

Power Generation Department



July 24, 1979

Mr. David M. Verrelli
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Verrelli:

In response to the request of Mr. Phil Polk, enclosed are oscilograph traces of the grid voltage and current flows during the Crystal River Plant trip and the subsequent Hatch 2 trip on July 11, 1979.

The top half of figure 1 was taken from the Pine Grove Substation near the Georgia - Florida boarder. The bottom half of figure 1 is the same time period at the Hatch 2 switchyard.

Figure 2 is from the Pine Grove Substation during the Crystal River Plant trip. Figures 3, 4, 5, and 6 are blowups of the Hatch oscilograph trace. Also inclded are single line drawings of the Hatch switchyard for your information.

If you desire to discuss these traces, please contact me.

Joe Betsill
J. A. Betsill

mt

Enclosures

*ADD:
S/I
ADD:
P Polk w/enc*

7908010373

510 257

4 SEC/IN

1202 HRS

PINE GROVE 7-11-79 1202

#79-119

Q2 AMPS, SUWANEE 230

Q1 AMPS, JASPER 115

Q1 AMPS, L.S. AUTOBKS

Q1 AMPS, KETTLE CREEK

Q2 AMPS, TWIN LAKES

Q1-N VOLTS 230 KV BUS

Q2-N VOLTS, 115 KV BUS

Q3-N VOLTS, 115 KV BUS

8 MW, SUWANEE

8 MVAR, SUWANEE

MUX

Grid Voltage

@ Pine Grove

247.0 kV

270 MW

4 SEC/IN

NEUT AMPS BK#2

FIELD VOLTS, GEN #2
(NOMINAL)

Q1 AMPS, GEN. #2

Q2 AMPS, GEN. #2

Q3 AMPS, GEN. #2

Q1-Q2 VOLTS, GEN #2

Q2-Q3 VOLTS, GEN. #2

HATCH FR #2
UNIT 2 TRIP

7-11-79

#79-118H

1202 HRS

3X NOMINAL
23,500 A

23,500 A

23,500 A

140%

105% 119% 128%

172%

125%

Time in Seconds →

Grid Voltage @ Hatch

Q1-N VOLTS, N. TIFTON 500

8 MW, GEN #2

8 MVAR, GEN #2

21300 MVAR

2000

Figure 1

POOR ORIGINAL

510 258

1158

Unit at Fla Pwr Corp

Tripped at 11:58:23

Grid Voltage

@ Pine Grove

Figure 2

4 SEC/IN

NEUT AMPS BK #2

FIELD VOLTS, GEN #2
(NOMINAL)

Q1 AMPS, GEN #2

Q2 AMPS, GEN #2

Q3 AMPS, GEN #2

Q1-Q2 VOLTS, GEN #2

Q2-Q3 VOLTS, GEN #2

Q1-N VOLTS, N. TIFTON 500

Q1-N VOLTS, N. TIFTON 500

Q1-N VOLTS, N. TIFTON 500

HATCH FR #2 7-11-79 #29-118A

UNIT 2 TRIP

3 X 1100 MW
Q3 1100 MW
Q2 1100 MW
Q1 1100 MW

Q1 1100 MW

Q2 1100 MW

Q3 1100 MW

140%

105%

119%

140%

140%

140%

140%

Q1 1100 MW

Q2 1100 MW

Q3 1100 MW

Fig 3

260

510

1/SEC

7-11-79 1202 HRS
HATCH UNIT 2 #79-118B (SAME POINTS AS #118A)

TIME FLUTTER

ZERO REF.

TIME FLUTTER

ZERO REF.

