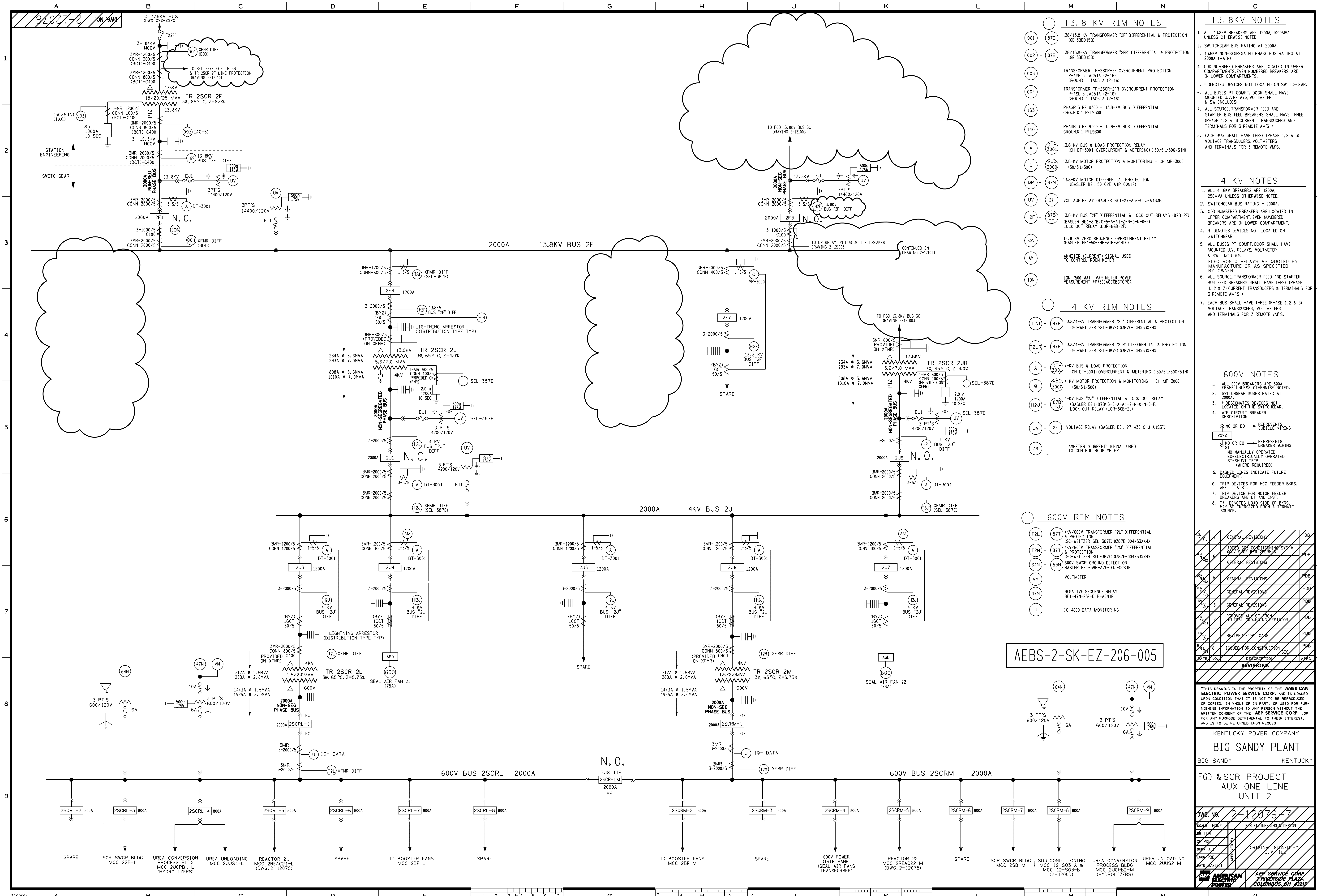




- ### 13.8 KV RIM NOTES
- 001 - 87E 138/13.8-KV TRANSFORMER "2F" DIFFERENTIAL & PROTECTION (GE 380015B)
 - 002 - 87E 138/13.8-KV TRANSFORMER "2F" DIFFERENTIAL & PROTECTION (GE 380015B)
 - 003 - TRANSFORMER TR-2SCR-2F OVERCURRENT PROTECTION PHASE 3 (ACS1A (2-16) GROUND 1 IACS1A (2-16))
 - 004 - TRANSFORMER TR-2SCR-2F OVERCURRENT PROTECTION PHASE 3 (ACS1A (2-16) GROUND 1 IACS1A (2-16))
 - 133 - PHASE 3 RFL9300 - 13.8-KV BUS DIFFERENTIAL GROUND 1 RFL9300
 - 140 - PHASE 3 RFL9300 - 13.8-KV BUS DIFFERENTIAL GROUND 1 RFL9300
 - A - (DT-3001) 13.8-KV BUS & LOAD PROTECTION RELAY (CH DT-3001 OVERCURRENT & METERING) (50/51/50G/51N)
 - Q - (MP-3000) 13.8-KV MOTOR PROTECTION & MONITORING - CH MP-3000 (50/51/50G)
 - QP - (87M) 13.8-KV MOTOR DIFFERENTIAL PROTECTION (BASLER BE1-50-G2E-A1P-G0N1F)
 - UV - (27) 13.8-KV BUS "2F" DIFFERENTIAL & LOCK-OUT-RELAYS (87B-2F) (BASLER BE1-87B-G-5-A1-Z-N-0-N-0-F) LOCK OUT RELAY (LOR-86B-2F)
 - 50N - 13.8 KV ZERO SEQUENCE OVERCURRENT RELAY (BASLER BE1-50-F4E-A1P-ADN1F)
 - AM - AMMETER (CURRENT) SIGNAL USED TO CONTROL ROOM METER
 - ION - ION 7500 WATT VAR METER POWER MEASUREMENT *P7500ADCCB6F0P0A
