CON EDISON REVISION
21
THIS REVISION IS CLASS'A' AS PER CI-240-1 IN CONJ WITH MODIFICATION TO E.C.C. SYSTEM VALVE CIRCUITRY (PHASE 2) MODIFY CONN'S AS SHOWN RELEASED PER CON EDISON Co. MODIFICATION PROCEDURE # ESG 76-2-07 REV. #1 P/N 6039
5-5-76 EO/BTM

CON EDISON REVISION
20
THIS REVISION IS CLASS'A' PER CI-240-1 REMOVED HOLD ON REVISION # 17. IN CONJ. WITH INSTALL. OF D.C. TEST SET-UP FOR D.C. BATTERIES #21 & 22. ADD SQUARE 'D' Co. CIRC. BKRS & CONN'S AS SHOWN. ADD SYMBOL KP. THIS WORK TO BE DONE IN ACCORDANCE WITH MODIFICATION PROCEDURE ESG-76-2-16 P/N 3131
EO/

CON. EDISON REVISIONS
6 — IN CONN. WITH INSTALL. OF CONTAINMENT BLDG. PURGE, AIR, H2, O2 & BORIC ACID BLDG. CHARCOAL FILTER FIRE PROT. SYSTEMS — ADDED 125 V.D.C. FEED TO FORMED STAINLESS STEEL DISTRIB. PANEL # 23 AS SHOWN. ADDED CONFORMED REF. DWG. NO. RELEASED IN ACCORDANCE WITH CONSTRUCTION GENERAL SPEC. E-1-600C-REV 8 DETAIL SPEC. E-1-600S-216 PROJ # 1231 JHS/S.C.
17 — IN CONN. WITH INSTALLATION OF D.C. TEST SET-UP FOR D.C. BATTERIES # 21 & 22 — ADD D.C. CIRC. BKRS FOR SAME AND ADD SYMBOL "KM" AS SHOWN. PROJ # 3131 PV.
18 — IN CONN. WITH INSTALL. OF C.B. PURGE, AUX. B.A.B. CHARCOAL FILTER FIRE PROT. SYSTEM — THIS DRAWING CONTAINS CLASS 'A' ITEMS AS DEFINED BY CORP. INSTR. CI-240-1 — ISSUED FOR CONSTR. PROJ # 1231
19 — THIS WORK TO BE DONE IN ACCORDANCE WITH CON EDISON MODIFICATION PROCEDURE E.S.G. 75-2-16. THIS REVISION IS CLASS 'A' AS PER CI-240-1 — IN CONN. WITH REPLACEMENT OF EXISTING STATIC INVERTERS PER I.P.2.C. ASSOCIATED WITH CRITICAL INSTRUMENTATION INCLUDES 1 AND 2 NEW STATIC INVERTER (CLOSE) 2 MANUAL BY-PASS SWITCHES "EGA1" & "EGA2" AND WIRING CHANGES AS SHOWN — ISSUED FOR CONTRACTOR WORK AS PER CON EDISON LETTER DATED 8-1-1975 REV'S AND CI-SWD-3472 — PROJ # 1231

125 V. D-C POWER PANEL 22 (PC2)

125 V. D-C POWER PANEL 21 (PC1)

800A BUS

BUS TIE (NORMALLY OPEN) 2-500 MCM/LEG

DISC & MAKE SPARE

60 CELL BATTERY 22 (1600 AH - 8 HR. RATE)

60 CELL BATTERY 21 (1600 AH - 8 HR. RATE)

REPLACE THESE INVERTERS WITH NEW INVERTERS

PORTABLE D.C. TEST SET-UP

HOLD

ADD CONN'S & EQUIPT

MANUAL BY-PASS SWITCH "EGA2"

MANUAL BY-PASS SWITCH "EGA1"

EMERG. LTG. NUCLEAR PLANT

EMERG. LTG. CONTROL ROOM

EMERG. LTG. DIESEL GEN. BLDG.