Fig X

26192

015

7400

HATCH UNIT 2 7-11-79 1202 HRS

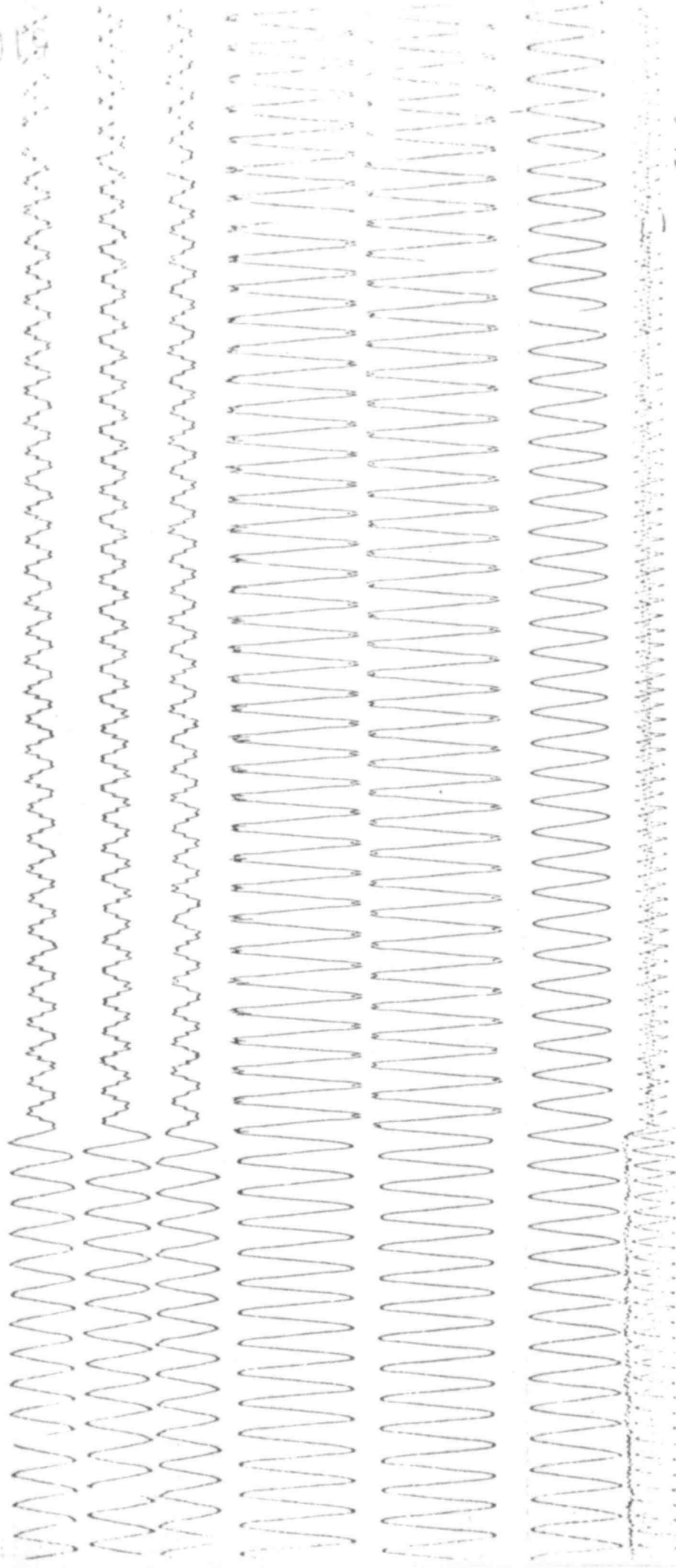
#27-1100 (SEE #1184)

