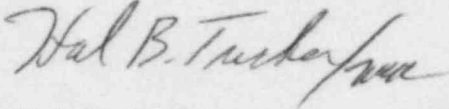
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For the above reasons, it is our conclusion that a comparison of actual loads to the design loads for the Vital DC System of Unit 2 is not necessary.

Very truly yours,



Hal B. Tucker

WLH:slb

Enclosure

cc: Dr. J. Nelson Grace, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

NRC Resident Inspector
Catawba Nuclear Station

Enclosure 1
Catawba Nuclear Station
Vital DC Loads
(Amp-Hours)

<u>Bus</u>	<u>Unit 1</u>	<u>Unit 2</u>
DGCA	13.88	13.88
DGCB	13.88	13.88
DGDA	1.73	1.73
DGDB	1.73	1.73
 <u>Distribution Centers</u>		
EDE	133.37	127.31
EDF	106.85	87.74
 <u>Panelboards</u>		
EPA	165.72	169.07
EPB	2.00	2.00
EPC	0.50	0.50
EPD	129.27	129.48

Enclosure 2

TRAIN (A) ESF TEST
BATTERY 1EBA

LOAD PROFILE (channels 1+3)
TPI/A/1350/19B

Work Req: 1689 IAE

Date: 3-22-84

Chart speed: 360 in/hr.

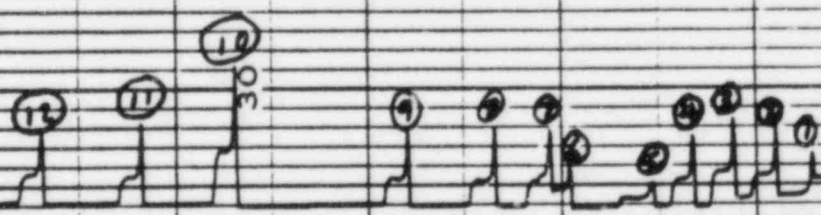
Scale: 0-400 AMPS

0-100%

Current (AMPS)

100
80
70
60
50
40
30
20
10

200
180
160
140
120
100
80
60
40
20



$t_0 + 1 \text{ min}$

$t_0 + 30 \text{ sec}$

t_0

TRAIN (A) BLACKOUT LOAD REJECTION TEST
BATTERY: IEBA

LOAD PROFILE (channels 1 + 3)

TP/1/A/1350/19B

work Req: 1699 IAE

Date: 3-28-84

CHART SPEED: 360 in/hr

Scale: 0 = 400 Amps

0 = 100%

Current
(Amps)



1 min

50 sec

TRAIN (B) Blackout Load Rejection Test
Battery 1EBD

LOAD PROFILE (channels 2 + 4)
TP11/A/1390/19B

Date: 4-1-84

Chart Speed: 120 in/hr

Scale: 0-400 Amps
0-100%

Work Req: 1689 IAE

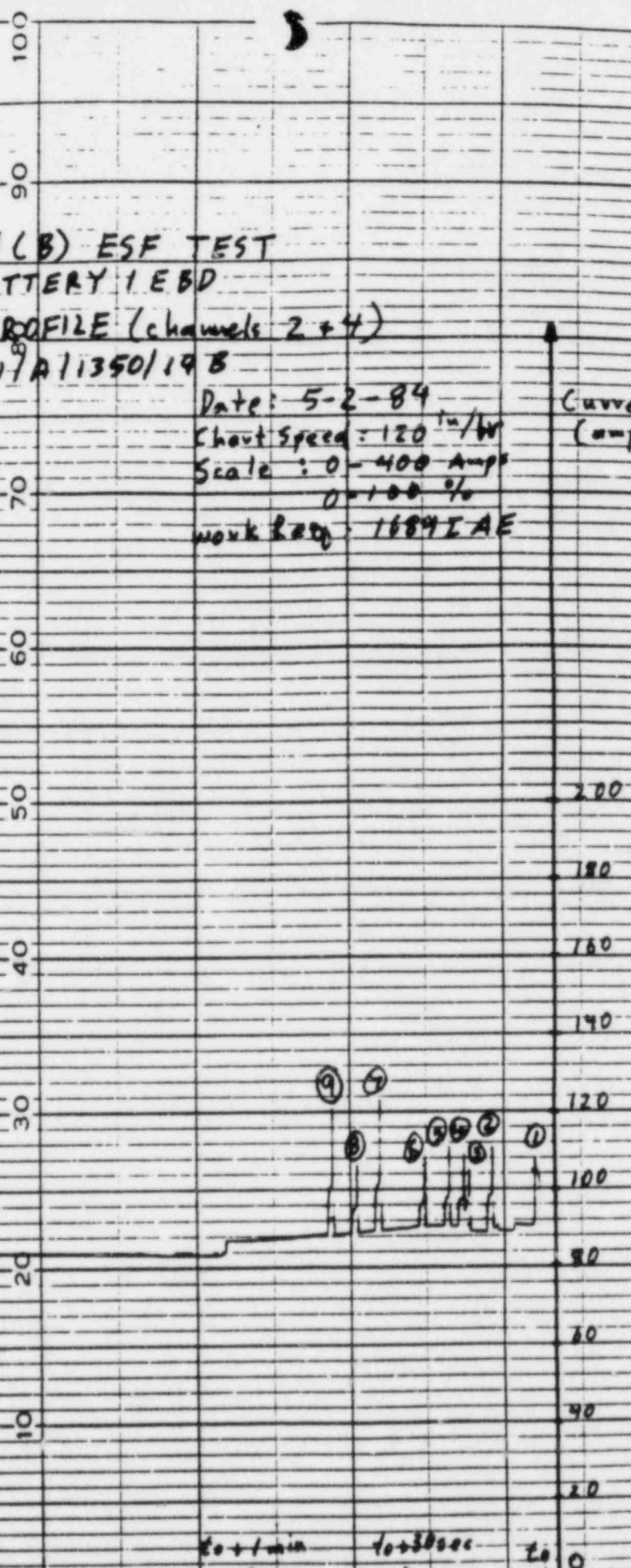
Current
(Amps)



