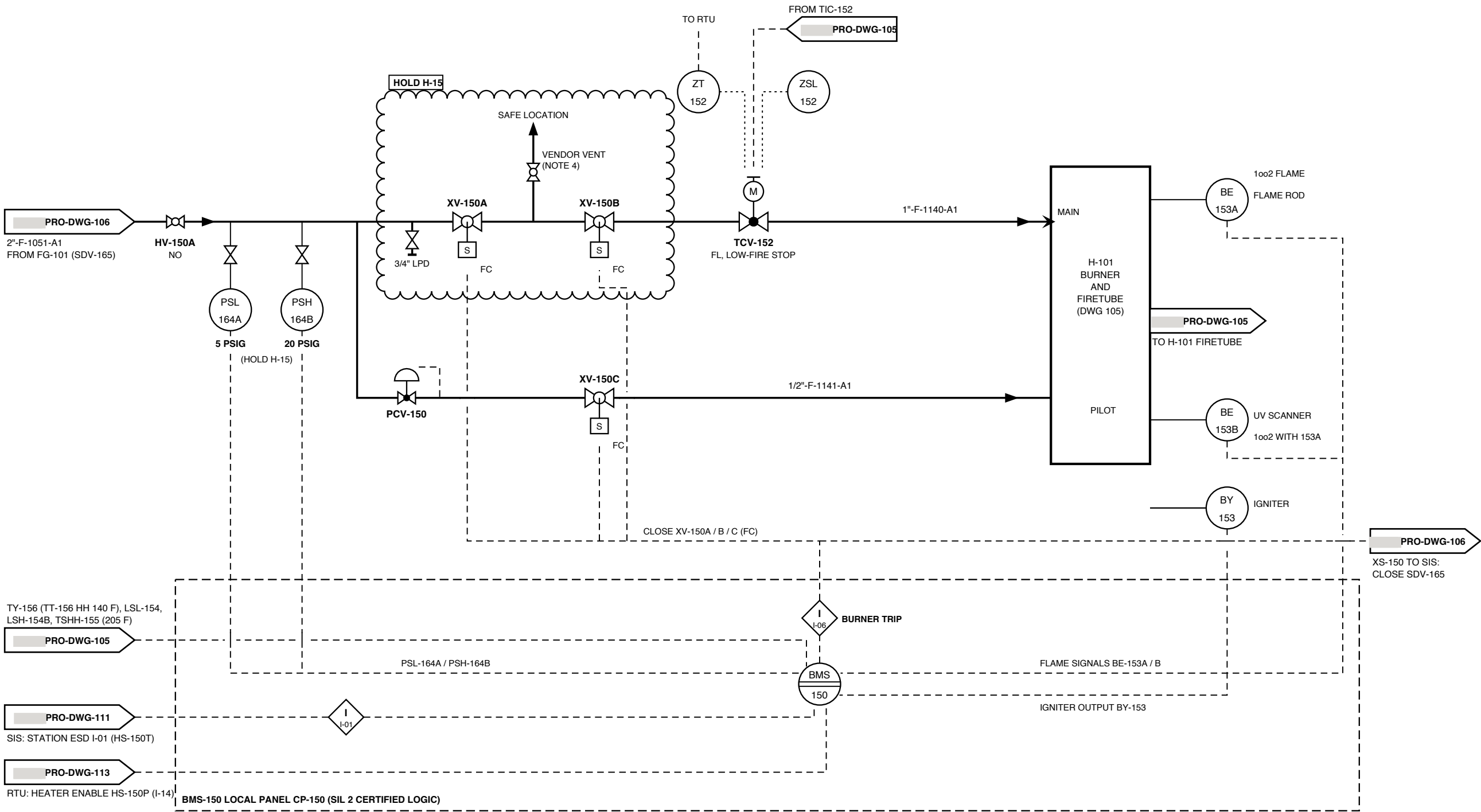


BMS-150
BURNER MANAGEMENT SYSTEM
SIL 2 CERTIFIED BMS (SIF-05 FLAME, SIF-06 LOW BATH LEVEL, SIF-07 HIGH BATH TEMP)
LOCAL PANEL CP-150 AT H-101, CLASS I DIV 2; PURGE, IGNITION, LOW-FIRE START
PER API RP 556 GUIDANCE AND API 12K

