

DNB Emergency Off Procedures

Version draft

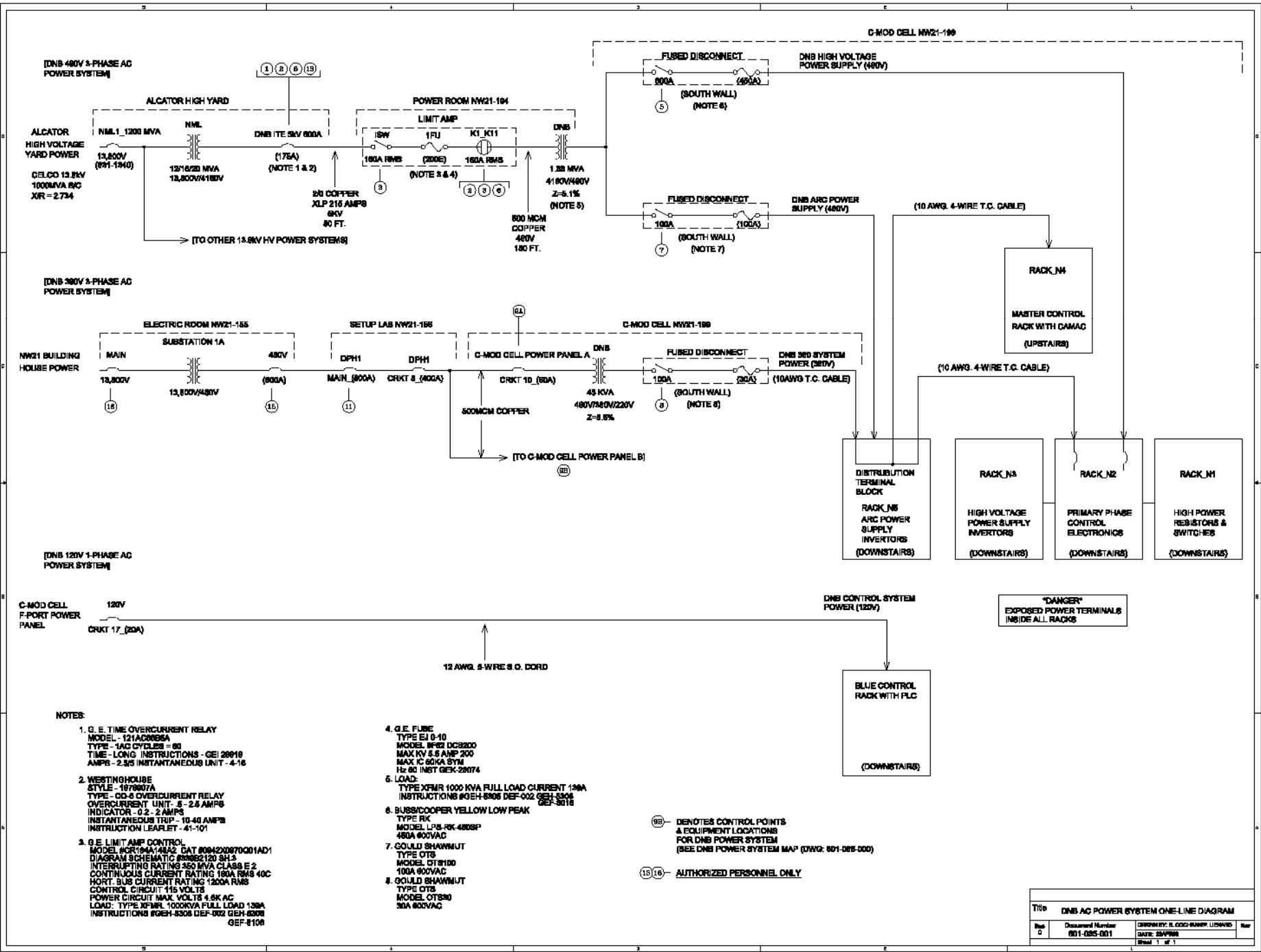
4/22/08

DNB Emergency Off Procedure

Refer to the DNB Power System Map (601-085-000) and DNB AC Power System One-Line Diagram (601-085-001) included below. Locations on map are designated below in ○. In case of emergency, first turn off all 480VAC DNB power systems as follows:

