





OWNER:  شرکت مست و سوبی توهر ایرانیاان (سهایی ناس)	<b>BUSHEHR PETROCHEMICAL COMPANY MEG PLANT</b>							EPC CONTRACTOR:  Chagalesh-Enerehimi-Steam Joint Venture BUPC-MEG PLANT PROJECT		
MC :  شرکت مست و سوبی توهر ایرانیاان (سهایی ناس)	<b>LOGIC DIAGRAMS-PROGRAM OF UCP - COMPRESSOR SHUTDOWN LOGIC DRAWING FOR NITROGEN GAS BOOSTER</b>									
Owner Document Number: 17811-32A								<b>Project</b> BU	<b>Area</b> 20	<b>Phase</b> VD
									<b>Rev.:</b> 02	<b>Page</b> 1 of 15

## LOGIC DIAGRAMS-PROGRAM OF UCP - COMPRESSOR SHUTDOWN LOGIC DRAWING FOR NITROGEN GAS BOOSTER

Rev.	Date	Purpose of Issue	Prepared	Checked	Approved	AC Code
02	06/01/2022	Approve For Construction	WZ	KP	JR	
01	30/11/2021	For approval	WZ	KP	JR	
00	24/11/2020	For approval	TJ	RB	JR	
<b>Class: 1      Phase: P</b>						



SYMBOL	FUNCTION	DESCRIPTION
	AND	OUTPUT D EXISTS ONLY IF AND WHILE INPUTS A,B AND C EXIST.
	OR	OUTPUT D EXISTS ONLY IF AND WHILE ONE OR MORE OF INPUTS A,B OR C EXIST.
	XOR	OUTPUT D EXISTS ONLY IF AND WHILE ONE OF INPUTS A,B OR C EXIST.
	NOT	OUTPUT B EXISTS ONLY IF AND WHILE INPUT A DOES NOT EXIST.
	TIMER (DELAY INITIATION)	THE CONTINUOUS EXISTENCE OF INPUT A FOR TIME T CAUSES OUTPUT B TO EXIST WHEN THE TIME T EXPIRES. B TERMINATES IMMEDIATELY WHEN A TERMINATES.
	TIMER (DELAY TERMINATION)	THE EXISTENCE OF INPUT A CAUSES OUTPUT B TO EXIST IMMEDIATELY. B TERMINATES WHEN A HAS TERMINATED AND HAS NOT AGAIN EXISTED FOR TIME T.
	PULSE OUTPUT	THE EXISTENCE OF INPUT A CAUSES OUTPUT B TO EXIST IMMEDIATELY. B EXISTS FOR TIME T, REGARDLESS OF THE STATE OF A.
	FLIP-FLOP MEMORY (SET PRIORITY)	OUTPUT C EXISTS AS SOON AS A EXISTS. C CONTINUES TO EXIST, REGARDLESS OF THE SUBSEQUENT STATE OF A, UNTIL THE MEMORY IS RESET (I.E; TERMINATED BY B EXISTING) C REMAINS TERMINATED, REGARDLESS OF THE SUBSEQUENT STATE OF B, UNTIL A CAUSES THE MEMORY TO BE SET. IF A AND B EXIST SIMULTANEOUSLY, A OVERRIDES B.
	FLIP-FLOP MEMORY (RESET PRIORITY)	OUTPUT C EXISTS AS SOON AS A EXISTS. C CONTINUES TO EXIST, REGARDLESS OF THE SUBSEQUENT STATE OF A, UNTIL THE MEMORY IS RESET (I.E; TERMINATED BY B EXISTING) C REMAINS TERMINATED, REGARDLESS OF THE SUBSEQUENT STATE OF B, UNTIL A CAUSES THE MEMORY TO BE SET. IF A AND B EXIST SIMULTANEOUSLY, B OVERRIDES A.
		LOGIC CONNECTION
		NO CONNECTION
		SERIAL LINK / FOUNDATION FIELDBUS PROTOCOL

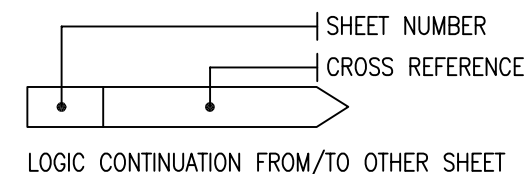
SYMBOL	DESCRIPTION
	EMERGENCY PUSHBUTTON, RED HEAD, STAY PUT.
	TOGGLE SWITCH
	PUSHBUTTON MOMENTARILY MAKE
	PUSHBUTTON MOMENTARILY BREAK
	CONTACT NORMALLY OPEN
	CONTACT NORMALLY CLOSED
	HARDWIRED INPUT/OUTPUT
	SOLENOID VALVE, 3-WAY
	DISTRIBUTED CONTROL SYSTEM
	PLC CONTROL SYSTEM
	DCS AUXILIARY CONSOLE
	LAMP
	HMI
	AUDIBLE ALARM
	RELAY COIL

### ABBREVIATIONS

DCS : DISTRIBUTED CONTROL SYSTEM  
 UCP : UNIT CONTROL PANEL  
 LCP : LOCAL CONTROL PANEL  
 PLC : PROGRAMMABLE LOGIC CONTROLLER  
 I/P : INPUT  
 O/P : OUTPUT  
 ESD : EMERGENCY SHUTDOWN  
 MCC : MOTOR CONTROL CENTRE