EMERG. LTG. CONVENTIONAL PLANT

100 A TRANSFER SWITCH (LOCATED IN LTG. PANEL IN PRIMARY AUX. BLDG.)

30A TRANSFER SWITCH 23

60A TRANSFER SWITCH 21

125 V D C DISTRIBUTION PANEL 23

MAIN TRANS. 22 DELUGE SYSTEM
STA. AUX TRANS DELUGE SYSTEM
TURB. OIL RESERVOIR DELUGE SYSTEM
LUBE OIL STOR. TANK DELUGE SYSTEM
MAIN TRANS. 21 DELUGE SYSTEM
UNIT AUX TRANS DELUGE SYSTEM
B.F.P. OIL CONSOLE DELUGE SYSTEM
HYDROGEN SEAL OIL UNIT DELUGE SYSTEM
FAN COOLING CONDENSATE MEASURING SYSTEM
DIRECT TRIP TO 4 FROM BUCHANAN
HYDROGEN ALARM LIGHT FOR BULK HYDROGEN CONTROL UNIT IN UNIT 4 CHLORINATION AREA
HYDROGEN RECOMBINER ALARMS
PANEL "SD" ANNUNCIATOR FEED
REACTOR TRIP RELAY TRAIN B (SPARE)
INVERTER 'YB' PNB FOR TURBINE BLDG.
TURBINE REDUNDANT OVER SPEED TRIP (TRAIN A)
SERVICE BOILER CONTROL PANEL 21
ELEC. TUNNEL FIRE PROT. SYS.
C.B. PURGE, PAB & BAB CHARCOAL FILTER FIRE PROT. SYSTEM (DWG. # A1855636)
AUX. RELS. ELEC. TUNNEL EXIT FAN 21 & 22

125 V D-C DISTRIBUTION PANEL 22 (PC4)

PILOT WIRE RELAYS BACK-UP
INTERPOSING RELAYS
UNIT AUX. TRANSFR. RELAYS & AUX. TRANSFORMER RELAYS
SAMPLING SYSTEM SOLENOIDS
GAS ANALYZER CABINET
SAFETY INJECTION VALVES
WEIR POSITION INDICATION & ELECTRONIMETER ALARMS
REACTOR TRIP RELAY TRAIN B (SPARE)
B.F.P. TURBINE 22 GOVERNOR VALVE & TRIP RELAYS
DIESEL-GEN. CONTROL SUPPLY - ENGERG.
RECIRC. PUMP & IND. LIGHT PANEL
WASTE DISPOSAL SOLENOIDS, P.I.D. POST
AUX. B.F.P. 22 RECIRC. VALVE
FIRE/OUT ANNUNCIATORS
PILOT SOLENOID AIR DIAPHRAGM VALVES
T/G LOAD LIMIT VALVE 1
GENERATOR RELAYS - BACK-UP
SAFEGUARDS RELAY CIRCUITS
T/G AUTO-STOP TRIP SOLENOID BACKUP
TURBINE REDUNDANT OVERSPEED TRIP TRAIN "B"

125 V. D-C DISTRIBUTION PANEL 21 (PC3)

MISC. CONTROL BOARD INDICATING LAMPS
GENERATOR RELAYS - BACK-UP
SAFETY INJECTION VALVES
PILOT WIRE RELAYS PRIMARY
PILOT SOLENOID AIR DIAPHRAGM VALVES
T/G GOVERNOR SPEED CHANGER
GAS STRIPPER 22 CONTROL PANEL (CONT. AND PRESS. REG.)
AUX. B.F.P. 21 RECIRC. VALVE
T.G. VALVES STOP TRIP SOLENOIDS-PRIMARY
TRANSFORMER AREA DELUGE
SUPERVISORY ANNUNCIATORS
REHEATER DRAIN CONTROL SHUT OFF VALVES
B.F.P. TURBINE 21 GOVERNOR STOP & TRIP RESET VALVES
DIESEL'S CONTROL SUPPLY - NORMAL
ALERT SIREN INTERROGATOR - DAY CHG
T/G LOAD LIMIT VALVE 2
MAIN STEAM ISOLATION VALVES CONTROL
DEMINERALIZING SYSTEM
STATION AUXILIARY TRANSFR. & RELAYS
SAFEGUARDS RELAY CIRCUITS

