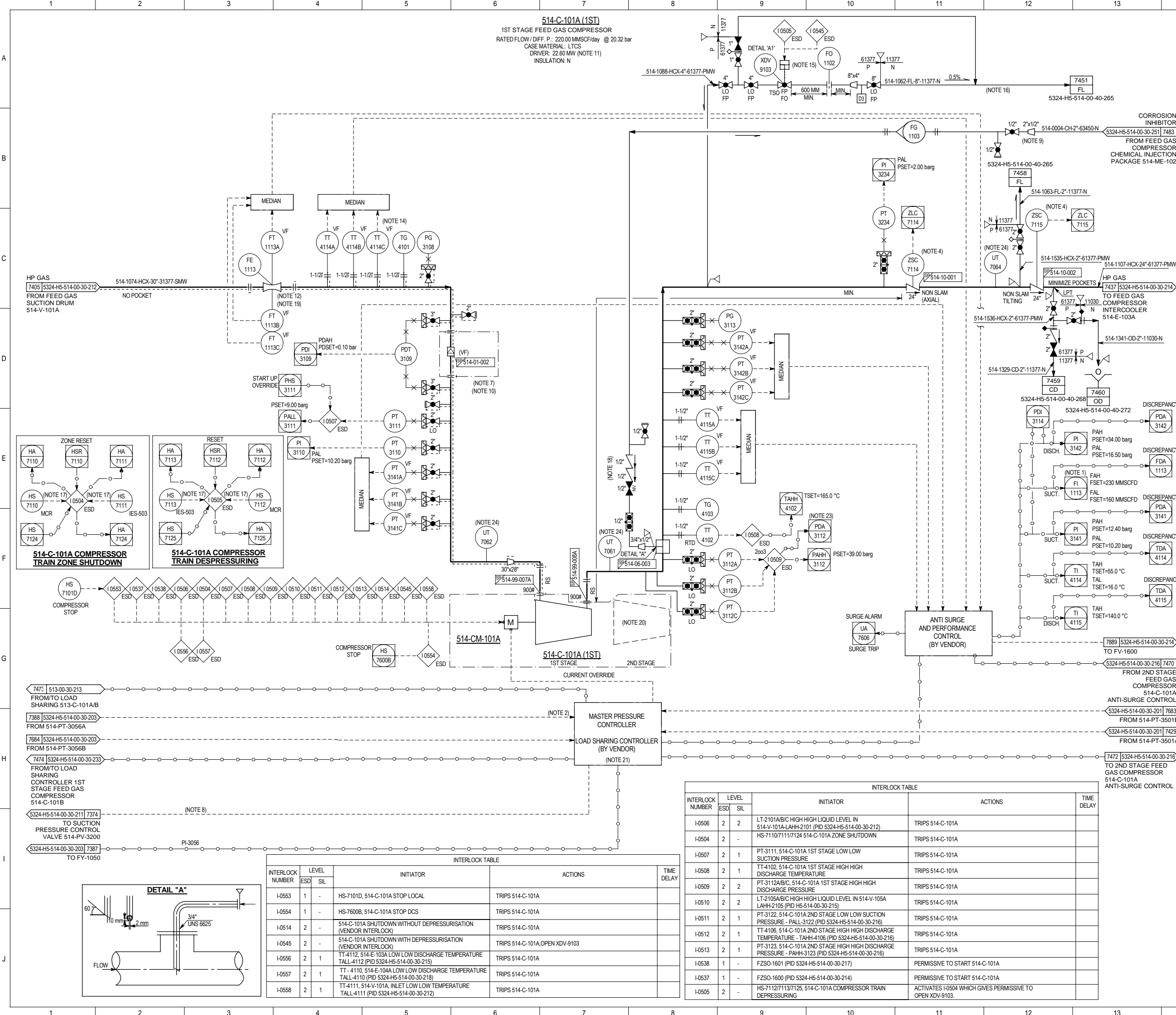


NOTICE: THIS DRAWING AND THE INFORMATION IT CONTAINS IS THE SOLE PROPERTY OF ADNOC GAS PROCESSING. IT SHALL NOT BE REPRODUCED OR LENT WITHOUT THE AGREEMENT OF THE OWNER



**GENERAL NOTES**

- FOR STANDARD SYMBOLS, DETAILS, GENERAL NOTES & LEGEND SHEETS REFER TO DRAWINGS 5324-G-500-00-30-101 TO 241.
- ALL INSTRUMENT TAG NUMBERS ON THIS P&ID INCLUDING PACKAGE UNITS ARE PREFIXED WITH UNIT NUMBER 514 UNLESS OTHERWISE NOTED.
- ALL INSTRUMENT SIGNALS SHALL TERMINATE IN IES-509 UNLESS SHOWN OTHERWISE.
- INTERLOCK TABLE IS FOR REFERENCE ONLY. CAUSE AND EFFECT CHART SHALL GOVERN.

