REVISIONS				
REV.	REMARKS	DRAWN	DATE	APPROVED
A	ADDED RELIEF VALVES 65 AND 66	N HUQUE	13AUG18	13AUG18

SHIELD SUPPLY 3.0 ATM 35K
SHIELD RETURN
4.5K SUPPLY 3.0 ATM
2K RETURN
TO GUARD VACUUM HEADER
300K 3.0 ATM HELIUM SUPPLY
COOLDOWN HEADER

CEVCM03_SH
CLVCM0311
CMVCM0314
CMVCM0368
CMVCM0366
CMVCM0313
CMVCM0369
CMVCM0312
CMVCM0365
CMVCM0315
CMVCM0367
CMVCM0312
CMVCM0316
CMVCM0310
CMVCM0313
CMVCM0370
CEVCM03_RT
CMVCM0364
CMVCM0360
CMVCM0371
CFICM0314
CRVCM0366 150 PSIG
CEVCM03_MIX
CLVCM0312
CRVCM0365 150 PSIG
CMVCM0365
CRVCM0364 150 PSIG
CRVCM0361 30 PSIG
CMVCM0366
.75 NPS SCH 5
.75 NPS SCH 5
.75 NPS SCH 5
2.00 NPS SCH 5
CPICM0316 30/30
PI
CRVCM0311 150 PSIG
CRVCM0310 150 PSIG
TRANSFER LINE
CTDCM0374
CTDCM0375
CFICM0313 HOT WIRE ANEMOMETER
FI
CTDCM0372
CTDCM0373
CRVCM0362 38 PSID
LIFT PLATE
CRVCM0361 15 PSID
CRVCM0360 RD SP=43 PSIG

CPICM0211 0-100 TORR
CPICM0212 0-5000 TORR
PT
CRVCM0265 2 PSIG
LIFT PLATE
CPICM0214 0-5000 TORR
TURBO PUMP
ROOTS PUMP
CMVCM0027
CMVCM0272
CMVCM0273
BELLOWS
LCLS-II CRYOMODULE
CPICM0113 0-100 TORR
CPICM0114 0-5000 TORR
CRVCM0166 2 PSIG
LIFT PLATE
CPICM0115 0-5000 TORR
CMVCM0174
CMVCM0175
CMVCM0176
BELLOWS
LCLS-II CRYOMODULE
CRVCM0063 2 PSIG
LIFT PLATE

CCVCM0361
CTDCM0324
CTDCM0325
CEVCM03_12
CLVCM0310
Cv = 3.0
CEVCM03_CD
CLVCM0315
Cv = 3.0
CTDCM0370
CTDCM0371
3.00 NPS SCH 5
2K RETURN (LINE B)
CFICM0312
2K SUPPLY (LINE A)
FI
.75 NPS SCH 5
CTDCM0322
CTDCM0323
CPVCM02_CD2
CLVCM0213
CLLCM0210
LL
CPVCM02_JT2
CLVCM0214
CLLCM0211
CTDCM0120
CTDCM0121
CPVCM01_CD1
CLVCM0111
CLLCM0112
CPVCM01_JT1
CLVCM0112
CLLCM0113
GHRP UPPER TD
RETURN HEADER
GHRP LOWER TD
CTDCM0168
CTDCM0169
GHRP UPPER TD
RETURN HEADER
GHRP LOWER TD
2-PHASE LINE
CAVITY HELIUM VESSELS
COOLDOWN HEATER
2-PHASE LINE
CAVITY HELIUM VESSELS
COOLDOWN HEATER
FARADAY CUP
IFYCM0310
THIN TI WINDOW
FARADAY CUP
IFYCM0060
THIN TI WINDOW
RDCCM0020
VRVCM0060
VIPCM0060
CRVCM0061 RD SP=15PSIG
RDCCM0310
RI
CRYO CAN (DWG NO. JL0049629)
CEVCM03_13
CLVCM0311
Cv = 0.32
CFICM0310
4.5K SUPPLY (LINE D)
CTDCM0310
CTDCM0311
CTDCM0112
CTDCM0113
CTDCM0014
CTDCM0015
4.5K SUPPLY JUMPER
4.5K RETURN (LINE C)
CTDCM0362
CTDCM0363
CTDCM0160
CTDCM0161
CCVCM0311
CRVCM0312 2 PSIG
LIFT PLATE
CTDCM0366
CTDCM0367
CTDCM0164
CTDCM0165
CTDCM0020
CTDCM0021
SHIELD RETURN (LINE E)
SHIELD SUPPLY JUMPER
CFICM0311
CTDCM0316
CTDCM0317
CTDCM0118
CTDCM0119
SHIELD SUPPLY (LINE F)
RETURN END CAP (DWG NO. F10026271)
RI X8
RDCCM0211 - 18
FIBER OPTIC RADIATION SENSOR
RFOCM0219
RI X8
RDCCM0121 - 28
FIBER OPTIC RADIATION SENSOR
RFOCM0119
TOTAL LOSS MONITOR
RICCM0010

LEGEND

MANUAL VALVE
CHECK VALVE
RELIEF VALVE
SOLENOID VALVE
FLOW CONTROL VALVE
RIGHT ANGLE VALVE
CONTROL VALVE PV- PNEUMATIC EV- ELECTRICAL HV- HYDRAULIC
RUPTURE DISC
WINDOW
FLOW METER
REDUCER
CAP
DRAIN/VENT
HOSE CONN
HEATER
FLANGE
FLEX CONN
HEAT EXCHANGER
MULTI PIPE TRANSFER LINES
SHIELD
PRESSURE INDICATOR
RADIATION INDICATOR
SEE ANSI/ISA-S5.1 FOR ADDITIONAL INSTRUMENTATION SYMBOLS & IDENTIFICATION
BAYONET
INSTRUMENT LINES
CONNECTION TO PROCESS
PNEUMATIC SIGNAL
ELECTRIC SIGNAL
LIQUID LEVEL
PRESSURE TRANSDUCER
TURBO PUMP
ROOTS PUMP
ION PUMP
DOUBLE O-RING SEAL

2K CIRCUIT - BLUE
4.5K CIRCUIT - GREEN
SHIELD CIRCUIT - RED
GUARD VACUUM - ORANGE
300K MIX GAS - MAGENTA

DIM & TOL PER ANSI Y14.5
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± 1/64 DECIMAL .XX ± .01 .XXX ± .005 ANGLES ± .5°
MATERIAL
FINISH
DEBURR & BREAK ALL SHARP EDGES UNLESS OTHERWISE NOTED
DO NOT SCALE DRAWING

DRAWN N. HUQUE 11/06/17
CHECKED
APPR/ORIGINATOR
APPROVED
ENGINEER

Thomas Jefferson National Accelerator Facility
OPERATED BY JSA FOR THE UNITED STATES DEPARTMENT OF ENERGY

TITLE
SRF
LCLS-II
TEST STAND
LCLS-II LERF TEST STAND P&ID

SIZE E | CAD I.D. NO. | DRAWING NO. JL0043630 | REV. A
SCALE NONE | SHOWN ON | SHEET 1 OF 1

DWG NO. JLXXXXXXX SH 1 REV. I