- Open DNB 5kV Breaker by turning the DNB Remote 5kV Breaker Control (1) to the trip position, or by clicking the DNB Control Station Remote Breaker Open button on the Power Screen (2). This breaker can also be opened manually at the breaker (13) in the high yard cubicle and in the experimental cell at the DNB Cell Limit Amp and 5kV breaker control if necessary (6).
- Open the Limit Amp Switch if not already open by clicking the DNB Control Station Remote Limit Amp control on the Power Screen (2) or by pressing the local control off button at the Limit-Amp in the power room (3). The Limit Amp can also be opened in the experimental cell at the DNB Cell Limit Amp and 5kV breaker control if necessary (6).

- Next turn off 380VAC Power to DNB by one of the following methods
 - Open C-Mod Cell Distribution Panel A Circuit 10 (9A), or open fused disconnect switch (8) located in cell.
 - A shunt trip breaker circuit is being designed and will be implemented in the future such that the breaker can be opened from a C-Mod control room DNB 380VAC Remote Control Switch (1).
 - The above disconnects 480VAC and 380VAC service from DNB Racks N1-N7.
- 120VAC Power is supplied by F-Port Power Panel circuit 17, readily accessible only in the experimental cell F-Port area.



NOTES:

1. O.E. TIME OVERCURRENT RELAY
 MODEL - 121ACR85A
 TYPE - 1AC CYCLES - 80
 TIME - LONG INSTRUCTIONS - GEI 28918
 AMPS - 2.35 INSTANTANEOUS UNIT - 4-16
2. WESTINGHOUSE
 STYLE - 1879807A
 TYPE - O-3 OVERCURRENT RELAY
 OVERCURRENT UNIT - 5 - 2.5 AMPS
 INDICATOR - 0-2 - 2 AMPS
 INSTANTANEOUS TRIP - 10-40 AMPS
 INSTRUCTION LEAFLET - 41-101
3. G.E. LIMIT AMP CONTROL
 MODEL #GRT194-1M42 CAT #094220870001AD1
 DIAGRAM SCHEMATIC #0982120 SH-3
 INTERRUPTING RATING 350 MVA CLASS E-2
 CONTINUOUS CURRENT RATING 180A RMS 40C
 SHORT BUS CURRENT RATING 1200A RMS
 CONTROL CIRCUIT 115 VOLTS
 POWER CIRCUIT MAX VOLTS 4.6K AC
 LOAD: TYPE XPMR 1000KVA FULL LOAD 138A
 INSTRUCTIONS #GEH-5308 DEF-002 GEH-5308
 GEH-5108
4. G.E. FUSE
 TYPE EI 0-10
 MODEL #F62 DCR200
 MAX KV 3.5 AMP 200
 MAX IC 60KA SYM
 Hz 60 INST GEK-28074
5. LOAD:
 TYPE XPMR 1000 KVA FULL LOAD CURRENT 138A
 INSTRUCTIONS #GEH-5308 DEF-002 GEH-5308
 GEH-5108
6. BUSS/COOPER YELLOW LOW PEAK
 TYPE RK
 MODEL LPB-RK-480SP
 480A 600VAC
7. GOULD SHAWMUT
 TYPE OTS
 MODEL OT8100
 100A 600VAC
8. GOULD SHAWMUT
 TYPE OTS
 MODEL OT890
 30A 600VAC

