





الرميلة







RUMAILA PROJECT

Document Number :	100478CP-N-PG-PP01-PR-LST-0002	Class	B
Document Title :	EQUIPMENT LIST		
Project Title:	EARLY POWER PLANT PROJECT, RUMAILA OIL FIELD, IRAQ		
Tag No's (if applicable)	N/A		
Contractor:	CHINA PETROLEUM ENGINEERING & CONSTRUCTION CORPORATION		
Contractor Document No:	481845-301-PR-LIS-0007	Rev	D02

D02	ISSUED FOR USE (DETAILED DESIGN)	28-Mar-16				
			FAHAD A. R.	V. UPADHYAY	A. BHAYO	S. QAZI
D01	ISSUED FOR USE (DETAILED DESIGN)	3-Feb-16				
			S. IRFAN	V. UPADHYAY	A. BHAYO	S. QAZI
G01	ISSUED FOR REVIEW (DETAILED DESIGN)	10-Dec-15				
			S. IRFAN	V. UPADHYAY	T. THOROGOOD	S. QAZI
B01	ISSUED FOR USE	13-Aug-15				
			S. HASAN	S. IRFAN	T. THOROGOOD	S. QAZI
A01	ISSUED FOR COMPANY REVIEW	12-Mar-15				
			T.SHIMNA	R.SUR	T. THOROGOOD	S.QAZI
Rev.	Revision Description	Date	Originated	Reviewed	Approved	