- ### 4 KV RIM NOTES
- T2J - (87E) 13.8/4-KV TRANSFORMER "2J" DIFFERENTIAL & PROTECTION (SCHWEITZER SEL-387E) 0387E-004X53XX4X
 - T2JR - (87E) 13.8/4-KV TRANSFORMER "2JR" DIFFERENTIAL & PROTECTION (SCHWEITZER SEL-387E) 0387E-004X53XX4X
 - A - (DT-3001) 4-KV BUS & LOAD PROTECTION (CH DT-3001 OVERCURRENT & METERING) (50/51/50G/51N)
 - Q - (MP-3000) 4-KV MOTOR PROTECTION & MONITORING - CH MP-3000 (50/51/50G)
 - H2J - (87B) 4-KV BUS "2J" DIFFERENTIAL & LOCK OUT RELAY (BASLER BE1-87B-G-5-A1-Z-N-0-N-0-F) LOCK OUT RELAY (LOR-86B-2J)
 - UV - (27) 4-KV BUS "2J" DIFFERENTIAL & LOCK-OUT-RELAYS (87B-2J) (BASLER BE1-87B-G-5-A1-Z-N-0-N-0-F) LOCK OUT RELAY (LOR-86B-2J)
 - AM - AMMETER (CURRENT) SIGNAL USED TO CONTROL ROOM METER
- ### 600V RIM NOTES
- T2L - (87T) 4KV/600V TRANSFORMER "2L" DIFFERENTIAL & PROTECTION (SCHWEITZER SEL-387E) 0387E-004X53XX4X
 - T2M - (87T) 4KV/600V TRANSFORMER "2M" DIFFERENTIAL & PROTECTION (SCHWEITZER SEL-387E) 0387E-004X53XX4X
 - 64N - (59N) 600V SWGR GROUND DETECTION BASLER BE1-59N-A7E-D1J-COS1F
 - VM - VOLTMETER
 - 47N - NEGATIVE SEQUENCE RELAY BE1-47N-E3E-D1P-ADN1F
 - U - 10 4000 DATA MONITORING

