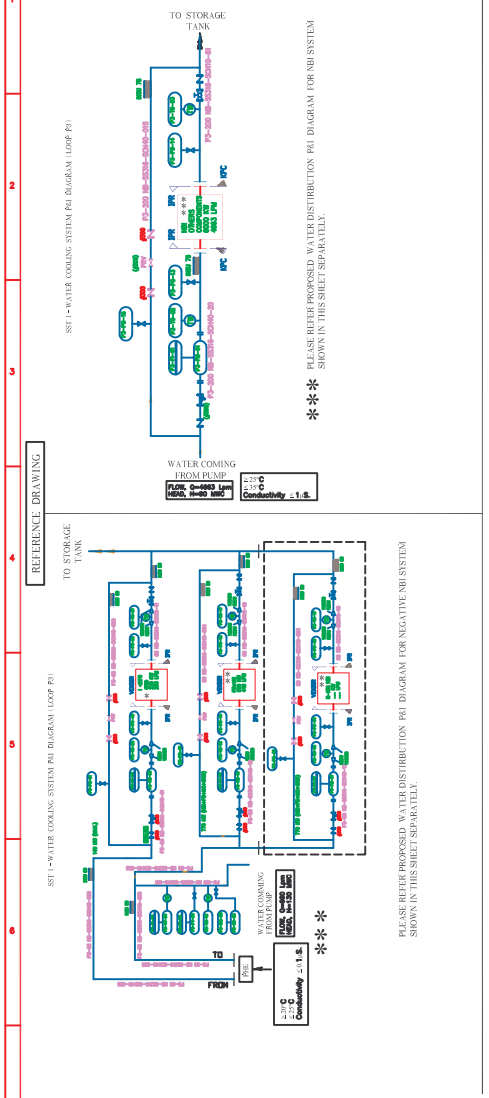
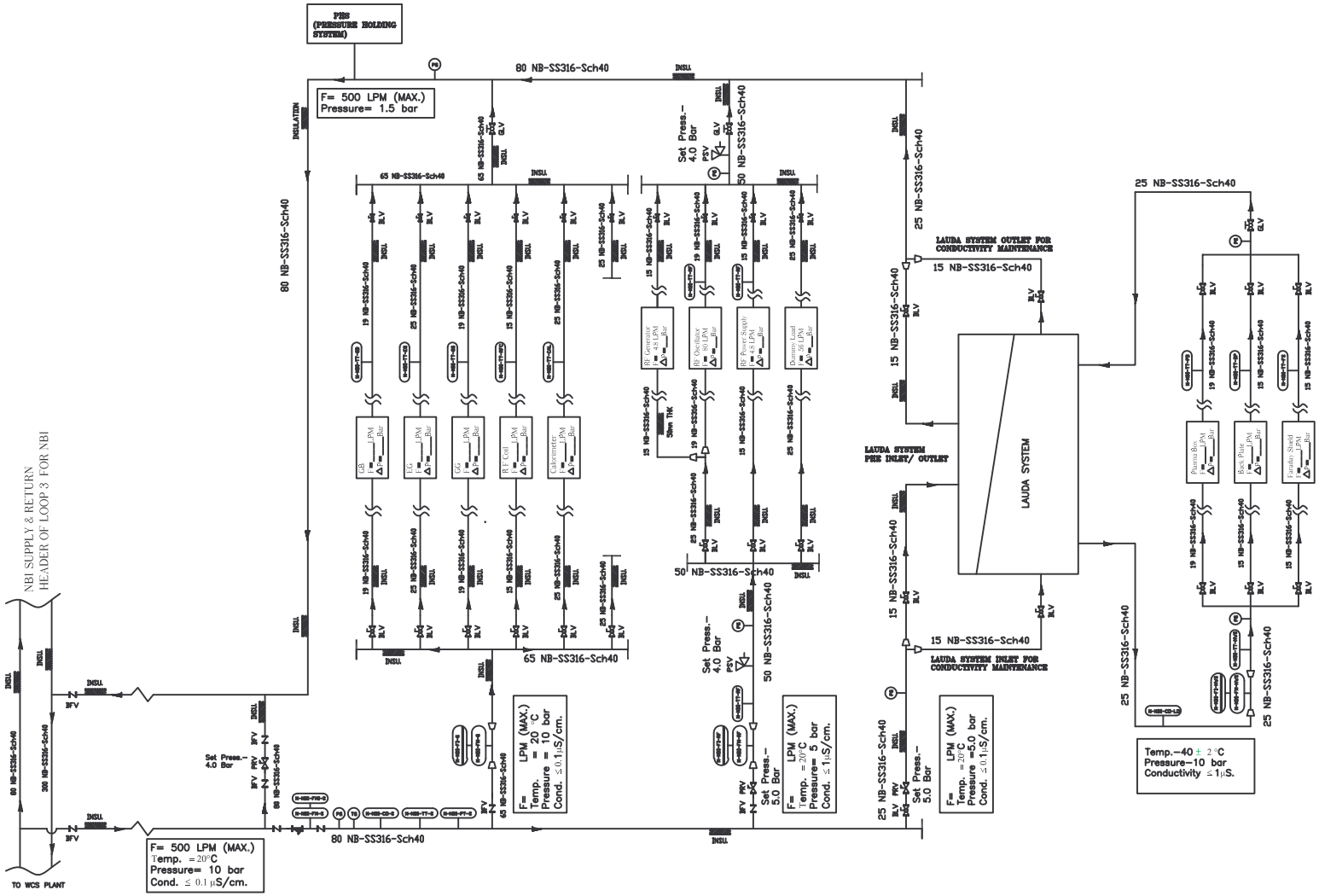
"PROPOSED WATER DISTRIBUTION P&I DIAGRAM FOR NEGATIVE ION NBI SYSTEM"

