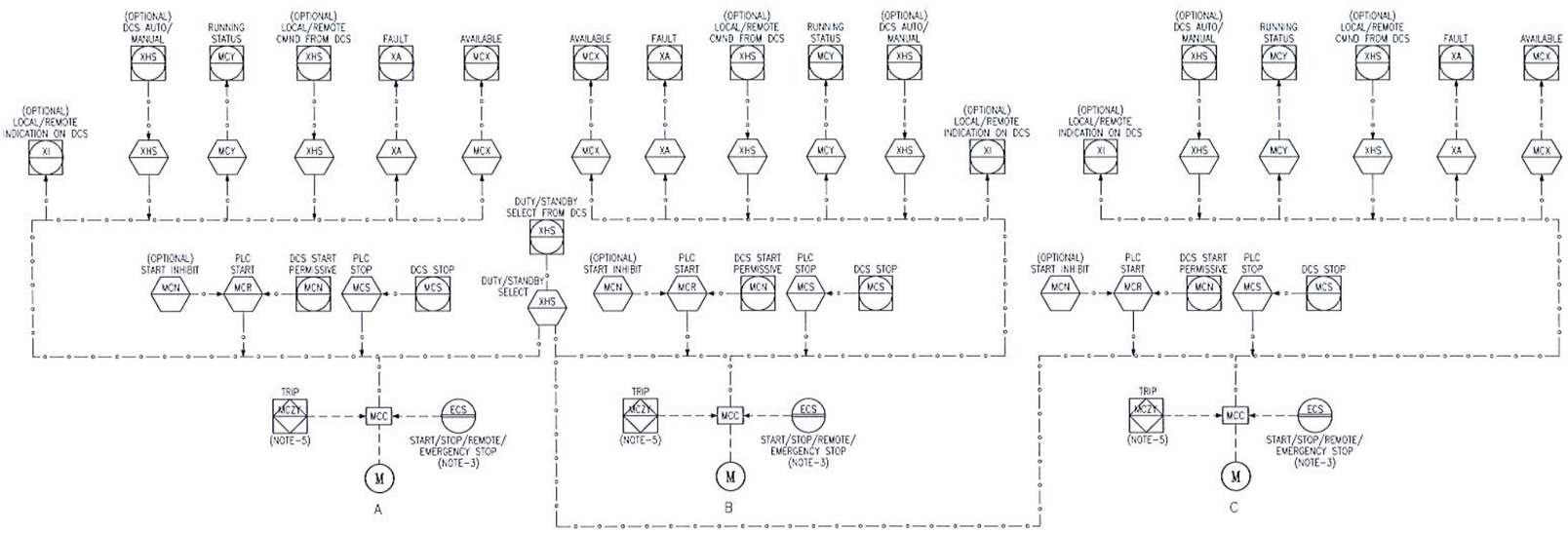
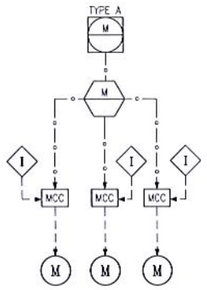
SHOWN ON P&ID

ENGINEERING DETAIL

THREE COMPRESSOR MOTORS ICSS/PLC CONTROLLED (TYPE-A)





(NOTE-1,6)

Type A									
Duty Stand By Compressor (3 X 50%, 2 DUTY + 1 STANDBY) ICSS CONTROLLED		SUFFIX FOR SIGNALS			Type A.1	Type A.2	Type A.3	Type A.4	Type A.5
	ENS CODE	MOTOR A	MOTOR B	MOTOR C					
LOCAL/REMOTE CMND FROM DCS (OPTIONAL): (FOR OPERATIONAL MODE)	XHS				X	X	X	X	
DCS START	MCR	A	B	C	X	X	X	X	X
DCS STOP	MCS	A	B	C	X	X	X	X	X
RUNNING STATUS ON DCS	MCY	A	B	C	X	X	X	X	X
FAULT ON DCS	XA	A	B	C	X	X	X	X	X
AVAILABLE ON DCS	MCX	A	B	C	X	X	X	X	X
LOCAL REMOTE INDICATION ON DCS (FOR MOTORS ONLY) OPTIONAL	XI	A	B	C	X	X	X	X	X
DUTY /STANDBY SELECT FROM DCS (FOR OPERATIONAL MODE)	XHS				X	X	X	X	X
LOCAL/REMOTE CMND FROM LER UCP (FOR OPERATIONAL MODE)	XHS				X		X		X
LOCAL START FROM LER UCP	MCR	A	B	C	X	X	X	X	X
LOCAL STOP FROM LER UCP	MCS	A	B	C	X	X	X	X	X
RUNNING STATUS ON LER UCP	MCY	A	B	C	X	X	X	X	X
FAULT ON LER UCP	XA	A	B	C	X	X	X	X	X
AVAILABLE ON LER UCP	MCX	A	B	C	X	X	X	X	X
LOCAL REMOTE INDICATION ON LER UCP (FOR MOTORS ONLY) OPTIONAL	XI	A	B	C	X	X	X	X	X
DUTY /STANDBY SELECT FROM LER UCP (FOR OPERATIONAL MODE)	XHS				X		X		X
ESD TRIP	MCZY	A	B	C	X	X	X	X	X
EMERGENCY STOP FROM FIELD (BY ECS)					X	X	X	X	X
COMPRESSOR MOTOR SPEED MEASUREMENT	MCSI	A	B	C			X	X	
COMPRESSOR MOTOR CURRENT	MCI	A	B	C			X	X	X
COMPRESSOR MOTOR POWER	MCJ	A	B	C			X	X	X
COMPRESSOR MOTOR START INHIBIT	MCN	A	B	C			X	X	X
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. COMMS OK)	MCXA	A	B	C			X	X	
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. STARTER IN TEST POSITION)	MCXB	A	B	C			X	X	
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. SIS STOP LATCHED)	MCXC	A	B	C			X	X	
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. FIELD STOP LATCHED)	MCXD	A	B	C			X	X	