		EARLY POWER PLANT PROJECT RUMAILA OIL FIELD, IRAQ CONTRACT NO.: 100478																
		EQUIPMENT LIST																
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Sl. No.	EQUIPMENT TAG NO		EQUIPMENT DESCRIPTION	EQUIPMENT LOCATION	Design Capacity	Quantity (No.)	Dimensions	Operating Pressure (Barg)	Design Pressure (Barg)	Operating Temp. (°C)	Design Temp. (°C)	Motor Power (KW)	Heat Duty (KW)	MOC + C.A.	P&ID	REMARKS		
Fuel Gas System																		
1	PP01-361-V001	Scraper Launcher (DS-1)	Outside DS-1	NA	1	Major Barrel 610mm Dia / Minor Barrel 508mm Dia	10 ~11	45	20 ~ 80	-29/100	NA			CS (NACE) + 3mm CA	100478CP-N-PG-PP01-PR-PID-0004-001			
2	PP01-361-V002	Scraper Receiver (DS-1)	EPP	NA	1	Major Barrel 610mm Dia / Minor Barrel 508mm Dia	10 ~11	45	20 ~ 80	-29/100	NA			CS (NACE) + 3mm CA	100478CP-N-PG-PP01-PR-PID-0005-001			
3	PP01-361-V003	Scraper Launcher (DS-3)	Outside DS-3	NA	1	Major Barrel 610mm Dia / Minor Barrel 508mm Dia	10 ~11	45	20 ~ 80	-29/100	NA			CS (NACE) + 3mm CA	100478CP-N-PG-PP01-PR-PID-0006-001			
4	PP01-361-V004	Scraper Receiver (DS-3)	EPP	NA	1	Major Barrel 610mm Dia / Minor Barrel 508mm Dia	10 ~11	45	20 ~ 80	-29/100	NA			CS (NACE) + 3mm CA	100478CP-N-PG-PP01-PR-PID-0007-001			
5	PP01-362-V001	Fuel Gas KO Drum	EPP	60,000 Kg/h	1	2200 mm (I.D) x 5500 mm (L)	9 ~10.4	14/FV	20 ~ 80	-15/100	NA			CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0008-001			
6	PP01-362-Z001	Fuel Gas Treatment Package	EPP	60,000 Kg/h	1	15000 mm (W) x 25000 mm (L)	8.7 ~10.4	14/FV	20 ~ 80	-29/100	NA			CS + 3mm CA (Internal Epoxy Coated)	100478CP-N-PG-PP01-PR-PID-0009-001			
7	PP01-362-V002A	Inlet Filter Separator A	EPP	60,000 Kg/h	1	1100 mm (ID) x 4800 mm (H)	8.7 ~10.4	14/FV	20 ~ 80	-29/100	NA			CS + 3mm CA (Internal Epoxy Coated)	100478CP-N-PG-PP01-PR-PID-0009-001	Part of Fuel Gas Treatment Package (PP01-362-Z001)		
8	PP01-362-V002B	Inlet Filter Separator B	EPP	60,000 Kg/h	1	1100 mm (ID) x 4800 mm (H)	8.7 ~10.4	14/FV	20 ~ 80	-29/100	NA			CS + 3mm CA (Internal Epoxy Coated)	100478CP-N-PG-PP01-PR-PID-0009-001			
9	PP01-362-V003A	Adsorbent vessel A	EPP	24,000 Kg/h	1	3800 mm (ID) x 9120 mm (H)	8.7 ~10.4	14/FV	20 ~ 80	-29/100	NA			CS + 3mm CA (Internal Epoxy Coated)	100478CP-N-PG-PP01-PR-PID-0010-001			
10	PP01-362-V003B	Adsorbent vessel B	EPP	24,000 Kg/h	1	3800 mm (ID) x 9120 mm (H)	8.7 ~10.4	14/FV	20 ~ 80	-29/100	NA			CS + 3mm CA (Internal Epoxy Coated)	100478CP-N-PG-PP01-PR-PID-0010-001			
11	PP01-362-H001	Superheater	EPP	24,000 Kg/h	1	1000 mm (I.D.) x 4000 mm T/T	8.7 ~10.4	14/FV	20 ~ 80	-29/100	NA	70		CS + 3mm CA (Internal Epoxy Coated) BUNDLE : SS316	100478CP-N-PG-PP01-PR-PID-0010-001			
12	PP01-362-F001	Particle Filter	EPP	24,000 Kg/h	1	850 mm (I.D.) x 2000 mm T/T	8.7 ~10.4	14/FV	20 ~ 80	-29/100	NA			CS + 3mm CA (Internal Epoxy Coated)	100478CP-N-PG-PP01-PR-PID-0010-001			
13	PP01-363-C101	1st Fuel Gas Compressor	EPP	30,000 Kg/h	1	3600 mm (W) x 10000 mm (L)	6.95 ~ 29	35	20 ~ 172	-20/200	1960			Casing : CS Rotor: CS Shaft: SS	100478CP-N-PG-PP01-PR-PID-0011-001			
14	PP01-363-V101	1st Fuel Gas Compressor Suction KO Drum	EPP	30,000 Kg/h	1	2160 mm (ID) x 4000 mm (H)	7.25 ~ 9.0	35/FV	20 ~ 100	-20/150	-			CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0011-001			
15	PP01-363-H102	1st Fuel Gas Compressor Recycle Cooler	EPP	30,000 Kg/h	1	Bay Width : 3743 mm Tube Length: 7000 mm (L)	7.5 ~ 8.5	35	35 ~ 120	-20/150	18.5	1264		SS316L (Tube) Headers: SS316L	100478CP-N-PG-PP01-PR-PID-0011-001			
16	PP01-363-H101	1st Fuel Gas Compressor Discharge Cooler	EPP	30,000 Kg/h	1	Bay Width : 1783 mm Tube Length: 3657.6 mm (L)	29	35	105 ~ 180	-20/200	5.5	694.6		SS316L (Tube) Headers: SS316L	100478CP-N-PG-PP01-PR-PID-0011-002			
17	PP01-363-V102	1st Fuel Gas Compressor Discharge KO Drum	EPP	30,000 Kg/h	1	1200 mm (ID) x 3000 mm (H)	29	35/FV	105 ~ 120	-20/150				CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0011-002			
18	PP01-363-C201	2nd Fuel Gas Compressor	EPP	30,000 Kg/h	1	3600 mm (W) x 10000 mm (L)	6.95 ~ 29	35	20 ~ 180	-20/200	1960			Casing : CS Rotor: CS Shaft: SS	100478CP-N-PG-PP01-PR-PID-0011-003			
19	PP01-363-V201	2nd Fuel Gas Compressor Suction KO Drum	EPP	30,000 Kg/h	1	2160 mm (ID) x 4000 mm (H)	7.25 ~ 9.0	35/FV	20 ~ 100	-20/150	-			CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0011-003			