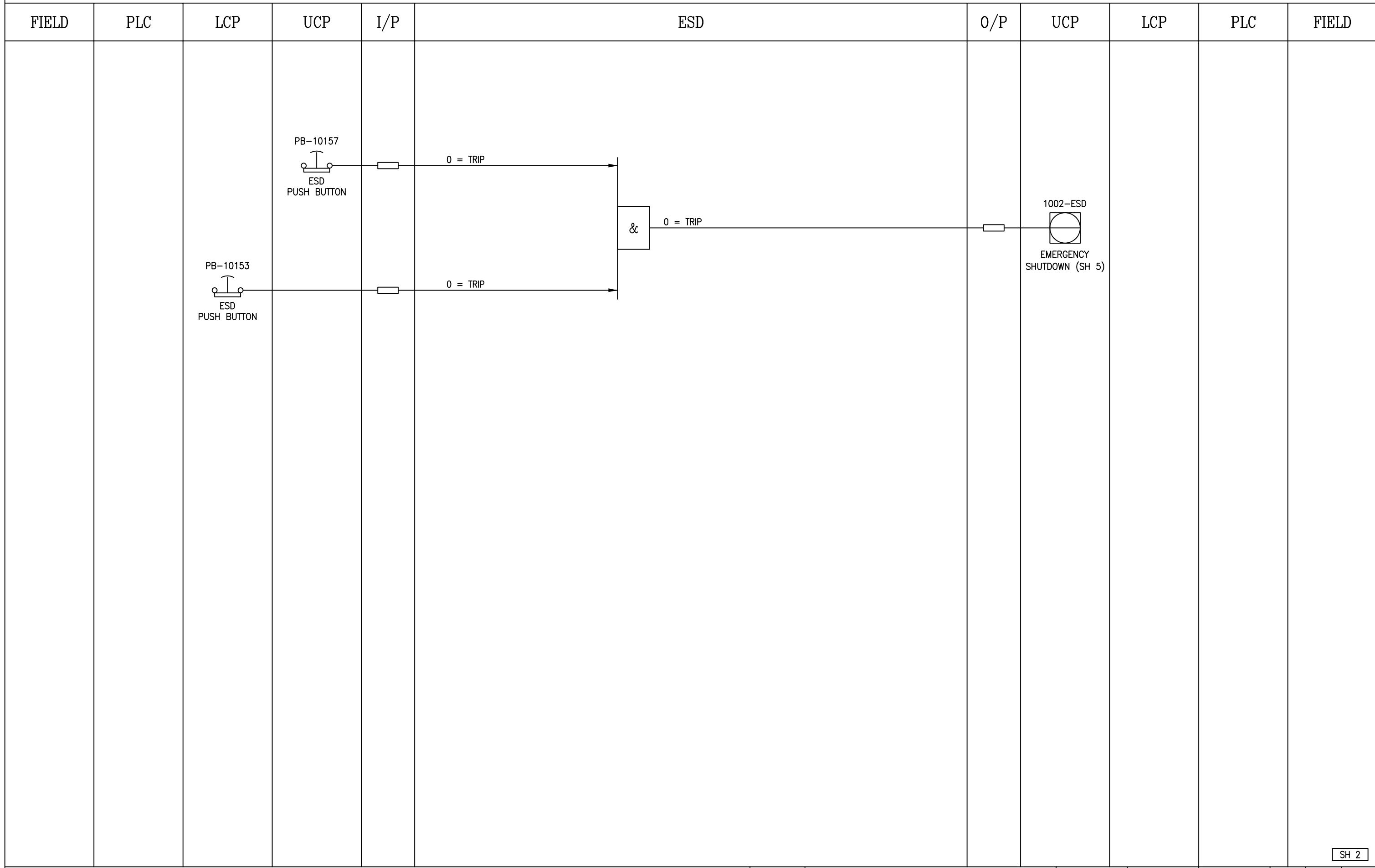
### GENERAL NOTES

- SHUTDOWN CONDITION ;  
0 = SHUTDOWN 1 = OPERATING
- ALARM/TRIP CONDITION ;  
0 = ALARM 1=NORMAL  
0 = TRIP 1=NORMAL
- REMOTE/LOCAL CONDITION ;  
0 = LOCAL 1=REMOTE



SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE 20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION			
CLIENT BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION IRAN	DRAWN BY TJ		REV 02	03-01-2022	AS
CLIENT REF 20-C-1002	DRAWING NO. 17811-32A	CHECKED BY KP	REV 01	29-11-2021	WZ	
AIRPACK REF 17811	SHEETNO. 01 /13		REV 00	20-11-2020	TJ	