**NOTES**

- FI-1113 TO BE PRESSURE/TEMPERATURE COMPENSATED.
- LOAD SHARING AMONG THE NEW MACHINES WILL BE GIVEN PRIORITY OVER EXISTING MACHINE.
- DELETED.
- POSITION SWITCH BY CHECK VALVE VENDOR.
- TRAIN B IS A DUPLICATE OF TRAIN A EXCEPT WHERE NOTED OTHERWISE.
- DELETED.
- ONLY FILTER ELEMENT BY COMPRESSOR VENDOR
- PERFORMANCE CONTROLLER WILL REGULATE SUCTION PRESSURE BY THROTTLING SUCTION PRESSURE CONTROL VALVE (PV-3200, PID: 5324-H5-514-00-30-211) TO PREVENT COMPRESSOR OVERLOAD.
- REDUCER TO BE LOCATED CLOSE TO INJECTION POINT AND 2 INCH PIPE IS APPLIED TO THE LINES ON PIPE RACK
- TEMPORARY STRAINER FOR START-UP/COMMISSIONING. STRAINER SHALL BE REMOVED AFTER WARRANTY SHUTDOWN. FB ORIFICE OR SPOOL WILL BE PROVIDED AFTER REMOVING STRAINER BY CONTRACTOR.
- POWER INDICATED IS FOR BOTH STAGES.
- ENSURE STRAIGHT LENGTH REQUIREMENT FOR FE-1113 IS AS PER ISO 5167.
- DELETED.
- ALL INSTRUMENTS SHOWN AS "VF" (VENDOR FURNISHED) SHALL BE LOOSE SUPPLIED BY COMPRESSOR VENDOR.
- FOR XDV DETAILS, SEE DETAIL 'A1' ON P&ID 5324-G-500-00-30-109.
- ALL CONNECTIONS TO FLARE HEADER AT TOP OF PIPE AND STAB IN AT 45° IN DIRECTION OF FLOW.
- PUSH BUTTONS HAVE TWO INPUT SIGNAL TO ESD WITH ONE-OUT-OF-TWO VOTING.
- PROVIDE TWO DISSIMILAR NR.V.
- PROCESS VARIABLE TO BE REPEATED IN DCS TO SHOW THE ACTUAL FLOWRATE (MMSCFD) IN HMI (HUMAN MACHINE INTERFACE - FOR OPERATOR ACCESS).
- MOTOR IS COMMON FOR 1st AND 2nd STAGE COMPRESSOR. BOTH STAGES ARE IN SINGLE CASING
- BASIC COMPRESSOR 514-C-101A CONTROL IS VIA SUCTION PRESSURE CONTROL VALVE PV-3200 WITH DISCHARGE PRESSURE AND MOTOR CURRENT OVERRIDE ACTING ON IT. FLOW OVERRIDE IS ALSO PART OF CONTROL SCHEME WHICH WILL NOT ALLOW COMPRESSOR TO DRAW MORE THAN 220 MMSCFD. FOR DETAILS REFER VENDOR CONTROL NARRATIVE.
- DELETED.
- TWO OUT OF THREE VOTING TO HAVE DISCREPANCY ALARM IN DCS.
- CORROSION MONITORING SHALL BE CARRIED OUT BY NON-INTRUSIVE NON-EXTRACTIVE CORROSION MONITORING METHOD USING UT WIRELESS HART SENSOR.

