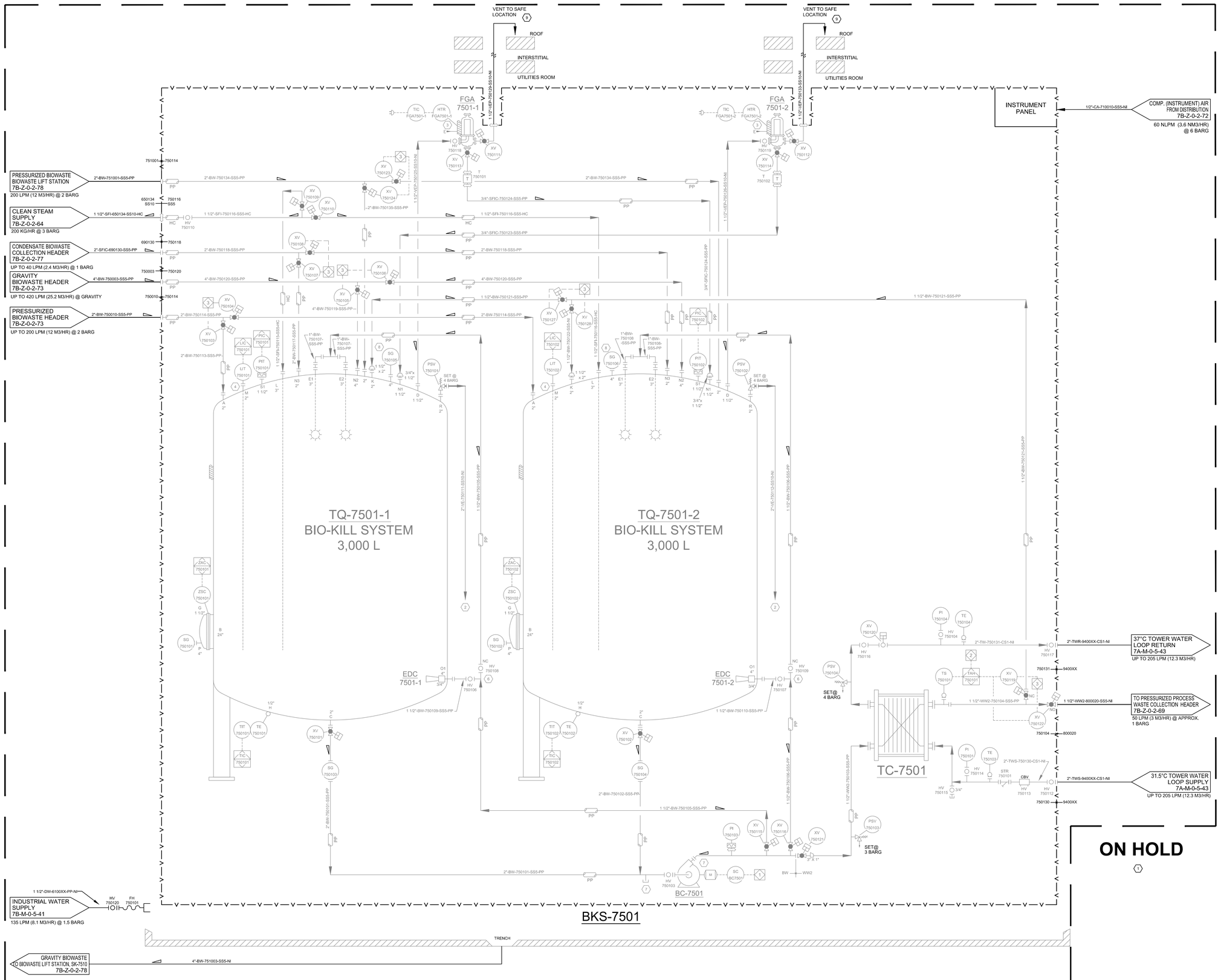

GENERAL NOTES:

1. ALL COMPONENT & EQUIPMENT NUMBERS ARE PRECEDED BY "7B" TO REPRESENT THE BULK DRUG SUBSTANCE (BDS) BUILDING.
2. ALL AUTOMATIC VALVES FAIL CLOSED (F.C.) UNLESS NOTED FAIL OPEN (F.O.).
3. ALL PLC/COMPUTER CONNECTIONS ARE WITHIN THE PCS UNLESS OTHERWISE NOTED.
4. LAST LINE NUMBER: 750133
5. LINE NUMBER NOT USED: NONE
6. LAST AUTO VALVE NUMBER: XV-750122
7. AUTO VALVE NUMBERS NOT USED: NONE
8. LAST MANUAL VALVE NUMBER: 750119
9. MANUAL VALVE NUMBERS NOT USED: HV-750101, 02, 05, 11

SHEET NOTES

1. ON HOLD PENDING DESIGN BY PROCESS WASTE CONTRACTOR.
2. ROUTE RUPTURE DISC PIPING TO SAFE LOCATION 150 MM INCHES ABOVE FINISHED FLOOR.
3. VENDOR SHALL SUPPLY MKS SERIES 48, NEMA 4X FILTER HOUSING HEATER WITH TEMPERATURE CONTROLLER.
4. VENDOR TO SELECT FINAL LEVEL MEASUREMENT TECHNOLOGY. COMPONENTS NEEDS TO BE COMPATIBLE WITH STEAM STERILIZATION TEMPERATURES OF ABOVE 121°C.
5. CIP IS TO BE A MANUAL OPERATION. ONLY COMPLETED FOR ROUTINE MAINTENANCE PURPOSES.
6. PUMP IS TO HAVE TWO OPERATING SET POINTS. ONE FOR RECIRCULATION THROUGH EDUCTORS AND ONE FOR DRAINING THE TANK THROUGH THE HEAT EXCHANGER.
7. CAPPED HOSE CONNECTION FOR TANK RINSE DURING MAINTENANCE.
8. PROVIDE WATCH LIGHT TO SIGHT GLASSES ON TOP OF THE TANKS.
9. VENT TO A SAFE LOCATION. PROVIDE SCREENING ON THE VENT DISCHARGE.