LOGIC DIAGRAM

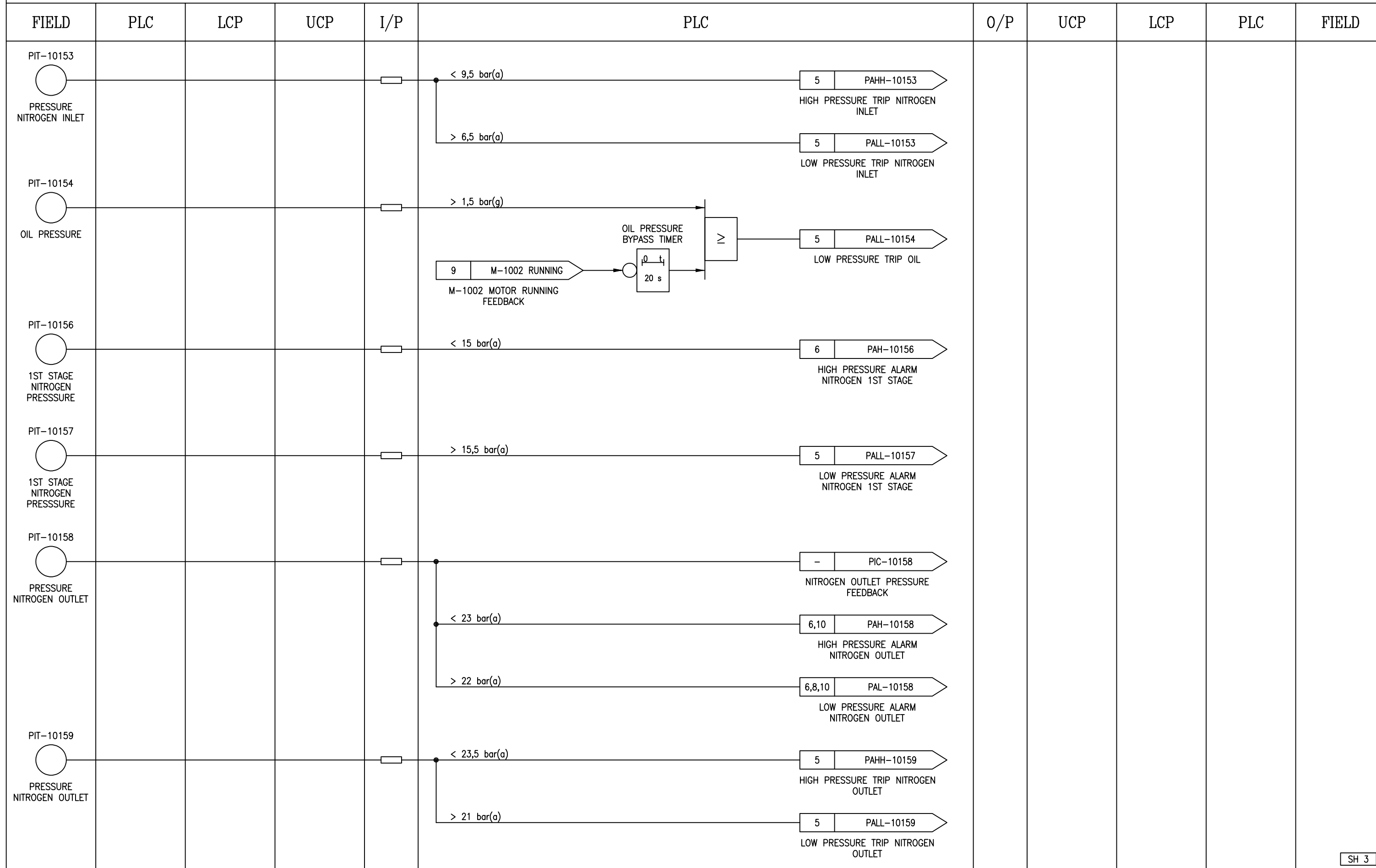


SH 2

NOTES:


	SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE	20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION				
			DRAWN BY	TJ					
			CHECKED BY	KP					
	CLIENT	BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION	IRAN					
CLIENT REF	20-C-1002	DRAWING NO.	17811-32A				REV 02	03-01-2022	AS
AIRPACK REF	17811	SHEETNO.	02 /13				REV 01	29-11-2021	WZ
							REV 00	20-11-2020	TJ

LOGIC DIAGRAM



SH 3

NOTES:

	SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE 20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION
	CLIENT BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION IRAN	DRAWN BY TJ	
CLIENT REF 20-C-1002	DRAWING NO. 17811-32A	CHECKED BY KP	REV 02 03-01-2022 AS	
AIRPACK REF 17811	SHEETNO. 03 /13		REV 01 29-11-2021 WZ	
			REV 00 20-11-2020 TJ	

LOGIC DIAGRAM

FIELD	PLC	LCP	UCP	I/P	PLC	O/P	UCP	LCP	PLC	FIELD
TIT-10151 TEMPERATURE NITROGEN INLET					< 56 °C	6	TAH-10151			
										HIGH TEMPERATURE ALARM NITROGEN INLET
TIT-10152 TEMPERATURE COMPRESSOR 1ST STAGE					< 160 °C	6	TAH-10152			
										HIGH TEMPERATURE ALARM COMPRESSOR 1ST STAGE
TIT-10153 TEMPERATURE COMPRESSOR 1ST STAGE					< 170 °C	5	TAHH-10153			
										HIGH TEMPERATURE ALARM COMPRESSOR 1ST STAGE
TIT-10154 TEMPERATURE COMPRESSOR 1ST INTERCOOLER					< 50 °C	6	TAH-10154			
										HIGH TEMPERATURE ALARM COMPRESSOR 1ST STAGE INTERCOOLER
TIT-10155 TEMPERATURE COMPRESSOR UPSTREAM AFTER-COOLER					< 140 °C	5	TAHH-10155			
										HIGH TEMPERATURE TRIP TEMPERATURE COMPRESSOR UPSTREAM AFTER-COOLER
VT-10151 VIBRATION SENSOR COMPRESSOR BLOCK					< 8 mm/sec	5	VAHH-10151			
										HIGH VIBRATION TRIP COMPRESSOR BLOCK
FT-10151 FLOW TRANSMITTER COMPRESSOR OUTLET					> 13 m <sup>3</sup> /hr	6	FAL-10151			
										LOW FLOW ALARM COMPRESSOR OUTLET