**AS-BUILT**

REV	DATE	DESCRIPTION	DRAWN	CHKD	APPRD
2	29/04/2022	AS BUILT			
1	22/03/2021	RE-ISSUED FOR CONSTRUCTION			
0	29/06/2020	ISSUED FOR CONSTRUCTION			
B	15/04/2020	ISSUED FOR CLIENT REVIEW			
A	10/03/2020	ISSUED FOR CONSTRUCTION			

**PROJECT TITLE**

HABSHAN - 5  
DE-BOTTLENECKING FOR ASSOCIATED GAS  
- EPC WORK

**DRAWING TITLE**

PIPING AND INSTRUMENT DIAGRAM  
UNIT 514 - FEED GAS COMPRESSOR  
COMPRESSOR 1ST STAGE (TRAIN A)

UNIT: 514	PLANT: HABSHAN 5	DOC. CLASS: 1 - 2
CONTR. PROJ. No: 082083C	CONT. DWG. No: 082083C-514-PID-0021-007	
ADNOC GAS PROCESSING PROJ. No: 5324	ADNOC GAS PROCESSING DWG. No: 5324-H5-514-00-30-213	

SHEET: 1 OF 1	REV: 2
---------------	--------

INTERLOCK TABLE						
INTERLOCK NUMBER	LEVEL	ESD	SIL	INITIATOR	ACTIONS	TIME DELAY
I-0506	2	2		LT-2101A/B/C HIGH HIGH LIQUID LEVEL IN 514-V-101A-LAHH-2101 (PID 5324-H5-514-00-30-212)	TRIPS 514-C-101A	
I-0504	2	-		HS-7110/7111/7124 514-C-101A ZONE SHUTDOWN	TRIPS 514-C-101A	
I-0507	2	1		PT-3111, 514-C-101A 1ST STAGE LOW LOW SUCTION PRESSURE	TRIPS 514-C-101A	
I-0508	2	1		TT-4102, 514-C-101A 1ST STAGE HIGH HIGH DISCHARGE TEMPERATURE	TRIPS 514-C-101A	
I-0509	2	2		PT-3112A/B/C, 514-C-101A 1ST STAGE HIGH HIGH DISCHARGE PRESSURE	TRIPS 514-C-101A	
I-0510	2	2		LT-2105A/B/C HIGH HIGH LIQUID LEVEL IN 514-V-105A LAHH-2105 (PID 514-00-30-215)	TRIPS 514-C-101A	
I-0511	2	1		PT-3122, 514-C-101A 2ND STAGE LOW LOW SUCTION PRESSURE - PALL-3122 (PID 5324-H5-514-00-30-216)	TRIPS 514-C-101A	
I-0512	2	1		TT-4106, 514-C-101A 2ND STAGE HIGH HIGH DISCHARGE TEMPERATURE - TAAH-4106 (PID 5324-H5-514-00-30-216)	TRIPS 514-C-101A	
I-0513	2	1		PT-3123, 514-C-101A 2ND STAGE HIGH HIGH DISCHARGE PRESSURE - PAHH-3123 (PID 5324-H5-514-00-30-216)	TRIPS 514-C-101A	
I-0538	1	-		FZSO-1601 (PID 5324-H5-514-00-30-217)	PERMISSIVE TO START 514-C-101A	
I-0537	1	-		FZSO-1600 (PID 5324-H5-514-00-30-214)	PERMISSIVE TO START 514-C-101A	
I-0505	2	-		HS-7112/7113/7125, 514-C-101A COMPRESSOR TRAIN DEPRESSURING	ACTIVATES I-0504 WHICH GIVES PERMISSIVE TO OPEN XDV-9103.	

INTERLOCK TABLE						
INTERLOCK NUMBER	LEVEL	ESD	SIL	INITIATOR	ACTIONS	TIME DELAY
I-0553	1	-		HS-7101D, 514-C-101A STOP LOCAL	TRIPS 514-C-101A	
I-0554	1	-		HS-7600B, 514-C-101A STOP DCS	TRIPS 514-C-101A	
I-0514	2	-		514-C-101A SHUTDOWN WITHOUT DEPRESSURISATION (VENDOR INTERLOCK)	TRIPS 514-C-101A	
I-0545	2	-		514-C-101A SHUTDOWN WITH DEPRESSURISATION (VENDOR INTERLOCK)	TRIPS 514-C-101A, OPEN XDV-9103	
I-0556	2	1		TT-4112, 514-E-103A LOW LOW DISCHARGE TEMPERATURE TALL-4112 (PID 5324-H5-514-00-30-215)	TRIPS 514-C-101A	
I-0557	2	1		TT-4110, 514-E-104A LOW LOW DISCHARGE TEMPERATURE TALL-4110 (PID 5324-H5-514-00-30-218)	TRIPS 514-C-101A	
I-0558	2	1		TT-4111, 514-V-101A, INLET LOW LOW TEMPERATURE TALL-4111 (PID 5324-H5-514-00-30-212)	TRIPS 514-C-101A	