8 | 7 | 6 | 5 | 4 | 3 | 2 | NEXT ASS'Y: 1 FINAL ASS'Y:

GENERAL NOTES:

1. FOR SINGLE LINE DIAGRAM SEE DWGS E2.10.30, E2.10.31 & E2.10.32.

DISTRIBUTION PANEL TA-1DP1 (MEZZ LVL (NORTH))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [X] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [ ] -SURFACE [X] - FREE STAND.
MAINS: 800 A 65,000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 800 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP -G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	125	TA-1T1-75KVA XFMR PNL.TA-1PP1-BEAM LINE 10 TU	66040	40000	WELDING REC-TA-1WR1(FUT) BEAM LINE 10 TU 480V,60A,Single Twistlock	60	2
3	125	TA-1T2-75KVA XFMR PNL.TA-1PP2-BEAM LINE 11A TU (INSTALLED FIRST)	66040	40000	WELDING REC-TA-1WR2 BEAM LINE 11A TU (INSTALLED FIRST)	60	4
5	125	TA-1T3-75KVA XFMR PNL.TA-1PP3-BEAM LINE 11B TU (INSTALLED FIRST)	66040	40000	WELDING REC-TA-1WR3 BEAM LINE 11B TU (INSTALLED FIRST)	60	6
7	125	TA-1T4-75KVA XFMR PNL. TA-1PP4-BEAM LINE 12 TU	66040	40000	WELDING REC-TA-1WR4(FUT) BEAM LINE 12 TU 480V,60A,Single Twistlock	60	8
9	125	TA-1T5-75KVA XFMR PNL. TA-1PP5 BEAM LINE 13 BD	66040	40000	WELDING REC-TA-1WR5(FUT) BEAM LINE 13 BD 480V,60A,Single Twistlock	60	10
11	125	TA-1T6-75KVA XFMR PNL.-TA-1PP6 BEAM LINE 18 BU	66040	40000	WELDING REC-TA-1WR6 BEAM LINE 18 BU 480V,60A,Single Twistlock	60	12
13	60	WELDING REC-TA-1WR13 BEAM LINE 5 TD 480V,60A,Single Twistlock	40000	66040	TA-1T26-75KVA XFMR PNL.TA-1PP13 BEAM LINE 5 TD	125	14
15	–	SPACE	–	–	–	–	16
17	–		–	–	–	–	18

PHASE TOTALS COL. #1: 436240
PHASE TOTALS COL. #2: 306040
PHASE TOTAL VA: 742280
TOTAL CONNECTED 742 KVA 893 AMPS

DISTRIBUTION PANEL TA-1DP2 (MEZZ LVL (SOUTH))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [ ] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [ ] -SURFACE [X] - FREE STAND.
MAINS: 800 A 65,000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 800 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP-G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	125	TA-1T13-75KVA XFMR PNL.TA-1PP7-BEAM LINE 2 TU (INSTALLED FIRST)	66040	40000	WELDING REC-TA-1WR7 BEAM LINE 2 TU (INSTALLED FIRST)	60	2
3	125	TA-1T14-75KVA XFMR PNL. TA-1PP8-BEAM LINE 4A TD (INSTALLED FIRST)	66040	40000	WELDING REC-TA-1WR8 BEAM LINE 4A TD (INSTALLED FIRST)	60	4
5	125	TA-2T15-75KVA XFMR PNL. TA-1PP9-BEAM LINE 4B TD (INSTALLED FIRST)	66040	40000	WELDING REC-TA-1WR9 BEAM LINE 4B TD (INSTALLED FIRST)	60	6
7	125	TA-1T16-75KVA XFMR PNL. TA-1PP10-BEAM LINE 6 TD (INSTALLED FIRST)	66040	40000	WELDING REC-TA-1WR10 BEAM LINE 6 TD (INSTALLED FIRST)	60	8
9	125	TA-1T17 XFMR / PANEL TA-1PP11 BEAM LINE 8A BU (FUTURE)	66040	40000	WELDING REC-TA-1WR11(FUT) BEAM LINE 8A BU 480V,60A,Single Twistlock	60	10
11	125	TA-1T18 XFMR / PANEL TA-1PP12 BEAM LINE 8B BU (FUTURE)	66040	40000	WELDING REC-TA-1WR12(FUT) BEAM LINE 8B BU 480V,60A,Single Twistlock	60	12
13	60	SPARE	–	–	SPACE	–	14
15	–	SPACE	–	–	SPACE	–	16
17	–		–	–	–	–	18