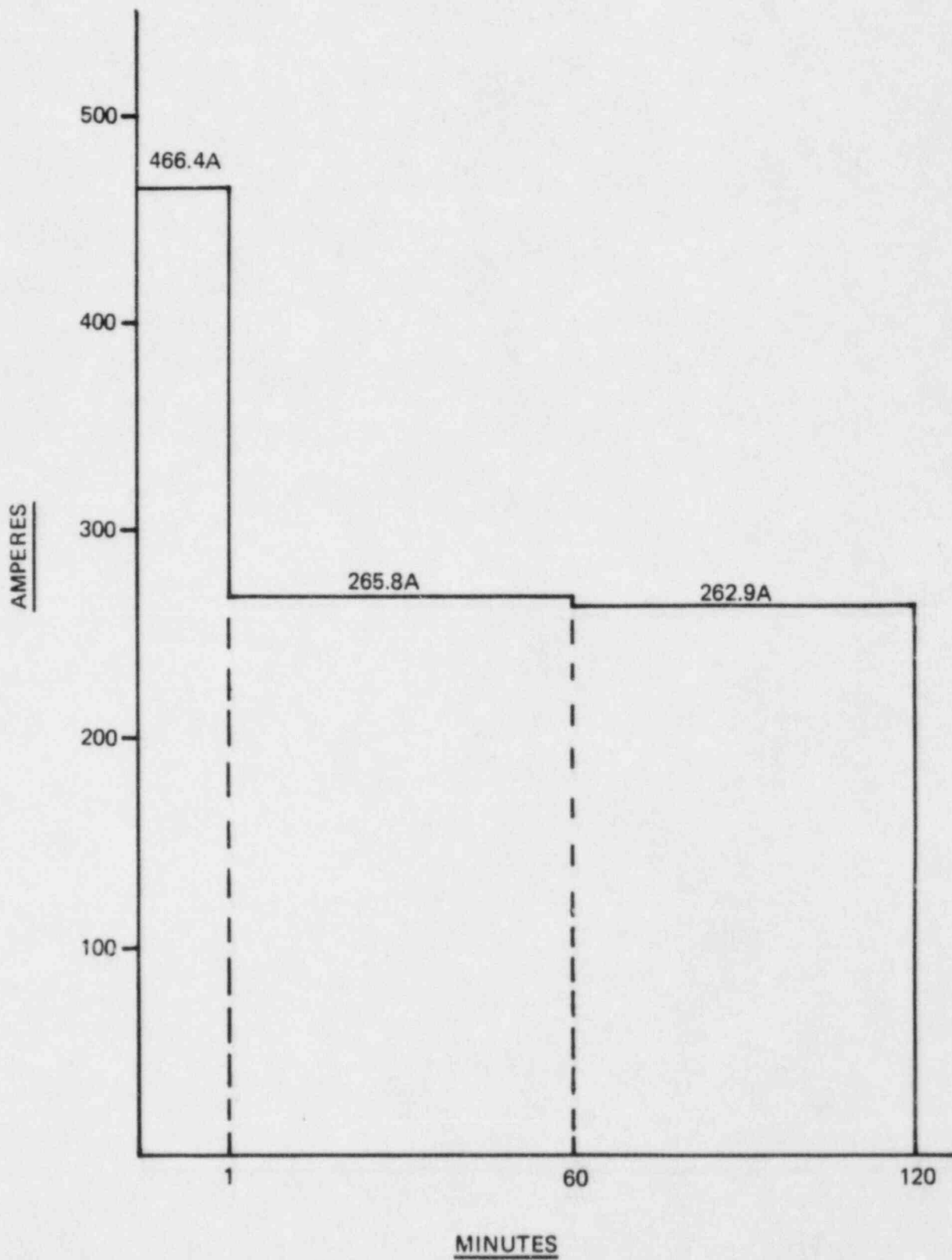
TRAIN (B) ESF TEST
 BATTERY 1 EBD
 LOAD PROFILE (channels 2 + 4)
 TPI 17A 1350/19 B

Date: 5-2-84
 Chart Speed: 120 in/W
 Scale: 0-400 Amps
 0-100 %
 work Reg: 1689 IAE

Current
(amps)



to + 1 min to + 30 sec



125VDC VITAL INSTRUMENTATION
AND CONTROL BATTERY DUTY CYCLE
CATAWBA NUCLEAR STATION

Figure 8.3.2-4
Rev. 7