HS. BKRS TRIPED

END OF

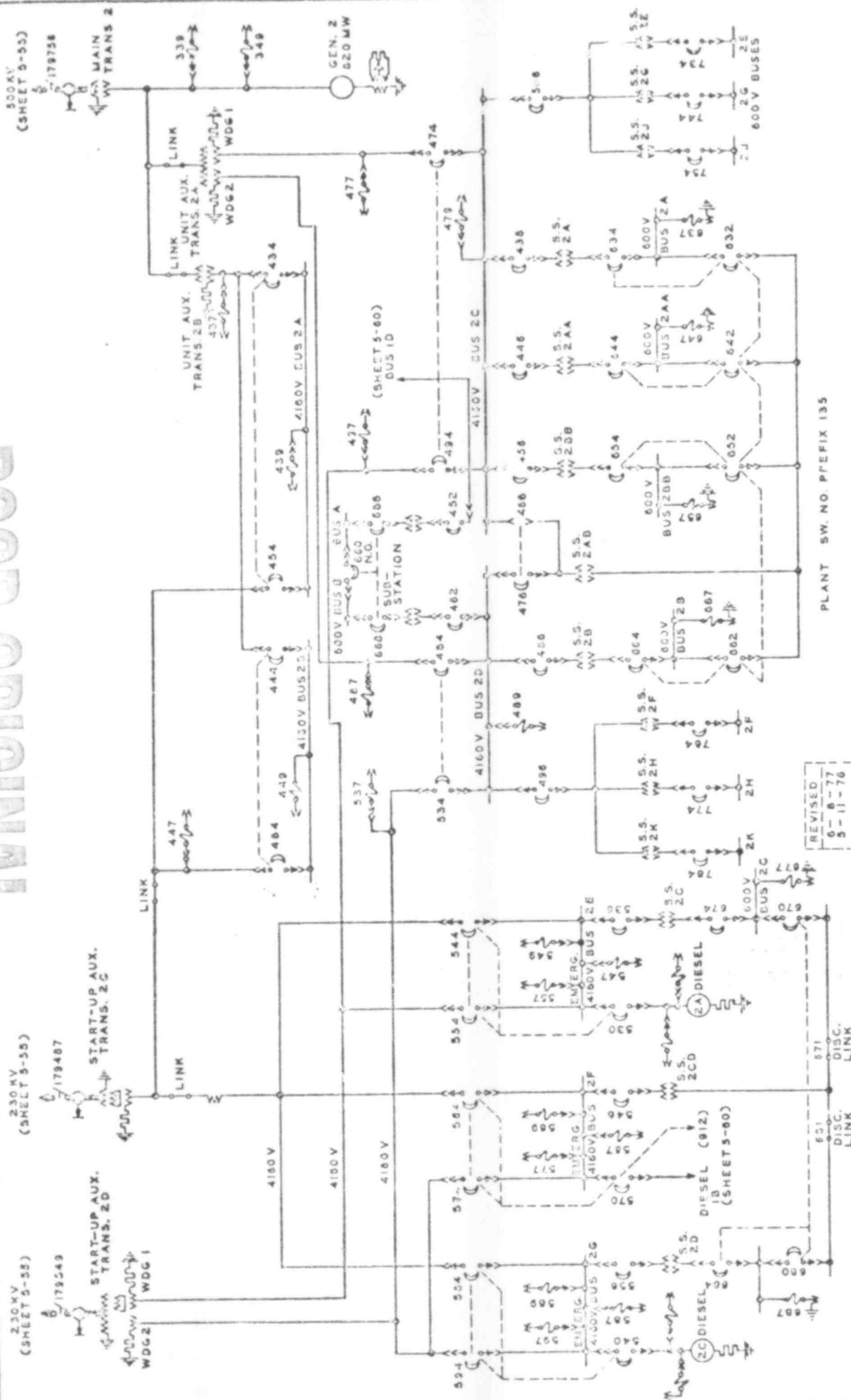
Fig 5

Fig 6



POOR ORIGINAL

16" / 35 / 91
MATCH UNIT 7-11-79 1202 HRS
(0811 # 335) 0811-76 # 2111 HRS

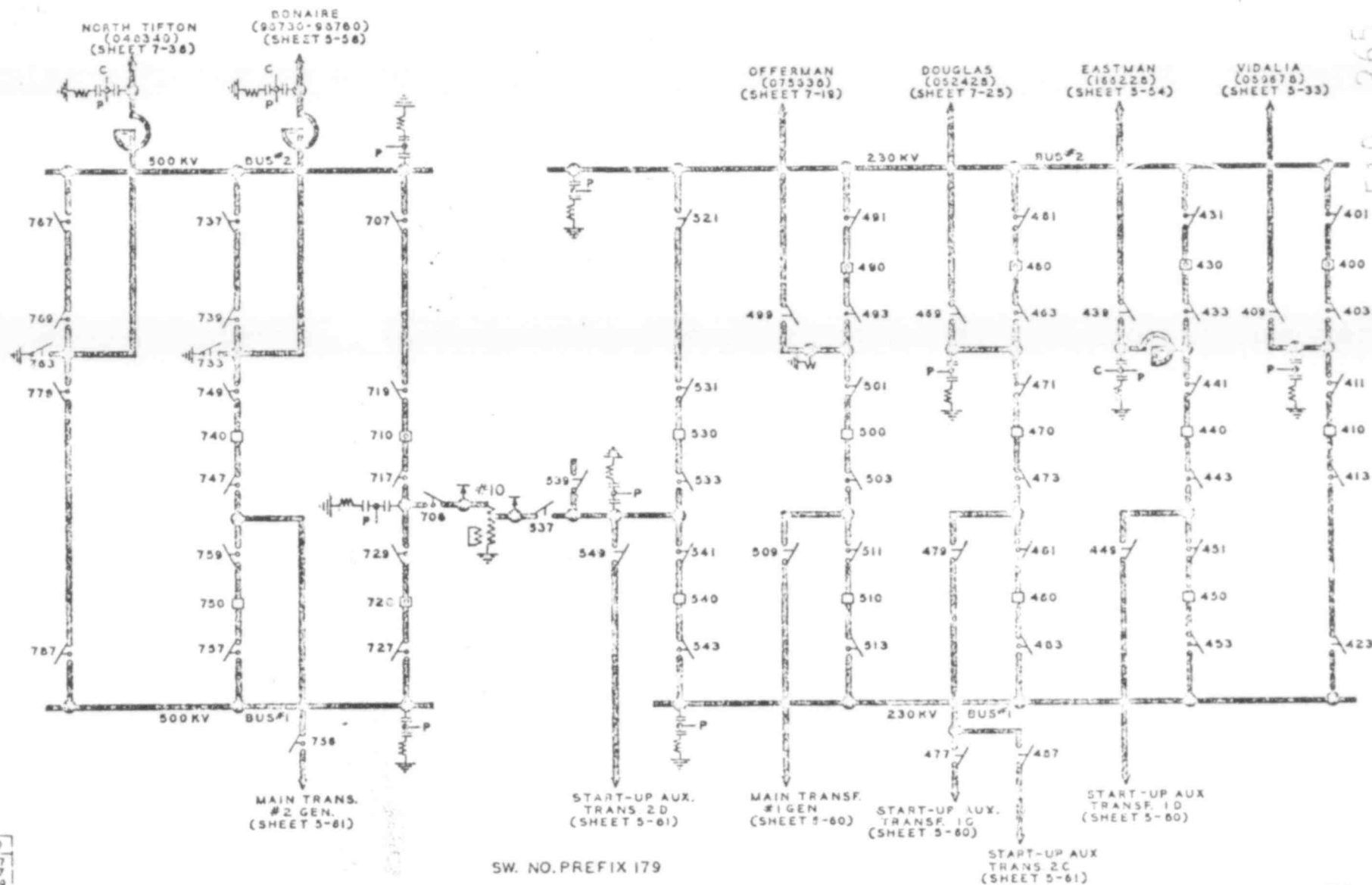


PLANT SW. NO. PFEFIX 135

REVISED
6-6-77
5-11-76

POOR ORIGINAL

SHEET NO. 5-55



REVISED
5-18-77
8-25-77
1-9-79

PLANT EDWIN I. HATCH
500KV-230KV SUBSTATION

5-18-77 P.T.G.

SHEET NO. 5-55