PHASE TOTALS COL. #1: 396240
PHASE TOTALS COL. #2: 240000
PHASE TOTAL VA: 636240
TOTAL CONNECTED 636 KVA 765 AMPS

DISTRIBUTION PANEL TA-1DP3 (MEZZ LVL (NORTH))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [ ] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [ ] -SURFACE [X] - FREE STAND.
MAINS: 400 A 65,000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 400 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP-G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	50	TA-1T7-30KVA XFMR / TA-1CPP1 BEAM LINE 10 TU (FUTURE)	18840	15000	TA-1TUPS1-ISO XFMR 15KVA OUTPUT 120/208V-TA-1UP1	30	2
3	50	TA-1T8-30KVA XFMR / TA-1CPP2 BEAM LINE 11A TU (INSTALLED FIRST)	18840	–	SPARE	30	4
5	50	TA-1T9-30KVA XFMR / TA-1CPP3 BEAM LINE 11B TU (INSTALLED FIRST)	18840	15000	TA-1TUPS2-ISO XFMR 15KVA OUTPUT 120/208V-TA-1UP2	30	6
7	50	TA-1T10-30KVA XFMR / TA-1CPP4 BEAM LINE 12 TU (FUTURE)	18840	–	SPARE	50	8
9	50	TA-1T11-30KVA XFMR / TA-1CPP5 BEAM LINE 13 BD (FUTURE)	18840	–	SPACE		10
11	50	TA-1T12-30KVA XFMR / TA-1CPP6 BEAM LINE 18 BU (INSTALLED FIRST)	18840	–	SPACE		12
13			–	–		–	14
15			–	–		–	16
17	–		–	–	–	–	18

PHASE TOTALS COL. #1: 113040
PHASE TOTALS COL. #2: 30000
PHASE TOTAL VA: 143040
TOTAL CONNECTED 143 KVA 172 AMPS

DISTRIBUTION PANEL TA-1DP4 (MEZZ LVL (SOUTH))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [ ] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [ ] -SURFACE [X] - FREE STAND.
MAINS: 400 A 65,000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 400 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP -G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	50	TA-1T19-30KVA XFMR / TA-1CPP7 BEAM LINE 2 TU (INSTALLED FIRST)	18840	18840	TA-1T22-30KVA XFMR TA-1CPP10-BEAMLINE 6 TD (INSTALLED FIRST)	50	2
3	50	TA-1T20-30KVA XFMR / TA-1CPP8 BEAMLINE 4A TD (INSTALLED FIRST)	18840	18840	TA-1T23-30KVA XFMR TA-1CPP11 BEAM LINE 8A BU (FUTURE)	50	4
5	50	TA-1T21-30KVA XFMR / TA-1CPP9 BEAM LINE 4B TD (INSTALLED FIRST)	18840	18840	TA-1T23-30KVA XFMR TA-1CPP12 BEAM LINE 8B BU (FUTURE)	50	6
7	50	TA-1T21-30KVA XFMR / TA-1CPP13 BEAM LINE 5 TD (INSTALLED FIRST)	18840	–	SPACE	–	8
9	–	–	–	–	–		10
11	–	–	–	–	–		12
13	–	–	–	–	–	–	14
15	–	–	–	–	–	–	16
17	–	–	–	–	–	–	18

PHASE TOTALS COL. #1: 75360
PHASE TOTALS COL. #2: 56520
PHASE TOTAL VA: 131880
TOTAL CONNECTED 132 KVA 159 AMPS

DISTRIBUTION PANEL TA-1DP5 (MEZZ LVL (SOUTH))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [ ] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [ ] -SURFACE [X] - FREE STAND.
MAINS: 400 A 65000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 400 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP-G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	25	TO CHOPPER XXX	15000	15000	TO CHOPPER XXX	25	2
3	25	TO CHOPPER XXX	15000	15000	TO CHOPPER XXX	25	2
5	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	6
7	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	8
9	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	10
11	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	12
13	25	SPARE	–	–	SPARE	20	14
15	–	SPACE	–	15000	TA-1UPS1 TA-1UPS1,480V INPUT (BY PASS)	30	16
17	–	SPACE	–	–	SPACE	–	18

PHASE TOTALS COL. #1: 90000
PHASE TOTALS COL. #2: 105000
PHASE TOTAL VA: 195000
TOTAL CONNECTED 195 KVA 235 AMPS

DISTRIBUTION PANEL TA-1DP6 (MEZZ LVL (NORTH))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [ ] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [ ] -SURFACE [X] - FREE STAND.
MAINS: 400 A 65,000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 400 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP -G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	25	TO CHOPPER XXX	15000	15000	TO CHOPPER XXX	25	2
3	25	TO CHOPPER XXX	15000	15000	TO CHOPPER XXX	25	2
5	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	6
7	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	8
9	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	10
11	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	12
13	25	SPARE	–	–	SPARE	20	14
15	–	SPACE	–		SPACE	30	16
17	–	SPACE	–	–	SPACE	–	18

