

FUEL GAS SKID

E-161

FUEL GAS PREHEATER (NOTE 3)

PSV-161

FUEL GAS LOW-PRESSURE RELIEF

SDV-165

FUEL GAS SHUTOFF, HEATER SUPPLY

NPS 1 CL 150 BALL, ELECTRO-HYDRAULIC
SPRING-RETURN, FAIL CLOSED (FC)

NOTES

1. FUEL GAS IS TAKEN FROM LINE 1003 DOWNSTREAM OF (V-110) AND UPSTREAM OF THE CUSTODY METERS (BASIS 8.2). FT-163 MEASURES ALL STATION FUEL FOR OWNER ALLOCATION.
2. SPEC BREAK A6 / A1 AT PCV-161 OUTLET. NO BLOCK VALVE BETWEEN PCV-161 AND PSV-161. PSV-161 SET 250 PSIG, SIZED FOR PCV-161 WIDE-OPEN FAILURE. OUTLET 2"-V-1077-S1 WITH SPEC BREAK A1 / S1 AT THE PSV OUTLET.
3. E-161: 5 KW RATED, EXPLOSION PROOF. TIC-161A HOLDS 105 F, WHICH KEEPS THE PCV-161 OUTLET AT OR ABOVE 40 F IN CASE C7 (NEEDS 102.7 F) AND THE PCV-162 OUTLET AT OR ABOVE 20 F. TSH-161B CUTS OUT THE ELEMENT (MANUAL RESET, ALARM TO RTU); XA-161 COMMON ALARM TO RTU. RESTART TIME-DELAY RELAY ON G-101. VENDOR DATA HOLD H-15.
4. LINE 1051 IS NPS 2 AND 1052 STAYS NPS 1. PCV-162 OUTLET PRESSURE TO SUIT H-101 BURNER TRAIN AND G-101 VENDOR DATA (HOLD H-15).
5. SDV-165 IS ON THE H-101 BRANCH ONLY. THE SIS CLOSSES IT ON STATION ESD (I-101) AND ON A BMS TRIP VIA XS-150 (I-06). ZSC-165 TO SIS; LOCAL RESET HS-165 AFTER THE BMS IS RESET. THE G-101 BRANCH STAYS LIVE AFTER AN ESD; G-101 HAS ITS OWN VENDOR SHUTOFF.
6. REGULATOR DIAPHRAGM VENTS AND E-161 ENCLOSURE BREATHERS ARE PIPED TO A SAFE LOCATION OUTSIDE THE SKID, AWAY FROM IGNITION SOURCES AND AIR INTAKES.
7. PCV-161 AND PCV-162 ARE SELF-CONTAINED SPRING-LOADED REGULATORS WITH NO GAS BLEED TO ATMOSPHERE (BASIS SECTION 13).
8. VENT AND DRAIN CONNECTIONS 3/4 IN WITH VALVE AND PLUG, NORMALLY CLOSED. HPV / LPD FOR HYDROTEST. A6 AND A1 SECTIONS ARE TESTED SEPARATELY.



CASE	COMPOSITION	INLET PSIG	INLET F	OUTLET F @ 150 PSIG
C1	DESIGN	1,140	45	-31.7 (BELOW -20 F MDMT)
C2	DESIGN	1,048	70	7.0
C3	DESIGN	998	60	-2.5
C4	DESIGN	1,090	120	68.1
C5	DESIGN	890	60	5.9
C6	DESIGN	1,140	45	-31.7 (BELOW -20 F MDMT)
C7	RICH	1,090	60	-12.8

INLET = STATION INLET LESS V-101 DIRTY DP (10 PSI). CASES C2 AND C3 CLEAN DP (2 PSI). BASIS SECTION 6 CASES.

INTERLOCKS ON THIS SHEET (INS-LST-004, LOGIC ON PRO-DWG-111):
I-01 STATION ESD: CLOSE SDV-165. I-06 H-101 BMS TRIP: SIS CLOSES SDV-165 (VIA XS-150).

NOTES / REFERENCES

REF: PRO-DWG-100 SH 1-2 (LEGEND)
REF: INS-LST-004 (CAUSE AND EFFECT)
REF: GEN-DB-001 SECTIONS 7, 8.2, 9

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 _____

_____, _____

DISCIPLINE: PROCESS
SCALE: NTS

P&ID FUEL GAS SKID FG-101

FUEL GAS CONDITIONING AND DISTRIBUTION

DRAWN: _____ CHECKED: _____ APPROVED: _____

DWG NO.

PRO-DWG-106

SHEET 1 OF 1 REV A