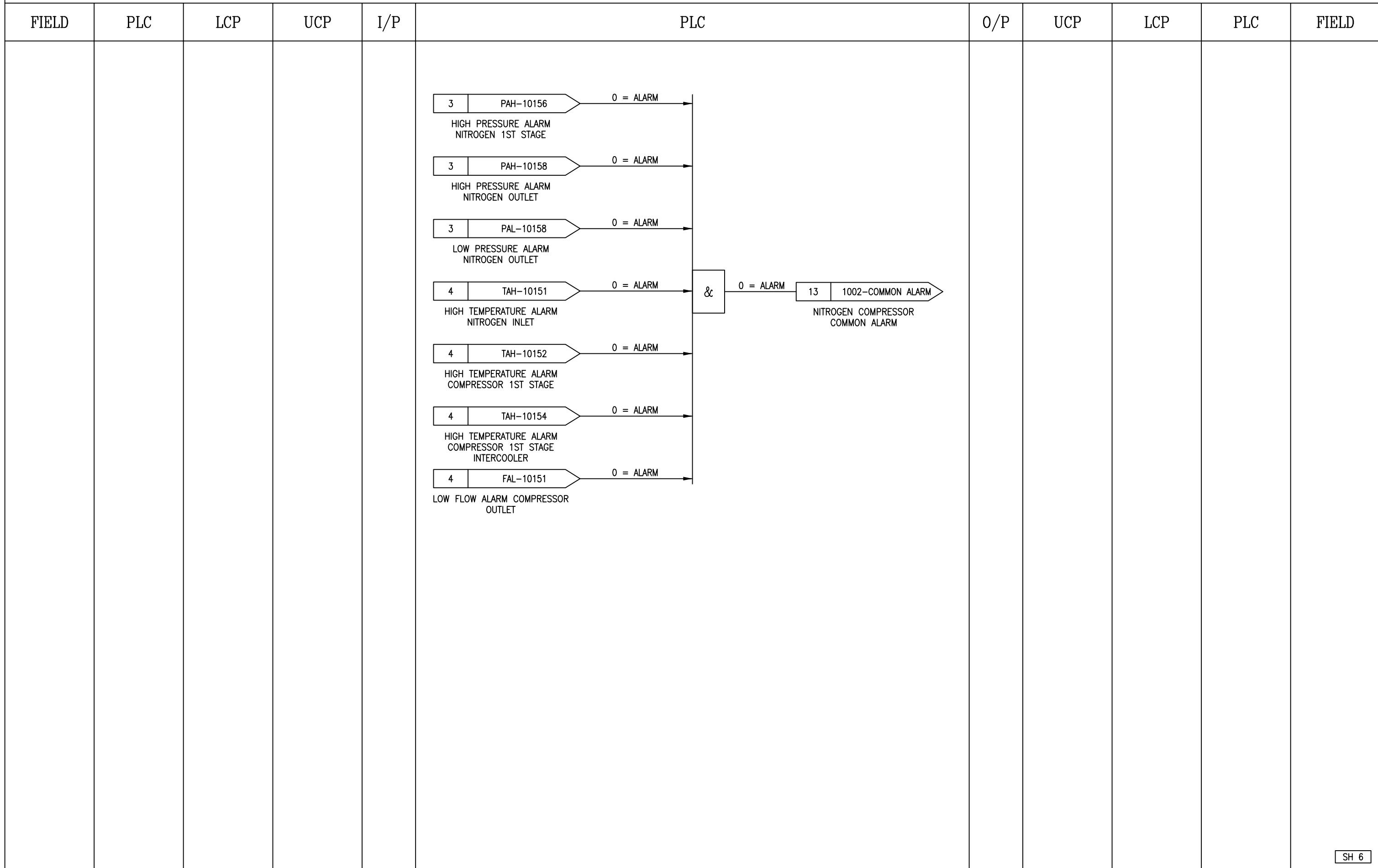
SH 4

NOTES:

	SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE 20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION
	CLIENT BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION IRAN	DRAWN BY TJ	
CLIENT REF 20-C-1002	DRAWING NO. 17811-32A	CHECKED BY KP	REV 02 03-01-2022 AS	
AIRPACK REF 17811	SHEETNO. 04 /13		REV 01 29-11-2021 WZ	
			REV 00 20-11-2020 TJ	