ACAD F.NAME:

NEGATIVE ION NBI





LEGEND FOR VALVE / INSTRUMENTATION

- CONDUCTIVITY CUM pH METER (CPH)
- BALANCING VALVE
- PRESSURE REDUCING VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- BALL VALVE
- POT STRAINER
- 'Y' TYPE STRAINER
- FIELD MOUNTED
- DACTS MOUNTED
- INTER LOCK
- SOLENOID CUM PNEUMATIC OPERATED GATE VALVE
- EXPANSION / REDUCER
- PRESSURE RELIEF VALVE

TG : DIAL TYPE TEMPERATURE GAUGE
PG : PRESSURE GAUGE
PT : PRESSURE TRANSMITTER
TT : TEMPERATURE TRANSMITTER
CO : CONDUCTIVITY METER
OX : OXYGEN METER
FH : FH METER
FM : FLOW METER
TI : TEMPERATURE INDICATION
PI : PRESSURE INDICATION
CDI : CONDUCTIVITY INDICATION
FI : FLOW INDICATION
F : WATER FLOW

LINE NUMBERING: A-B-C-D-E — LINE SIZE, PIPE MOC, THICKNESS, SERIAL NO.

INSTRUMENT/EQUIPMENT NUMBERING PROCEDURE: X-Y-Z — SYSTEM, INSTRUMENT TYPE, SERIAL NO.

SCOPE OF SUPPLY – 1: VENDOR, SPD, SPR

SCOPE OF SUPPLY – 2: VENDORS SCOPE, SPR SCOPE, VENDORS SCOPE

NOTES-1

1) ALL SS VALVES RATING 150 CLASS, UNLESS SPECIFIED.
2) INSULATION TYPE – ELASTOMERIC NITRILE FOAM.
3) ABOVE 50 NB SS ERW PIPES & FITTINGS.
4) 50 NB & BELOW, SS SEAMLESS PIPES & FITTINGS.
5) TYPE OF CONNECTION (FLANGE / WELDED / SPIGOTED NOSE) AT (—||—)

GB = GRID BOX
EG = EXTRACTOR GRID
SG = GROUND GRID
AG = ACCELERATION GRID
EPS = EXPANDED POLYSTYRENE
EPDM = ETHYLENE PROPYLENE DIENE MONOMER
BLV = BALL VALVE
GLV = GLOBE VALVE
BFV = BUTTER FLY VALVE
PRV = PRESSURE REDUCING VALVE
PSV = PRESSURE SAFETY VALVE

NOTES-2

1) FOR CONDUCTIVITY MAINTAIN, INLET AND OULET VALVE OF LAUDA SYSTEM OPEN MANUALLY
2) WATER VELOCITY IN THE MAIN PIPE LINE: MAINTAINED LESS THAN OR EQUAL TO 2.5 M/S.
3) THE FLOW METER (TRANSMITTER TYPE) SHOULD GIVE LINEAR OUTPUT OF 4–20 mA, LEAST COUNT 1 LPM.
4) PRESSURE REDUCING VALVE SHOULD KEEP THE DOWNSTREAM PRESSURE AS PER THE SET POINT, RESOLUTION BEING 0.2 BAR.
5) ACCURACY OF THE TEMPERATURE / PRESSURE GAUGE SHOULD BE WITHIN (±1%).
6) INSULATION MATERIAL FOR 80 NB PIPES WILL BE EPS MOULDED PIPE SECTION WITH ALUMINIUM CLADING & FOR LESS THAN 80 NB PIPES WILL BE EPDM EXTRUDED PIPE SECTION
7) AIR PURGING TO BE CARRIED OUT BEFORE EVERY START OF THE SYSTEM OPERATION.
8) ALL PRESSURE SHOWN ARE GAUGE PRESSURE.
9) GASKET MATERIAL TEFLON.
10) VENT VALVES AT THE HIGHEST POINTS & DRAIN AT THE LOWEST POINTS SHALL BE PROVIDED

DRG.NO	▽ 8.25	▽▽ 1.6–6	▽▽▽ 0.025–1.6	▽▽▽▽ < 0.025	REVISION COLUMN						ASS'Y GROUP:	INSTITUTE FOR PLASMA RESEARCH
CO-ORDINATED BY					REV	ZONE	DESCRIPTION	DATE	REMARKS	APPROVED BY	ALL DIMENSIONS ARE IN 'mm' UNLESS OTHERWISE STATED	BHAT, GANDHINAGAR-382 428.

MACHINING DEVIATIONS FOR NON-TOLERANCED DIMENSIONS

LENGTH IN mm OF SHORTER SIDE OF ANGLES				LENGTH OR DIA	UPTO 6	6–30	30–120	120–315
UPTO 10	10–50	50–120	OVER 120–400					
±1'	±0'–30'	±0'–20'	±0'–10'		±0.1	±0.2	±0.3	±0.5

SCALE	N.T.S.	DATE	TITLE: P&I DIAGRAM FOR NEGATIVE ION NBI WATER COOLING SYSTEM
DRAWN	S.E.S.	00/00/00	
CHECKED			REF DRG NO: SST 1/WDS/N-NBI/01/R0 — REV
APPROVED			DRG.NO — SHEET 01 OF 01