12177-EE-18H-2

2NJS-US3 (9) (15) 2NJS-US4
2V88-BKR1 2V88-BKR2
2V88-TRS1 AUTO TRANSFER SWITCH 3PH 400A

125VDC BUS 28YS-SWG001C (EE-18R)
600V,3PH 2V88-PNL301
600V BUS 2LAT-PNL300 (EE-18B)
(14) 2NJS-US3 NC

(5) 2NJS-US6 — 2V88-XD602 600V-208Y/120V 112.5 KVA; 2V88-XRC602 208Y/120V-208Y/120V 75KVA; 2V88-UPS1O 75KVA
(17) 2NJS-US5 — 2V88-XD500 600V-208Y/120V 112.5 KVA; 2V88-XRC500 208Y/120V-208Y/120V 75KVA; 2V88-LPS1A 75KVA; 208Y/120V BUS 2V8S-PNLA101; 208Y/120V BUS 2V8S-PNLA102 NOTE 4
(7) 2NJS-US6 — 2V88-XD601 600V-208Y/120V 112.5 KVA; 2V88-XRC601 208Y/120V-208Y/120V 75KVA; 2V88-UPS1B 75KVA; 208Y/120V BUS 2V8S-PNLB101; 208Y/120V BUS 2V8S-PNLB102 NOTE 4
(2) 2NJS-US5 — 2V88-XD501 600V-208Y/120V 112.5 KVA; 2V88-XRC501 208Y/120V-208Y/120V 75KVA; 2V88-UPS1C 75KVA; 208Y/120V BUS 2LAT-PNL017; NC
(18) 2NJS-US9 — 2SCI-XD200 600-120V,1PH; 2SCI-REG2 VOLTAGE REG
(15) 2NJS-US4 — 2SCI-XD100 600-120V,1PH; 2SCI-REG1 VOLTAGE-REG
2SCI-TRS1 AUTO TRANSFER SWITCH 1PH 400A
2SCI-SWS1 RADWASTE CONT RM 4 POLE DOUBLE THROW 400A MANUAL BYPASS

2SCI-PNL100 120V,1PH NORMAL (RELIABLE) INSTR & CONT BUS
120V,1PH 2SCI-PNLA101; 2SCI-PNLA102; 2SCI-PNLA103; 2SCI-PNLA105; 2SCI-PNLB101; 2SCI-PNLB102; 2SCI-PNLB103; 2SCI-PNLC104

-2B NC; -1B NC; SEE NOTE 3; -2C NC; 100mv; TEST LOAD
125VDC BUS 28YS-BAT1C; 125VDC 28YS-CHGR1C1
(3) 2NJS-US6

208V,3PH 2V88-PNL300
2V8S-ISLXC100 30KVA,3PH 208-208Y/120V; 208Y/120V BUS 2V8S-PNLC100 NOTE 4
2V8S-ISLXC101 30KVA,3PH 208-208Y/120V; 208Y/120V BUS 2V8S-PNL 101 NOTE 4

(6) 2NJS-US6 — 600V BUS 2NJS-PNL600 (EE-18G)
28WS-XD003B 15KVA 600-120/240; 28WS-BKR3B; 2V88-XRC603 25KVA 600-120V
2410DC 28WS-CHGR3B1; 2410DC 28WS-CHGR3D1
24VDC 28WS-BAT3B; 24VDC 28WS-BAT3D
24489VDC BUS 28WS-PNL300B (EE-18K) TO PCC DIV II NIS CONTROL BUS
(4) 2NJS-PNL402 — 2V88-UPS3B 10KVA; 2V88-BKR3B; EPA 2V8S*ACB1B; EPA 2V8S*ACB2B
2V8S* PNLB101 — 120V,1PH 2V8S*PNLB103; 2V8S*PNLB104; 2V8S*PNLB105; 2V8S*PNLB106 NOTES 4 & 6

125VDC BUS 28YS-SWG001B (EE-18R)
-3D NC; -1B NC; SEE NOTE 3; -2B NC; -2D NC; -2C NC; 100mv; TEST LOAD
125VDC BUS 28YS-BAT1B; 125VDC 28YS-CHGR1B1
(8) 2NJS-US6 — 2V88-XD600 600V-208Y/120V 112.5 KVA; 2V88-XRC600 208Y/120V-208Y/120V 75KVA
2NJS-MCC206 (19) — 2V88-UPS1D 75K-A; 208Y/120V BUS 2LAT-PNL016; NC
(10) 2NJS-US6; (11) 2NJS-US5

125VDC BUS 28YS-SWG001A (EE-18R)
-2D NC; -1B NC; SEE NOTE 3; -2B NC; -3D NC; 100mv; TEST LOAD
125VDC BUS 28YS-BAT1A; 125VDC 28YS-CHGR1A1