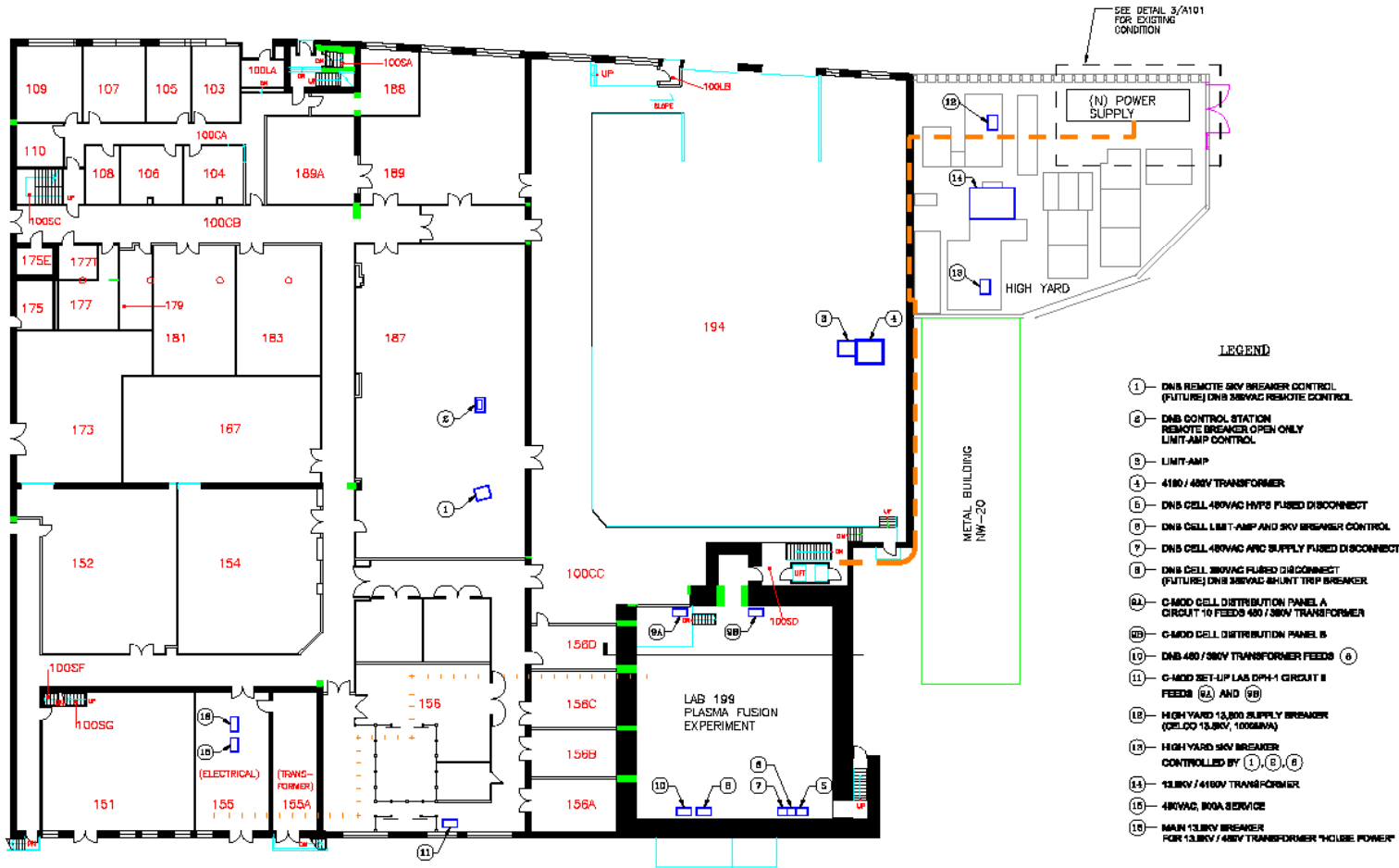
Ⓢ DENOTES CONTROL POINTS & EQUIPMENT LOCATIONS FOR DNB POWER SYSTEM (SEE DNB POWER SYSTEM MAP (DWG: 801-085-000))

ⓈⓈ AUTHORIZED PERSONNEL ONLY

Title: DNB AC POWER SYSTEM ONE-LINE DIAGRAM			
Rev: 0	Drawn Number: 801-085-001	Drawn By: S. GORDON/ L. DUNN	Rev:
		Date: 5/19/88	
		Sheet 1 of 1	

ALBANY ST.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED



USED ON ASSEMBLY	PLASMA FUSION CNTR MASSACHUSETTS INSTITUTE OF TECHNOLOGY		ITEM	PART NO.	DESCRIPTION		QTY.
				DNB POWER SYSTEM MAP			
	TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN	P. LIENARD	DATE	22APR08	DWG NO.
	DECIMALS		CHECKED	D. TERRY	DATE	22APR08	601-085-000
	3 PLACES ±.005	ANGLES: ±0° 15'	APPROVED		DATE		
	7 PLACES ±.010	125° ✓					
	1 PLACE ±0.10	REMOVE ALL BURRS BREAK SHARP EDGES					
		DO NOT SCALE DRAWING					
			CAD FILE	601-085-000	SCALE	NO SCALE	SHEET 1 OF 1