PHASE TOTALS COL. #1: 90000
PHASE TOTALS COL. #2: 90000
PHASE TOTAL VA: 180000
TOTAL CONNECTED 180 KVA 217 AMPS

DISTRIBUTION PANEL TA-1DP7 ((HIGH BAY))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [ ] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [ ] -SURFACE [X] - FREE STAND.
MAINS: 400 A 65,000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 400 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP-G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	25	TO CHOPPER XXX	15000	15000	TO CHOPPER XXX	25	2
3	25	TO CHOPPER XXX	15000	15000	TO CHOPPER XXX	25	2
5	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	6
7	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	8
9	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	10
11	25	DISK CHOPPER XXX	15000	15000	DISK CHOPPER XXX	25	12
13	25	SPARE	–	–	SPARE	20	14
15	–		–	–	–	–	16
17	–		–	–	–	–	18

PHASE TOTALS COL. #1: 90000
PHASE TOTALS COL. #2: 90000
PHASE TOTAL VA: 180000
TOTAL CONNECTED 180 KVA 217 AMPS

DISTRIBUTION PANEL TA-3DP5A ((DECON AREA MEZZ))

SUPPLY: [ ] - BOTT. [X] - TOP [ ] - LUGS [X] -MAIN BKR. — [ ] - EMRG. [X] -NORMAL. [ ] -TECH. 1
TYPE: [ ] - 3P3W [X] - 3P4W [X] - WITH GRD. BAR — MOUNTING: [X] -SURFACE [ ] - FREE STAND.
MAINS: 225 A 65000 A.I.C. — VOLTAGE: [ ] -120 / 208 [X] -277 / 480 /
ALL BREAKERS ARE 3 POLE UON — 225 A. MAIN BKR. WITH: [ ] - SHUNT TRIP [ ] - ADJ. TRIP-G.F.P.

CKT. NO.	TRIP AMP	USED FOR	COL. #1 VOLT - AMPS	COL. #2 VOLT - AMPS	USED FOR	TRIP AMP	CKT. NO.
1	70	UPPER CRANE	30000	30000	LOWER CRANE	70	2
3	30	MANIPULATER	10000	–	SPARE	50	4
5	–	SPACE	–	–	SPACE	–	6
7		SPACE	–	–	SPACE	–	8
9	–		–	–	–	–	10
11	–		–	–	–	–	12
13	–		–	–	–	–	14
15	–		–	–	–	–	16
17	–		–	–	–	–	18

PHASE TOTALS COL. #1: 40000
PHASE TOTALS COL. #2: 30000
PHASE TOTAL VA: 70000
TOTAL CONNECTED 70 KVA 84 AMPS

KEY SCHEDULE

TA-1DP1	TA-1DP2	TA-1DP3
TA-1DP4	TA-1DP5	TA-1DP6
TA-1DP7	TA-3DP5A	

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THIS DOCUMENT CONTROLLED BY CHANGE CONTROL SYSTEM 3
ENGINEERING PROCEDURE SNS-ENG-G001

REV	CHANGE TYPE	CHANGE CONTROL SYSTEM	CHANGE REQUEST NUMBER	DESCRIPTION	DSN	CHK	DEPT	DATE	PE	DATE	PJ	DATE	REQ	DATE	UTB	DATE	RPE	RPE NO	DATE	ST	CV	EC	EE	EM	IE	M	PD	SE	AR
0				CERTIFIED FOR CONSTRUCTION – 10/26/01	HG	VGS			(signature)	11/15/01	RAD	11/14/01			(signature)	11/14/01	VGS	00106009	10/26/01	REW	–	WRS	AK	WRS	BWJ	–	MP	–	ED

REVISION OR ISSUE PURPOSE — REVISION APPROVALS — SQUAD CHECK

DRAWING APPROVALS: RPE (seal: VICTOR G. STEFFEN, REGISTERED ENGINEER, No. 00106009, STATE OF TENNESSEE, 11-13-01)
DSN H.GROVER 10/26/01
DRW L. MAKOVSKY 10/26/01
CHK V.STEFFEN 10/26/01
DEPT
PE (signature) 11/15/01
PJ (signature) 11/14/01
REQ
UTB (signature) 11/14/01
0 REV. 11-13-01 DATE

108030700-E8E-8700-A187

Knight/Jacobs Joint Venture, 701 Scarboro Road, MS 8253, Oak Ridge, TN 37830, 865-241-9433, fax 865-241-3400
KNIGHT — Knight Advanced Technology, 549 West Randolph Street, Chicago, IL 60661
UT-BATTELLE — Oak Ridge National Laboratory, managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725, UT-BATTELLE, LLC, Oak Ridge, Tennessee

PROJECT NAME: SPALLATION NEUTRON SOURCE

TARGET BUILDING PANEL SCHEDULES SHEET 1

1	48	49	50	PLANT	BLDG	FL	SH.	OF	TYPE	CLASS
3	E	X	X	8	8700		1	1	S	U
51 NC	52 NA			53	WBS 1.8.3.7		E9.21.30			REV 0

AutoCAD