INTERLOCKS

ON BURST DISC INDICATION XA-XXXXX OR LOW LOW LEVEL LALL-XXXXX, PUMP IS STOPPED (IF RUNNING) AND AUTOMATED START IS DISABLED.

IF WASTE TARGET TEMPERATURE IS NOT REACHED AT THE OUTLET OF THE HEAT EXCHANGER, FLOW IS DIVERTED BACK TO THE TREATMENT TANK.

INTERLOCK TO PREVENT THE TWO VALVES OPEN AT THE SAME TIME.

ips
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REVISION	DATE	DESCRIPTION	BY
A	28AUG2020	90% BD ISSUE	JJR
B	27NOV2020	DESIGN ISSUE	JJR
C	12FEB2021	30% DD ISSUE	RLD
D	12AUG2021	90% DD ISSUE	RLD
0	09SEP2021	CONSTRUCTION ISSUE	RLD

TESSLER engenharia
R. Dr. Cesário Mota Júnior, 424 - Vila Buarque, São Paulo - SP, 01221-020

REVISION HISTORY

1 REV. 0 - NONE.

BKS-7501
BIO-KILL SYSTEM
TYPE: DIRECT STEAM INJECTION BATCH CONTINUOUS
SIZE: XXXXMM W X XXXXMM L
MOC: 304SS FRAME

TQ-7501-1
BIO-KILL TANK
TYPE: VERTICAL
CAPACITY: 3,000 L
SIZE: 1524mm ID X 3149mm OVH
MOC: 304L SS
DP/DT: 4 BARG & F.V.

FGA-7501-1
VENT FILTER
TYPE: IN-LINE, HYDROPHOBIC
FLOW: 130 SLPM @ 0.01 BARD
SIZE:1 RND. X 10" CARTRIDGE
MOC: 316L SS HSG., PTFE ELEM.
RATING: 0.2 µM
ELEC: 220V / 60HZ / 1PH, 2.4A

TQ-7501-2
BIO-KILL TANK
TYPE: VERTICAL
CAPACITY: 3,000 L
SIZE: 1524mm ID X 3149mm OVH
MOC: 304L SS
DP/DT: 4 BARG & F.V.

FGA-7501-2
VENT FILTER
TYPE: IN-LINE, HYDROPHOBIC
FLOW: 130 SLPM @ 0.01 BARD
SIZE:1 RND. X 10" CARTRIDGE
MOC: 316L SS HSG., PTFE ELEM.
RATING: 0.2 µM
ELEC: 220V / 60HZ / 1PH, 2.4A

BC-7501
BIO-KILL CIRCULATION PUMP
TYPE: CENTRIFUGAL
CAPACITY: 50 - 125 LPM @ 4 BARG
SIZE: TBD
MOC: 316L SS
ELEC: 380V / 60HZ / 3PH, 7.5 KW

TC-7501
BIO-KILL OUTLET COOLER
TYPE: WIDE-GAP PLATE & FRAME HEAT EXCHANGER
CAPACITY: COOL, 50 LPM @ 22.5°C ΔT
DESIGN BASIS: FLASH TANK TO 100°C, COOL FROM 100°C TO 45°C IN 2 HRS
MOC: FRAME/PLATES/GASKET: PAINTED STEEL / 316SS / EPDM
DP/DT: 10 BARG / 160°C
AREA: TBD SQ. M

EDC-7501-1
TANK MIXING EDUCTOR
TYPE: INDUSTRIAL, IMMERSED
CAPACITY: UP TO 125 LPM @ 4 BARG
SIZE: 3/4" INLET
MOC: 316SS
DP: UP TO 4 BARG
DESIGN BASIS: 10 TANK TURNOVERS / HR

EDC-7501-2
TANK MIXING EDUCTOR
TYPE: INDUSTRIAL, IMMERSED
CAPACITY: UP TO 125 LPM @ 4 BARG
SIZE: 3/4" INLET
MOC: 316SS
DP: UP TO 4 BARG
DESIGN BASIS: 10 TANK TURNOVERS / HR

Robert L. DeSimoni Jr.

ISSUED FOR CONSTRUCTION

SEAL

THIS IS NOT A SEALED DOCUMENT

DATE:

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CLIENT

Takeda
Hemobrás
Empresa brasileira de hemoderivados e biotecnologia

BURITI EPCMV

DRAWING TITLE

P&I DIAGRAM
DRUG SUBSTANCE
BIO-KILL SYSTEM
BKS-7501

ENGINEER	ARCHITECT	DESIGNER	IPS PROJECT #
JJR	BJE	BRB	ITD19439.01
DRAWN BY	REVIEWED BY	SCALE	CADD FILE NAME
BRB	GJC	NONE	7B-Z-0-2-76

XREF FILE(S)

DRAWING NUMBER

7B-Z-0-2-76

ipsdb.com:sites\PSP\Projects\2019\19439\B_DESIGN\B.10 Project Drawings\Process\7B-B202\7B-Z-0-2-76.dwg 9/07/21 10:49:55 AM JDurm