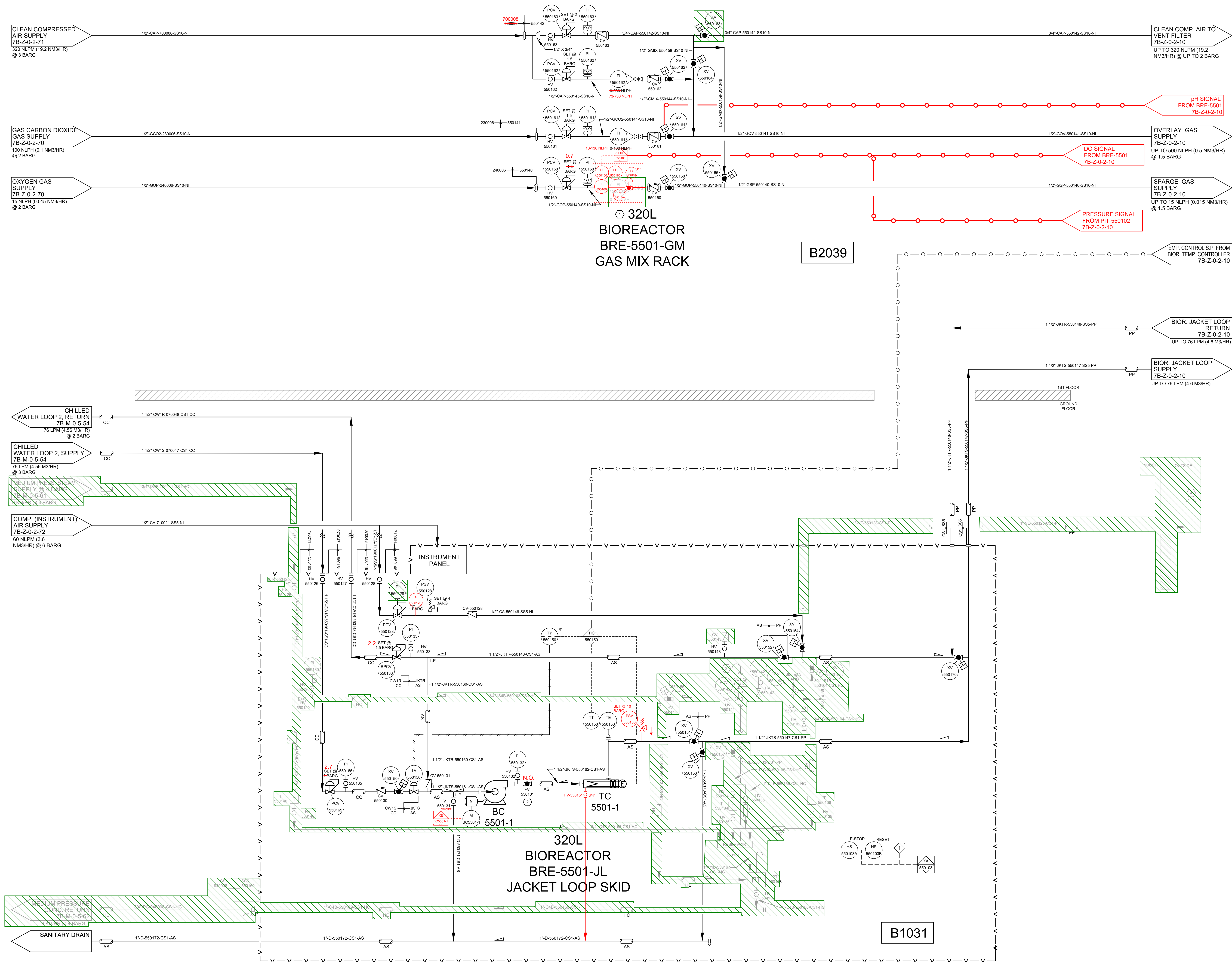


\\ipsdb.corp\sales\PSA\Projects\2018\18439\B. DESIGNS\10 Project Drawings\Process\7B-BDS\7B-Z-0-2-11.dwg 8-10-21 08:11:36 PM mmolain