LOGIC DIAGRAM



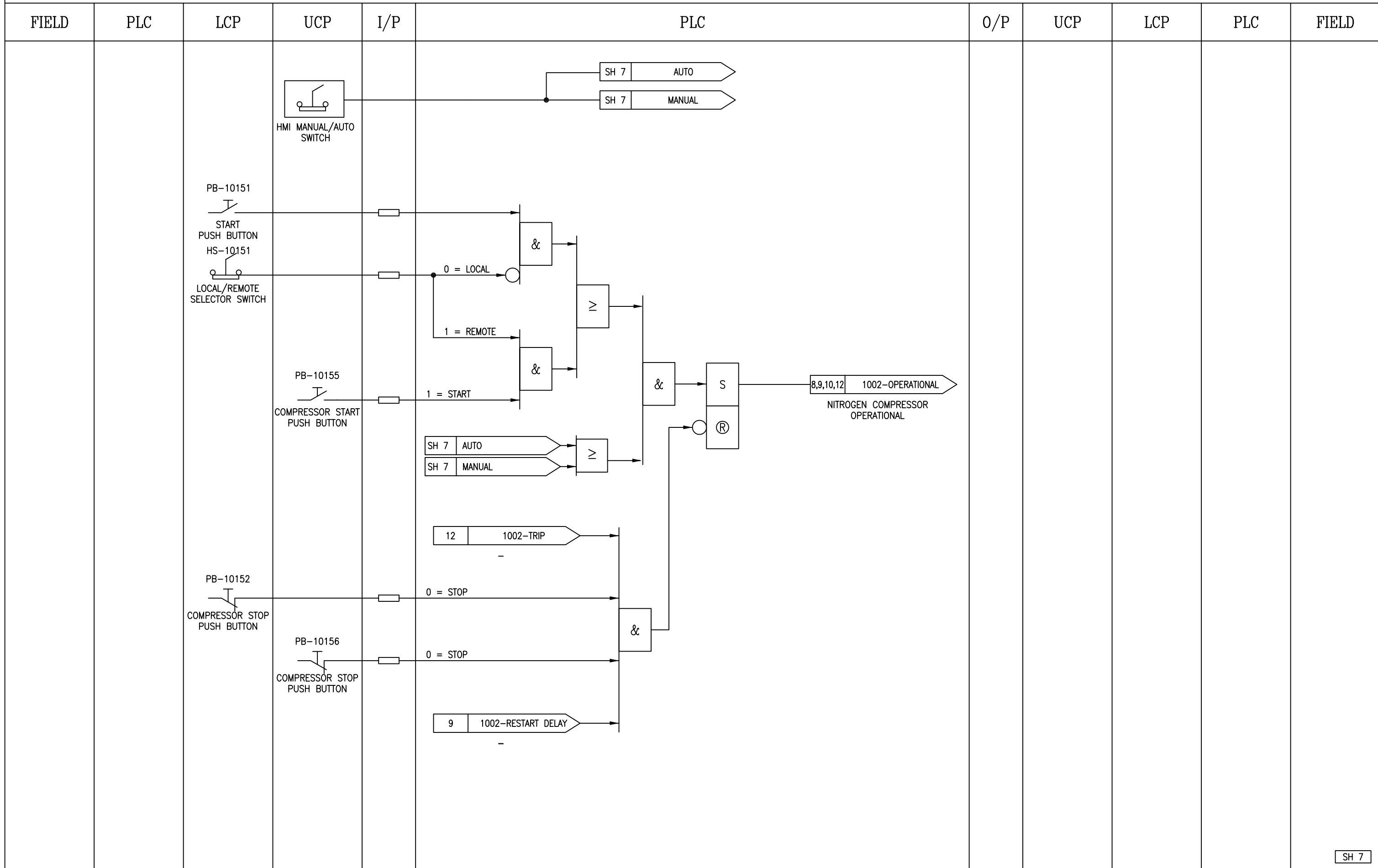
SH 6

NOTES:



SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE	20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION		
		DRAWN BY	TJ			
		CHECKED BY	KP			
CLIENT	BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION	IRAN	REV 02	03-01-2022	AS
CLIENT REF	20-C-1002	DRAWING NO.	17811-32A	REV 01	29-11-2021	WZ
AIRPACK REF	17811	SHEETNO.	06 /13	REV 00	20-11-2020	TJ