REFERENCE DWGS.
9321-F-3004 SINGLE LINE DIAG. 480V M.C.C.'S SH. 1
9321-F-3005 SINGLE LINE DIAG. 480V M.C.C.'S SH. 2
9321-F-3006 SINGLE LINE DIAG. 208V M.C.C.'S SH. 3
9321-F-3241 WIRING DIAG. 125V D.C. DISTR. PANEL 21 & 22

POOR ORIGINAL

TERA APERTURE CARD

PRC APERTURE CARD

THIS DRAWING CONTAINS "CLASS A" ITEMS AS DEFINED BY CORPORATE INSTRUCTION CI-240-1

NOTE: THIS DRAWING SUPERSEDES CON. EDISON DWG # 9305-708

SQUARE 'D' Co. MOLDED CASE CIRC. BKR. 250 V.D.C. 1000A. TRIP THERMAL MAGNETIC CAT # MAL 26100 C0 IN NEMA I ENCLOSURE EM 19710 ITEM # 11

SYMBOLS

~~I.T.E. Co. TYPE HEG 2-POLE, 250 V.D.C. CIRCUIT BREAKER INITIALS DESIGNATE FRAME TYPE 1000 AMPS.~~

WESTINGHOUSE AB OR RN 2-POLE, 250 V.D.C. CIRCUIT BKR. INITIALS DESIGNATE FRAME TYPE

THERMAL MAGNETIC ELEMENT NUMERALS DESIGNATE CONTINUOUS RATING

CONTROL ROOM

BATTERY ROOM

125 V.D.C. STARTER & SIZE

NOTES

1 - 125 V. D-C POWER PANELS 21 & 22 TO BE WESTINGHOUSE TYPE DDP
2 - 125 V. D-C DISTRIBUTION PANELS 21, 22 & 23 TO BE WESTINGHOUSE TYPE NNB
3 - THIS BKR. HAS MAGNETIC TRIP ELEMENT ONLY

NO	DATE	DESCRIPTION	ENGR	SUP ENG
15	10/13	FINAL ISSUE		
14	2/13	REV. CKT. 19, PNL. 22		
13	5/12	REV. PNL. TO SHOW 2, 8 & PNL. 23 DIST. PNL. 19		
12	5/31	ADDED UNITS 17-18-20 DIST. P. 21		
11	7/30	ADDED UNITS 14-20 DIST. P. 22		
10	8/5	ADDED UNITS 3-4-13-15 TO DIST. PNL. 23 & ADDED UNIT 6 DIST. PNL. 22		
9	8/31	PNL. 23, TO SHOW 17 SPARE & PNL. 21, 17 TO SHOW 3 SPARE		
8	9/12	REVISED WIRE NOS. IN DIST. PANELS 21 & 22		
7	9/26	REVISED PER CONSTR. COMMENTS		
6	10/26	REV. PNL. PNLS. 21 & 22 REV. PWR. DIST. PNL. 21 & 22		
5	3/26	ADDED CKTS. TO PWR. PNL. 21 & DIST. PNL. 21		
4	4/26	PWR. BUS 21, 22 & DIST. PNL. 21 REVISED TO SHOW SPARE CKT. ADDED TO DIST. PNL. 22		
3	9/26	ADDED BKR. & CKTS. NUMBERS & CON. TERMINAL STRIPS		
2	11/26	REVISED PER W COMMENTS		
1	11/26	AS BUILT FOR CONSTRUCTION		
0	11/26	FIRST ISSUE FOR APPROVAL		

ENGINEER Gilbert Associates
STATE REG. NO. 19451
UNITED ENGINEERS & CONSTRUCTORS INC.

WESTINGHOUSE ELECTRIC CORPORATION

SINGLE LINE DIAGRAM D-C SYSTEM

FOR CONSOLIDATED EDISON COMPANY
INDIAN POINT GENERATING STATION
UNIT NO. 2

U.E. & C. DWG. NO. 9321-F-3008-21
REV.
CON. ED. CO. DWG. NO. 200877

INCHES 0 1 2 3 4 5 6

50-247
5-27-76
Control 6066