XV-150A / XV-150B / XV-150C
BURNER SAFETY SHUTOFF VALVES
MAIN: DOUBLE BLOCK, SOLENOID, FAIL CLOSED, PROOF OF CLOSURE
PILOT: SINGLE SSOV, FAIL CLOSED
NO NATURAL-GAS PNEUMATIC DEVICES (BASIS 7)

TCV-152
BURNER FIRING-RATE VALVE
ELECTRIC MODULATING, LOW-FIRE STOP
ZSL-152 LOW-FIRE START PERMISSIVE
FIRING RATE 6.0 MMBTU/H MAX

- NOTES**
- FUEL SUPPLY 2"-F-1051-A1 FROM FG-101. SDV-165 (DWG 106) IS THE UPSTREAM SIS SHUTOFF; IT CLOSSES ON STATION ESD (I-01) AND ON A BMS TRIP THROUGH XS-150.
 - BMS-150 TRIPS (I-06) ON: FLAME FAILURE BE-153A OR BE-153B (1002, FFRT 4 S MAX, SIF-05); LSL-154 LOW BATH LEVEL (SIF-06); TSHH-155 205 F (SIF-07); LSH-154B COIL LEAK; TT-156 GAS OUTLET HIGH-HIGH 140 F VIA TY-156; PSL-164A / PSH-164B; STATION ESD; BMS FAULT. TRIP CLOSSES XV-150A / B / C AND CUTS BY-153. MANUAL RESET, RE-PURGE.
 - START PERMISSIVES: PROOF OF CLOSURE ON XV-150A / B, ZSL-152 AT LOW FIRE, HS-150P ENABLE FROM RTU (I-14), NO SIS TRIP LATCHED.
 - VENT BETWEEN XV-150A AND XV-150B IS PER THE BMS VENDOR (NORMALLY CLOSED OR OMITTED WITH VALVE PROVING), PIPED TO A SAFE LOCATION (HOLD H-15). PSL-164A / PSH-164B SETPOINTS ARE TYPICAL (HOLD H-15).
 - BE-153A AND BE-153B ARE DIVERSE (FLAME ROD AND SELF-CHECKING UV). THE HEATER-AREA FIRE DETECTOR BE-213 IS ON DWG 111 AND DOES NOT VIEW THE BURNER.
 - TCV-152 IS THE FIRING-RATE VALVE (TIC-152, DWG 105), NOT A SAFETY SHUTOFF. IT GOES TO LOW FIRE ON A TRIP.



NOTES / REFERENCES
REF: PRO-DWG-100 SH 1-2 (LEGEND)
REF: PRO-DWG-105 (H-101)
REF: INS-LST-004 SECTION 5 (BMS CAUSE AND EFFECT)
REF: API RP 556, API 12K

REVISIONS				
REV	DATE	DESCRIPTION	BY	CHK APP
A	2026-09-29	ISSUED FOR REVIEW (IFR)		
PRELIMINARY - ISSUED FOR REVIEW - NOT FOR CONSTRUCTION				

ENGINEER OF RECORD SEAL

NOT SEALED
PRELIMINARY

PE NO. _____

PROJECT

120 MMSCFD RECEIPT INTO _____
COUNTY, _____

DISCIPLINE: PROCESS
SCALE: NTS

P&ID H-101 BURNER AND BMS
FUEL TRAIN, FLAME DETECTION, BMS-150

DRAWN: _____ CHECKED: _____ APPROVED: _____

DWG NO.
PRO-DWG-112

SHEET 1 OF 1 REV A