13.8KV NOTES

- ALL 13.8KV BREAKERS ARE 1200A, 1000MVA UNLESS OTHERWISE NOTED.
- SWITCHGEAR BUS RATING AT 2000A.
- 13.8KV NON-SEGREGATED PHASE BUS RATING AT 2000A (MAIN).
- 000 NUMBERED BREAKERS ARE LOCATED IN UPPER COMPARTMENTS, EVEN NUMBERED BREAKERS ARE IN LOWER COMPARTMENTS.
- # DENOTES DEVICES NOT LOCATED ON SWITCHGEAR.
- ALL BUSES PT COMPT. DOOR SHALL HAVE MOUNTED UV, RELAYS, VOLTMETER & SW. INCLUDES:
- ALL SOURCE, TRANSFORMER FEED AND STARTER BUS FEED BREAKERS SHALL HAVE THREE (PHASE 1, 2 & 3) CURRENT TRANSFORMERS AND TERMINALS FOR 3 REMOTE AM'S.
- EACH BUS SHALL HAVE THREE (PHASE 1, 2 & 3) VOLTAGE TRANSFORMERS, VOLTMETERS AND TERMINALS FOR 3 REMOTE VM'S.

4 KV NOTES

- ALL 4KV BREAKERS ARE 1200A, 250MVA UNLESS OTHERWISE NOTED.
- SWITCHGEAR BUS RATING - 2000A.
- 000 NUMBERED BREAKERS ARE LOCATED IN UPPER COMPARTMENT, EVEN NUMBERED BREAKERS ARE IN LOWER COMPARTMENT.
- # DENOTES DEVICES NOT LOCATED ON SWITCHGEAR.
- ALL BUSES PT COMPT. DOOR SHALL HAVE MOUNTED UV, RELAYS, VOLTMETER & SW. INCLUDES:
- ELECTRONIC RELAYS AS QUOTED BY MANUFACTURE OR AS SPECIFIED BY OWNER
- ALL SOURCE, TRANSFORMER FEED AND STARTER BUS FEED BREAKERS SHALL HAVE THREE (PHASE 1, 2 & 3) CURRENT TRANSFORMERS & TERMINALS FOR 3 REMOTE AM'S.
- EACH BUS SHALL HAVE THREE (PHASE 1, 2 & 3) VOLTAGE TRANSFORMERS, VOLTMETERS AND TERMINALS FOR 3 REMOTE VM'S.

600V NOTES

- ALL 600V BREAKERS ARE 800A, 250MVA UNLESS OTHERWISE NOTED.
- SWITCHGEAR BUSES RATED AT 2000A.
- 1 DESIGNATES DEVICES NOT LOCATED ON THE SWITCHGEAR.
- AIR CIRCUIT BREAKER DESCRIPTION
- NO OR EO - REPRESENTS CURBULE WIRING
- XXXX - REPRESENTS BREAKER WIRING
- NO OR EO - REPRESENTS MANUALLY OPERATED
- EO - ELECTRICALLY OPERATED
- ST - SHUNT TRIP (WHERE REQUIRED)
- DASHED LINES INDICATE FUTURE EQUIPMENT.
- TRIP DEVICES FOR MCC FEEDER BKRS. ARE LT & ST.
- TRIP DEVICE FOR MOTOR FEEDER BREAKERS ARE LT AND INST.
- *#* DENOTES LOAD SIDE OF BKRS. MAY BE ENERGIZED FROM ALTERNATE SOURCE.

DATE	NO.	DESCRIPTION	BY	APP'D.
		GENERAL REVISIONS		
		ADDED SWGR GROUNDING SYSTEM		
		GENERAL REVISIONS		
		GENERAL REVISIONS		
		GENERAL REVISIONS		
		GENERAL REVISIONS		
		GENERAL REVISIONS		
		REMOVED AUX CT FROM NEUTRAL GROUNDING RESISTOR		
		REVISED 600V LOADS		
		ISSUED FOR CONSTRUCTION		
		DESCRIPTION		

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KENTUCKY POWER COMPANY
BIG SANDY PLANT
BIG SANDY KENTUCKY

F&D & SCR PROJECT
AUX ONE LINE
UNIT 2

DWG NO. 2/12076/7

SCALE	NAME	DATE
1"=16'	SCR ENGINEERING & DESIGN	
1"=16'	ORIGINAL SIGNED BY	
1"=16'	DATE	

AMERICAN ELECTRIC POWER
AEP SERVICE CORP.
RIVERSIDE PLAZA
COLUMBUS, OH 43215

SYSTEM DATE-18 MAR 2003
SYSTEM TIME-13:09:24