LOGIC DIAGRAM

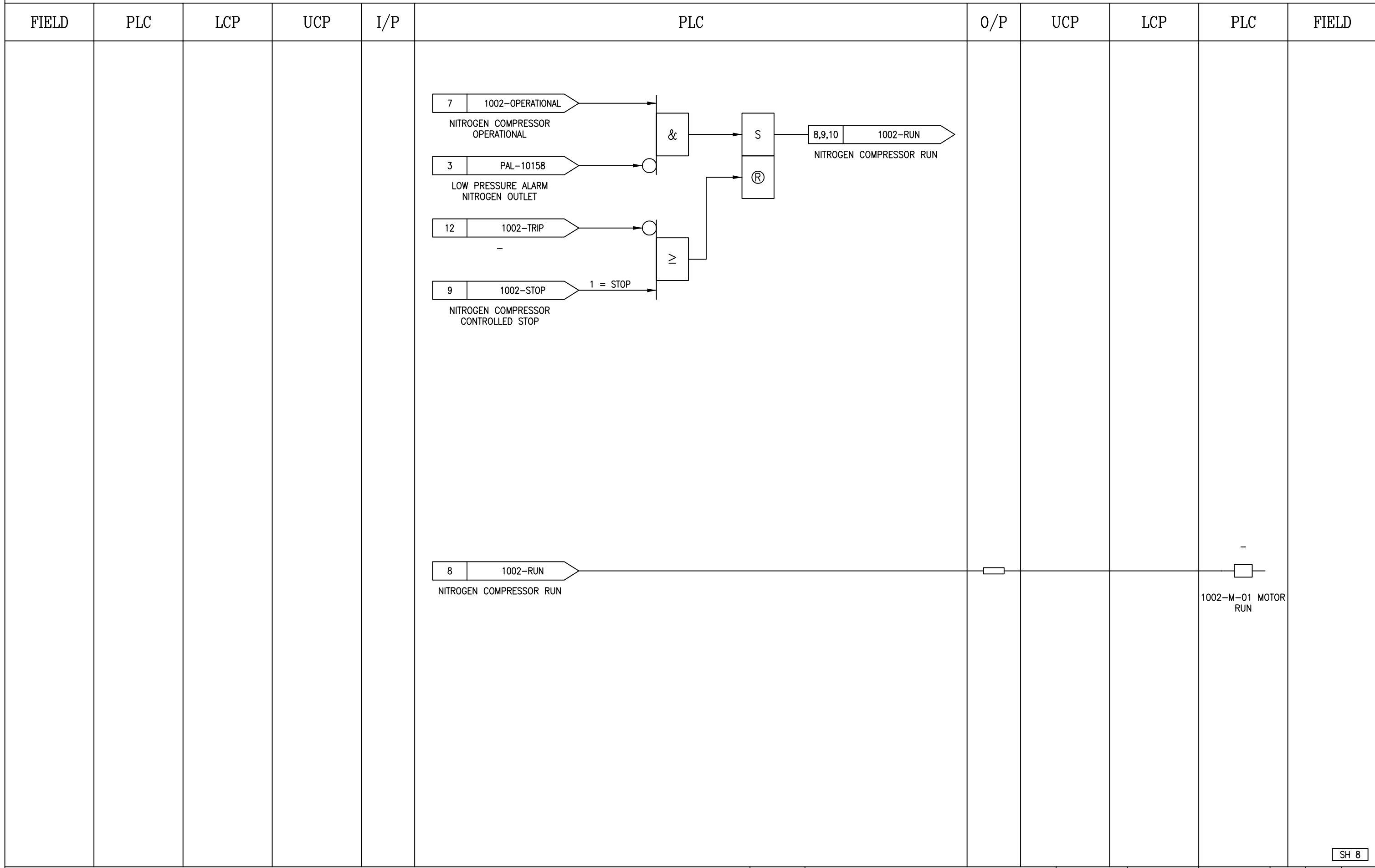


SH 7

NOTES:

	SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE 20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION
	CLIENT BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION IRAN	DRAWN BY TJ	
	CLIENT REF 20-C-1002	DRAWING NO. 17811-32A	CHECKED BY KP	REV 02 03-01-2022 AS
	AIRPACK REF 17811	SHEETNO. 07 /13		REV 01 29-11-2021 WZ
				REV 00 20-11-2020 TJ