BRE-5501-JL
BIOREACTOR JKT LOOP SKID
TYPE: CLOSED LOOP HEAT / OPEN LOOP COOL
FLOW: 76 LPM
SIZE: TBD
MOC: CARBON STEEL FRAME
POWER: 3/60/380VAC

BRE-5501-GM
BIOREACTOR GAS-MIX MANIFOLD
TYPE: MANUAL PIPING RACK
CAPACITY: 76 LPM / 1.2 bar gP
SIZE: TBD
MOC: 316/316LSS
TYPE: PIPING RACK

BC-5501-1
JACKET LOOP RECIRC. PUMP
TYPE: INLINE CIRCULATOR
CAPACITY: 76 LPM / 1.2 bar gP
MANUF/MODEL: TBD
MOC: CARBON STEEL WETTED PARTS
POWER: 3/60/380VAC

TC-5501-1
JACKET LOOP HEATER
TYPE: INDUSTRIAL, INLINE HEATER
DUTY: 12 kW
FLOW: 76 LPM
MOC: CARBON STEEL
POWER: 1/60/220VAC

Update make/models

ISSUED FOR
CONSTRUCTION

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.).
3 ALL PLC/COMPUTER CONNECTIONS ARE WITHIN THE PCS UNLESS OTHERWISE NOTED.
4 LAST LINE NUMBER.
5 LINE NUMBER NOT USED.
6 REFER TO P&ID 7B-Z-0-2-10 FOR DETAILS.
7 REFER TO P&ID 7B-Z-0-2-10 FOR DETAILS.
8 REFER TO P&ID 7B-Z-0-2-10 FOR DETAILS.
9 REFER TO P&ID 7B-Z-0-2-10 FOR DETAILS.
10 REFER TO P&ID 7B-Z-0-2-10 FOR DETAILS.

SHEET NOTES
1 GAS MIX RACK, BRE-5501-FM, TO BE INSTALLED ON THE 1ST FLOOR PLATFORM ADJACENT TO THE BIOREACTOR VESSEL.
2 ADJUST MANUAL FLOW CONTROL VALVE FV-550101 TO PREVENT JACKET RELIEF VALVE PSV-550101 FROM OPENING DURING NORMAL OPERATION.
3 CONDENSATE RECOVERY/VENT SHALL BE FITTED HIGHER THAN VALVE XV-540165. DELETED.
4 VENT TO SAFE LOCATION OUTSIDE. DELETED.
INTERLOCKS
1 SAFETY INTERLOCK - E-STOP ACTIVATION REMOVES AIR TO ALL ACTUATED VALVES AND DE-ENERGIZES ALL MOTORS (HARDWIRED).

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IPS Professional Engineers and Architects, LLC.

| REVISION | DATE | DESCRIPTION | BY |
|----------|-----------|--------------------|-----|
| A | 01JUL2020 | 90% BD ISSUE | JJR |
| B | 28AUG2020 | 90% BD ISSUE | JJR |
| C | 27NOV2020 | DESIGN ISSUE | JJR |
| D | 18DEC2020 | DESIGN ISSUE | JJR |
| E | 12FEB2021 | 30% DD ISSUE | RDL |
| F | 19MAY2021 | BD ISSUE | RDL |
| G | 09JUL2021 | 90% DD ISSUE | RDL |
| H | 30AUG2021 | CONSTRUCTION ISSUE | RDL |

DRAFT
INTERIM P&ID REDLINES
13JUL2022



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

REVISION HISTORY

1 REV. 0 - ADDED CV-550128.

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CLIENT
Takeda
Hemobrás
BURI TI EPCMV

DRAWING TITLE
P&I DIAGRAM
DRUG SUBSTANCE
320L BIOREACTOR, BRE-5501
GAS MIX RACK & JKT LOOP

| | | | |
|-----------------|--------------------|-----------------|-------------------------------|
| ENGINEER JJR | ARCHITECT BJE | DESIGNER JJR | IPS PROJECT # ITD19439.01 |
| DRAWN BY LG | REVIEWED BY GJC | SCALE NONE | CADD FILE NAME 7B-Z-0-2-11 |

| | |
|-------------------------------|--------------------------------------|
| REVISION 0 A VERSION | DRAWING NUMBER 7B-Z-0-2-11 |
|-------------------------------|--------------------------------------|

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SEALED DOCUMENT
DATE: _____