(13) 2NJS-US1 — 600V BUS 2LAT-PNL100 (EE-18B)
2RPM-X1A 15KVA 600-120/240; 2RPM-BKR1A; (12) 2RPM-PNL1A
(1) 2NJS-US5 — 600V BUS 2NJS-PNL500 (EE-18D)
2V88-XRC503 25KVA 600-120V
28WS-XD003A 15KVA 600-120/240; 28WS-BKR3A
2410DC 28WS-CHGR3A1; 2410DC 28WS-CHGR3C1
24489VDC BUS 28WS-PNL300A (EE-18K) TO PCC DIV I NIS CONTROL BUS
24VDC 28WS-BAT3A; 24VDC 28WS-BAT3C
2V8S* PNLA101 — EPA 2V8S*ACB1A; EPA 2V8S*ACB2A; 120V,1PH 2V8S*PNLA103; 2V8S*PNLA104; 2V8S*PNLA105; 2V8S*PNLA106 NOTES 4 & 6

NOTES:
1. FOR GENERAL NOTES AND LEGEND EE-1CA.
2. ALL DC BREAKERS ARE TWO POLE.
3. BATTERY BREAKERS TO BE USED FOR BATTERY TEST.
4. ALL MAIN SWITCHES IN DISTRIBUTION PANELS ARE NORMALLY CLOSED.
5. FOR CONTINUATION OF NORMAL BUS ONE LINE DIAGRAM SEE EE-18A.
6. PANELBOARDS 2V8S*PNLA103,A104,A105,A106 AND 2V8S*PNL103,B104,B105,B106 SUPPLY DIVISIONALIZED CHANNEL POWER TO RPS AND OTHER MISC CONTROL CIRCUITS. THESE PANELBOARDS ARE FED FROM NORMAL (QA CAT I) POWER SUPPLIES BECAUSE THE CONTROL CIRCUITS SUPPLIED FROM THESE PANELBOARDS RETURN TO A FAIL-SAFE MODE UPON LOSS OF ELECTRICAL POWER. THESE PANELBOARDS AND ASSOCIATED SUPPLY CIRCUIT BREAKERS ARE QA CAT I TO PROTECT DOWNSTREAM QA CAT I EQUIPMENT FROM OVERLOAD AND SHORT CIRCUIT CONDITIONS.
7. SET 28YS-CHGR1A1.1B1 &1C1 AC INPUT CIRCUIT BREAKER AT LOWEST POSSIBLE INSTANTANEOUS SETTING.
8. SET 28YS-CHGR1A1.1B1 &1C1 DC INPUT CIRCUIT BREAKER AT HIGHEST POSSIBLE INSTANTANEOUS SETTING.
9. SET 28YS-CHGR1A1.1B1 & 1C1 HIGH VOLTAGE SHUTDOWN PICKUP AT 142 VOLTS DC.
10. 28WS-CHGR3A1.3B1.3C1 & 3D1 AC INPUT CIRCUIT BREAKER IS NON-ADJUSTABLE.
11. SET 28YS-CHGR3A1 & 3B1 DC OUTPUT CIRCUIT BREAKER INSTANTANEOUS SETTING AT ITS HIGHEST POINT.
12. SET 28WS-CHGR3A1.3B1.3C1 & 3D1 HIGH VOLTAGE SENSING RELAY PICK UP SETTING AT 30 VOLTS DC.
13. SET 28WS-CHGR3A1.3B1.3C1 & 3D1 LOW VOLTAGE SENSING RELAY AT 25 VOLTS DC.

D

TI APERTURE CARD

THIS DRAWING CREATED ELECTRONICALLY

APPROVED (signature) LICENSED PROFESSIONAL ENGINEER, NO. ALTERATION EXCEPT BY A LICENSED PROFESSIONAL ENGINEER IS ILLEGAL

NUCLEAR SAFETY RELATED
QA CAT I & II

ONE LINE DIAGRAM
LOW VOLTAGE
POWER DISTRIBUTION
NINE MILE POINT NUCLEAR STATION-UNIT 2
NIAGARA MOHAWK POWER CORPORATION
STONE & WEBSTER ENGINEERING CORPORATION CHERRY HILL, N.J.
CH DRAWING NUMBER 12177-EE-1BH-2

DESIGNED BY T.DONAHUE DRAWN BY D.CAHILL
CHKD BY L.CHEESEMAN CHKD BY T.DONAHUE
AREAS 1 THRU 5 LEVELS 33A

ISSUE	DESCRIPTION	CHKD	CORRECT
0			
5			
4			
3			
2	SEE RECORD OF DRAWING CHANGES RCE-1BH-2		
1	ORIGINAL ISSUE FOR ENGINEERING ONLY	PJC	PJH

ISSUE	PCT	ARCH	CIVIL	CONC	STL	LAP	INST	N.S.	P.S.	S.A.	FAC	ELEC	LTG	BAT'L
2	90													

THE INFORMATION ON THIS DRAWING MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40