NOTES:

1. THE ABOVE SIGNAL LIST AND P&ID REPRESENTATION TO BE USED ONLY FOR NAMING COMPRESSOR MOTOR SIGNALS. THE ACTUAL CONTROL SCHEME AND RELATED SIGNAL SHALL BE AS PER CONTROL NARRATIVE FOR COMPRESSOR CONTROL.
2. ALL THE OPERATIONAL SIGNALS AND FEEDBACKS TO THE PLC SHALL BE REPEATED TO THE DCS VIA SERIAL COMMUNICATION.
3. ECS SHALL HAVE ONLY EMERGENCY STOP AS DEFAULT. SELECTIVE MOTORS SHALL HAVE OPTIONS OF LOCAL START/STOP/REMOTE SELECTION BASED ON OPERATIONS.
4. INDIVIDUAL COMPRESSORS WITHIN PACKAGE UCP (UNIT CONTROL PANEL) SHALL HAVE REMOTE/LOCAL KEY.
   REMOTE – OPERATION FROM DCS.
   LOCAL – OPERATION FROM PACKAGE UCP.
5. HARDWIRED TRIP FROM BOP SIS SHALL BE PROVIDED IN ADDITION TO PACKAGE SIS SYSTEM.
6. THE SUB-TYPE PROVIDED FOR MOTOR CONTROL ARE INDICATIVE ONLY. THE SELECTION OF SIGNALS SHALL BE BASED ON PLANT OPERATIONS AS ELABORATED IN THE CONTROL NARRATIVE.
7. THE OPTIONAL SIGNALS SHALL BE SELECTED BASED ON CONTROL PHILOSOPHY, AS ELABORATED IN THE CONTROL NARRATIVE.

REV	DATE	DESCRIPTION	PREP'D	CHK'D	APP'D	
C01	25.05.16	ISSUED FOR CONSTRUCTION	DX	VU	AB	SQ
D01	18.02.16	ISSUED FOR USE (DD)	DX	SI/VU	AB	SQ
H01	28.12.15	ISSUED FOR HAZOP (DD)	DX	SI/VU	AB	SQ
G01	26.10.15	ISSUED FOR REVIEW (DD)	DX	SI/VU	TT	SQ
A02	13.07.15	RE-ISSUED FOR COMPANY REVIEW	DX	SI/RS	TT	SQ
A01	28.05.15	ISSUED FOR COMPANY REVIEW	DX	SI/RS	TT	SQ

EARLY POWER PLANT
RUMAILA OIL FIELD
CONTRACT NO. 100478

中国石油工程建设公司
CHINA PETROLEUM ENGINEERING & CONSTRUCTION CORP.

CH2MHILL

DRAWING TITLE:
PIPING AND INSTRUMENTATION DIAGRAM
LEGEND SHEET
MOTOR CONTROL CENTRES

PROJECT NO.	100478CP	SCALE:	NONE	DWG SIZE:	A1
DRAWING NUMBER:				SHT. NO.:	REV.
100478CP-N-PG-PP01-PR-PID-0001-017				17/17	C01