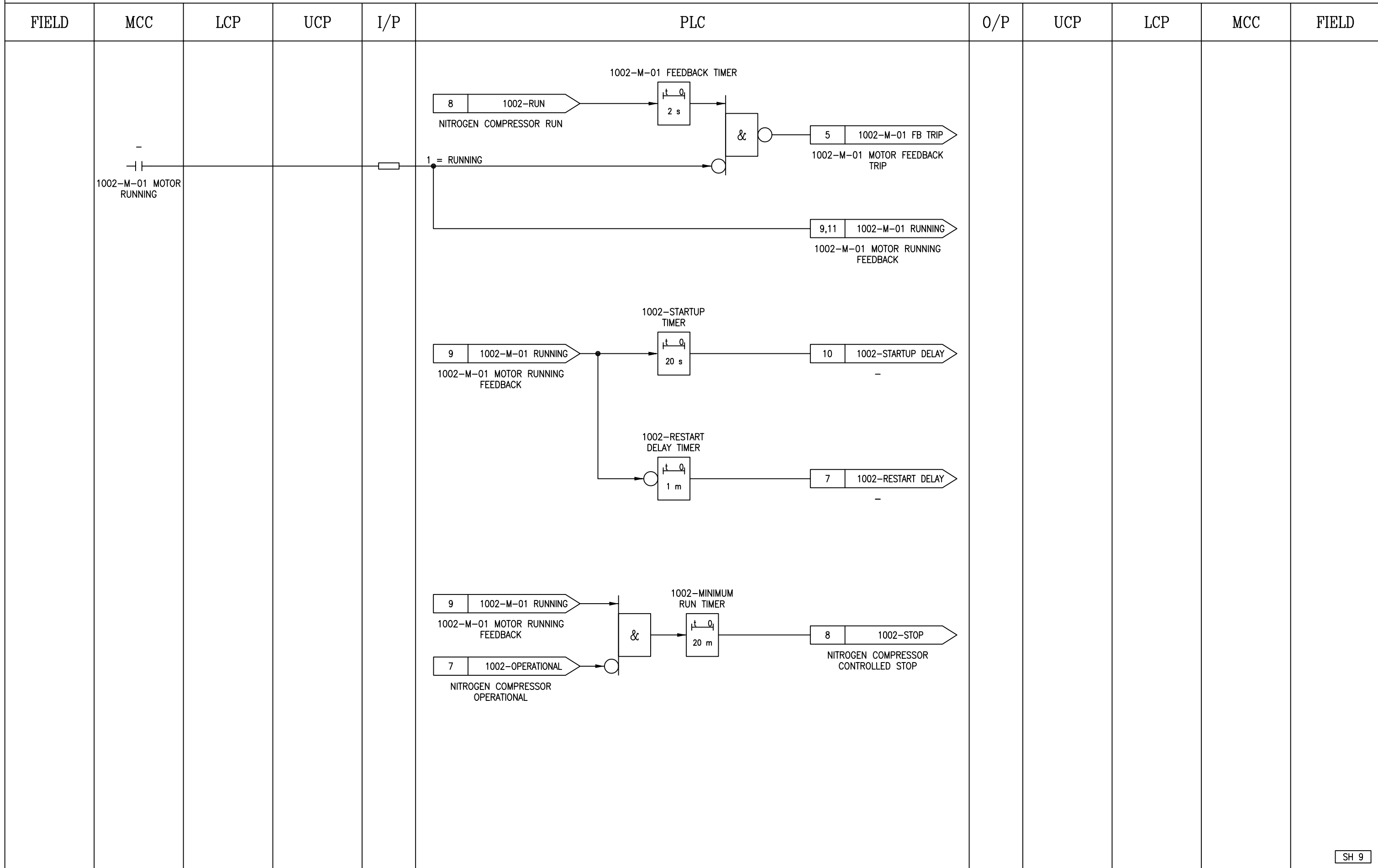
LOGIC DIAGRAM



NOTES:

	SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE 20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION
	CLIENT BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION IRAN	DRAWN BY TJ	
CLIENT REF 20-C-1002	DRAWING NO. 17811-32A	CHECKED BY KP	REV 02 03-01-2022 AS	
AIRPACK REF 17811	SHEETNO. 08 /13	DRAWING NO. 17811-32A	REV 01 29-11-2021 WZ	
		SHEETNO. 08 /13	REV 00 20-11-2020 TJ	

LOGIC DIAGRAM

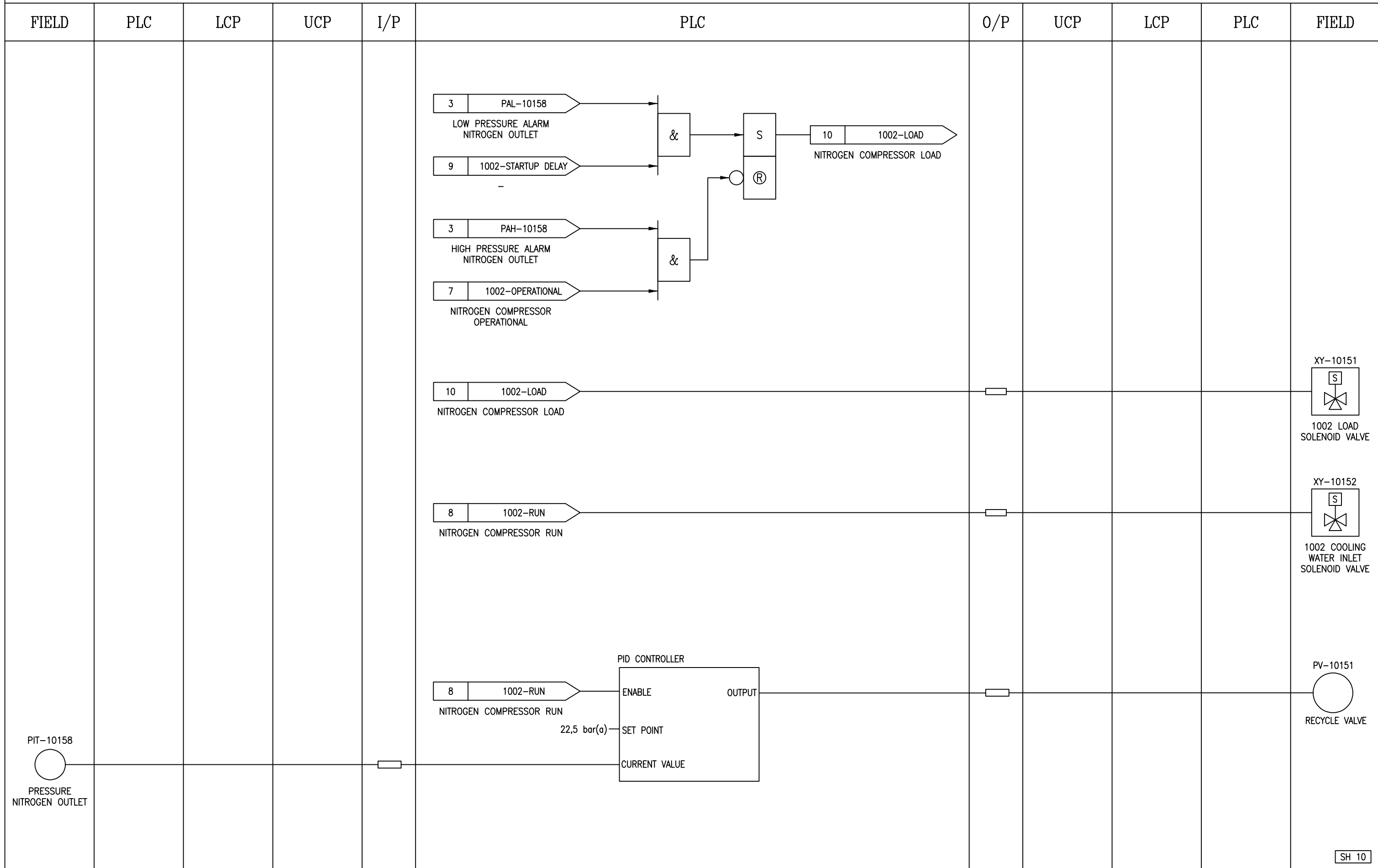


SH 9

NOTES:

	SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE 20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION
	CLIENT BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION IRAN	DRAWN BY TJ	
CLIENT REF 20-C-1002	DRAWING NO. 17811-32A	CHECKED BY KP	REV 02 03-01-2022 AS	
AIRPACK REF 17811	SHEETNO. 09 /13		REV 01 29-11-2021 WZ	
			REV 00 20-11-2020 TJ	

LOGIC DIAGRAM



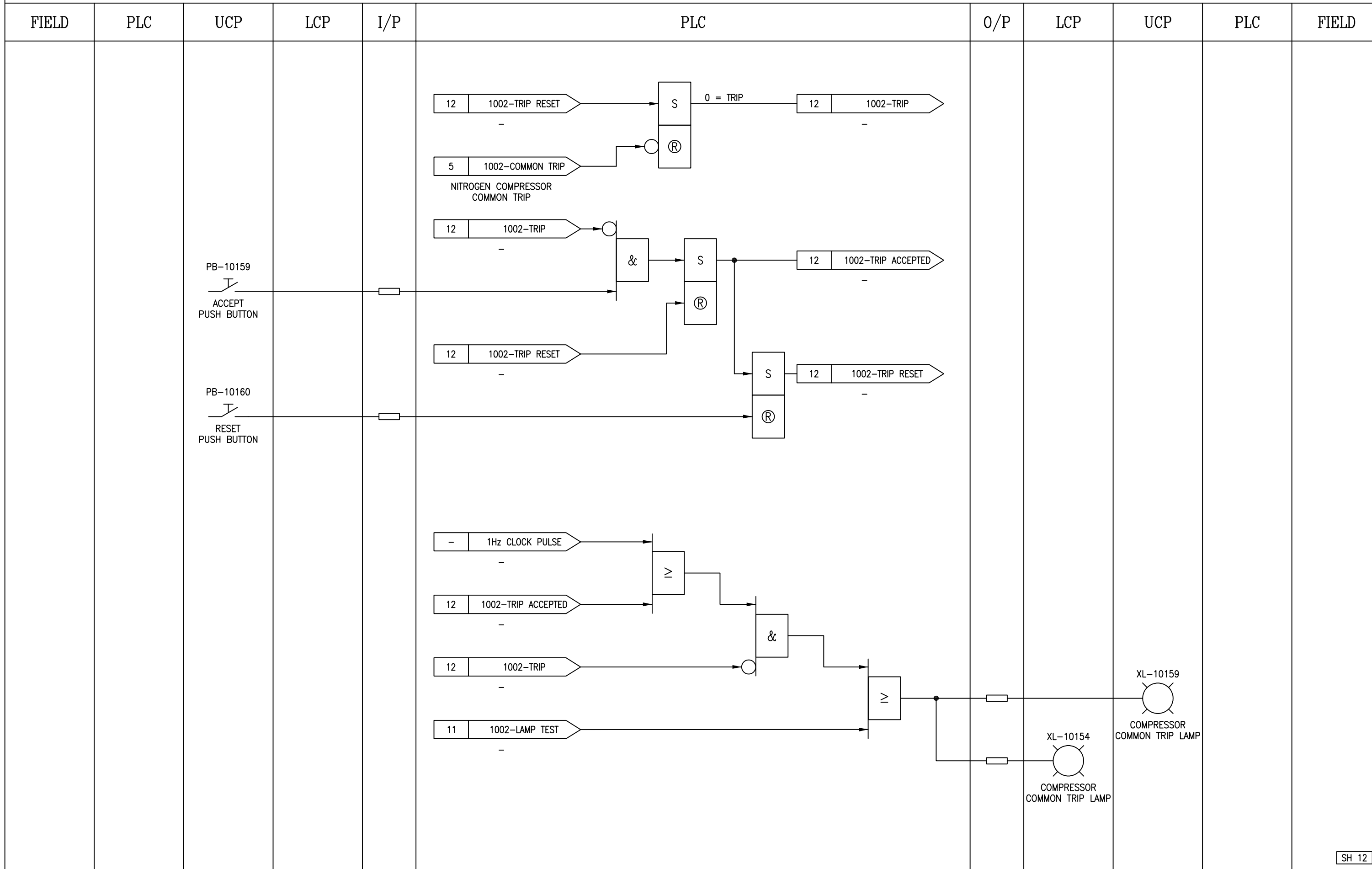
SH 10

NOTES:

	SUBJECT	BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR	DATE	20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION		
	CLIENT	BUSHEHR PETROCHEMICAL COMPANY (BUPC)	DRAWN BY	TJ			
	CLIENT REF	20-C-1002	CHECKED BY	KP	REV 02	03-01-2022	AS
	AIRPACK REF	17811	PLANT LOCATION	IRAN	REV 01	29-11-2021	WZ
			DRAWING NO.	17811-32A	REV 00	20-11-2020	TJ
			SHEETNO.	10 /13			



LOGIC DIAGRAM



SH 12

NOTES:

	SUBJECT BUSHEHR PETROCHEMICAL COMPANY MEG PLANT NITROGEN COMPRESSOR		DATE 20-11-2020	THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION
	CLIENT BUSHEHR PETROCHEMICAL COMPANY (BUPC)	PLANT LOCATION IRAN	DRAWN BY TJ	
CLIENT REF 20-C-1002	DRAWING NO. 17811-32A	CHECKED BY KP	REV 02 03-01-2022 AS	
AIRPACK REF 17811	SHEETNO. 12 / 13		REV 01 29-11-2021 WZ	
			REV 00 20-11-2020 TJ	