CAD FILENAME100478CP-N-PG-PP01-PR-PID-0001-017-001.DWG

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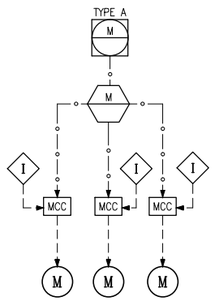
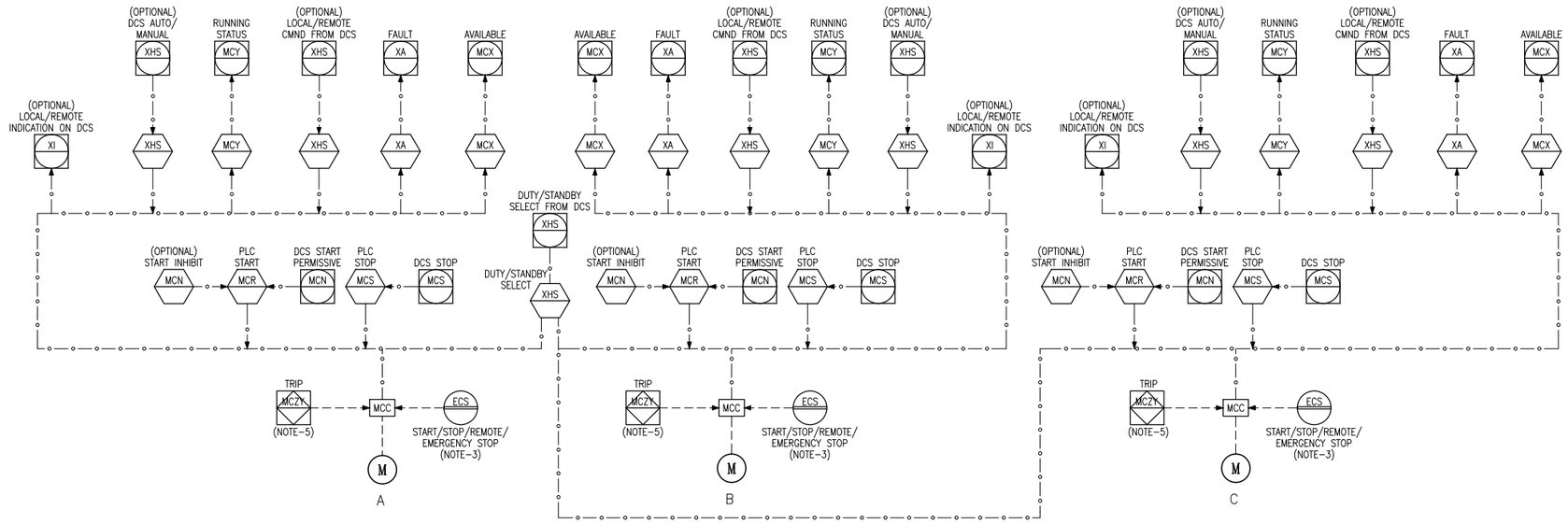
SHOWN ON P&ID



ENGINEERING DETAIL

THREE COMPRESSOR MOTORS ICSS/PLC CONTROLLED (TYPE-A)



(NOTE-1,6)

Type A									
Duty Stand By Compressor (3 X 50%, 2 DUTY + 1 STANDBY) ICSS CONTROLLED		SUFFIX FOR SIGNALS			Type A.1	Type A.2	Type A.3	Type A.4	Type A.5
	ENS CODE	MOTOR A	MOTOR B	MOTOR C					
LOCAL/REMOTE CMND FROM DCS (OPTIONAL): (FOR OPERATIONAL MODE)	XHS				X	X	X	X	
DCS START	MCR	A	B	C	X	X	X	X	X
DCS STOP	MCS	A	B	C	X	X	X	X	X
RUNNING STATUS ON DCS	MCY	A	B	C	X	X	X	X	X
FAULT ON DCS	XA	A	B	C	X	X	X	X	X
AVAILABLE ON DCS	MCX	A	B	C	X	X	X	X	X
LOCAL REMOTE INDICATION ON DCS (FOR MOTORS ONLY) OPTIONAL	XI	A	B	C	X	X	X	X	X
DUTY /STANDBY SELECT FROM DCS (FOR OPERATIONAL MODE)	XHS				X	X	X	X	X
LOCAL/REMOTE CMND FROM LER UCP (FOR OPERATIONAL MODE)	XHS				X		X		X
LOCAL START FROM LER UCP	MCR	A	B	C	X	X	X	X	X
LOCAL STOP FROM LER UCP	MCS	A	B	C	X	X	X	X	X
RUNNING STATUS ON LER UCP	MCY	A	B	C	X	X	X	X	X
FAULT ON LER UCP	XA	A	B	C	X	X	X	X	X
AVAILABLE ON LER UCP	MCX	A	B	C	X	X	X	X	X
LOCAL REMOTE INDICATION ON LER UCP (FOR MOTORS ONLY) OPTIONAL	XI	A	B	C	X	X	X	X	X
DUTY /STANDBY SELECT FROM LER UCP (FOR OPERATIONAL MODE)	XHS				X		X		X
ESD TRIP	MCZY	A	B	C	X	X	X	X	X
EMERGENCY STOP FROM FIELD (BY ECS)					X	X	X	X	X
COMPRESSOR MOTOR SPEED MEASUREMENT	MCSI	A	B	C			X	X	
COMPRESSOR MOTOR CURRENT	MCI	A	B	C			X	X	X
COMPRESSOR MOTOR POWER	MCJ	A	B	C			X	X	X
COMPRESSOR MOTOR START INHIBIT	MCN	A	B	C			X	X	X
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. COMMS OK)	MCXA	A	B	C			X	X	
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. STARTER IN TEST POSITION)	MCXB	A	B	C			X	X	
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. SIS STOP LATCHED)	MCXC	A	B	C			X	X	
COMPRESSOR MOTOR - MISC SWITCHGEAR STATUS (E.G. FIELD STOP LATCHED)	MCXD	A	B	C			X	X	

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PROJECT NO.	100478CP	SCALE: NONE	DWG SIZE:	A1
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CAD FILENAME:100478CP-N-PG-PP01-PR-PID-0001-017-C01.DWG

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