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		EQUIPMENT LIST															
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SI. No.	EQUIPMENT TAG NO		EQUIPMENT DESCRIPTION	EQUIPMENT LOCATION	Design Capacity	Quantity (No.)	Dimensions	Operating Pressure (Barg)	Design Pressure (Barg)	Operating Temp. (°C)	Design Temp. (°C)	Motor Power (KW)	Heat Duty (KW)	MOC + C.A.	P&ID	REMARKS	
20	PP01-363-H202		2nd Fuel Gas Compressor Recycle Cooler	EPP	30,000 Kg/h	1	Bay Width : 3743 mm Tube Length: 7000 mm (L)	7.5 ~ 8.5	35	35 ~ 120	-20/150	18.5	1264	SS316L (Tube) Headers: SS316L	100478CP-N-PG-PP01-PR-PID-0011-003		
21	PP01-363-H201		2nd Fuel Gas Compressor Discharge Cooler	EPP	30,000 Kg/h	1	Bay Width : 1783 mm Tube Length: 3657.6 mm (L)	29	35	105 ~ 180	-20/200	5.5	694.6	SS316L (Tube) Headers: SS316L	100478CP-N-PG-PP01-PR-PID-0011-004		
22	PP01-363-V202		2nd Fuel Gas Compressor Discharge KO Drum	EPP	30,000 Kg/h	1	1200 mm (ID) x 3000 mm (H)	29	35/FV	105 ~ 120	-20/150			CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0011-004		
23	PP01-363-C301		3rd Fuel Gas Compressor	EPP	30,000 Kg/h	1	3600 mm (W) x 10000 mm (L)	6.95 ~ 29	35	20 ~ 180	-20/200	1960		Casing : CS Rotor: CS Shaft: SS	100478CP-N-PG-PP01-PR-PID-0011-005		
24	PP01-363-V301		3rd Fuel Gas Compressor Suction KO Drum	EPP	30,000 Kg/h	1	2160 mm (ID) x 4000 mm (H)	7.25 ~ 9.0	35/FV	20 ~ 100	-20/150	-		CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0011-005		
25	PP01-363-H302		3rd Fuel Gas Compressor Recycle Cooler	EPP	30,000 Kg/h	1	Bay Width : 3743 mm Tube Length: 7000 mm (L)	7.5 ~ 8.5	35	35 ~ 120	-20/150	18.5	1264	SS316L (Tube) Headers: SS316L	100478CP-N-PG-PP01-PR-PID-0011-005		
26	PP01-363-H301		3rd Fuel Gas Compressor Discharge Cooler	EPP	30,000 Kg/h	1	Bay Width : 1783 mm Tube Length: 3657.6 mm (L)	29	35	105 ~ 180	-20/200	5.5	694.6	SS316L (Tube) Headers: SS316L	100478CP-N-PG-PP01-PR-PID-0011-006		
27	PP01-363-V302		3rd Fuel Gas Compressor Discharge KO Drum	EPP	30,000 Kg/h	1	1200 mm (ID) x 3000 mm (H)	29	35/FV	105 ~ 120	-20/150			CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0011-006		
28	PP01-364-IMS001		Fuel Gas Metering Package	EPP	60,000 Kg/h	1		28 ~ 28.9	35	105 ~ 120	-20/150	NA		CS - (piping) SS316L - (Flow Meter)	100478CP-N-PG-PP01-PR-PID-0012-001		
29	PP01-361-V005		DS-3 Gas Pipeline KO Drum	EPP	60,000 Kg/h	1	2000 mm (I.D.) x 4000 mm (L)	10	45/FV	20 ~ 80	-29/100	NA		CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0049-001		
Instrument Air Distribution System																	
30	PP01-564-Z001		Air Compressor Package (3 x 50%)	EPP	1750 Nm³/h (875 Nm³/h each compressor)	3	12000 mm (W) x 15000 mm (L)	10	12	12 ~ 63	-2/85	VTA		By Vendor	100478CP-N-PG-PP01-PR-PID-0025-001		
31	PP01-564-V001		Instrument Air Receiver	EPP	500 Nm³/h	1	3650 I.D. x 6850 mm T/T	8.5 ~9.4	12	12 ~ 63	-2/85	VTA		CS + 1.5mm CA	100478CP-N-PG-PP01-PR-PID-0025-003		
Nitrogen Generation System																	
32	PP01-567-Z001		Nitrogen Generation Package	EPP	250 Nm3/h of Nitrogen	1	12000 mm (W) x 12000 mm (L)	8.5 ~ 9.4	12	12 ~ 63	-2/85	VTA		By Vendor	100478CP-N-PG-PP01-PR-PID-0026-001		
33	PP01-567-V001		Nitrogen Receiver	EPP	422 Nm3/h of Nitrogen	1	4500 mm (I.D.) x 8000 mm T/T	6.5 ~ 8.4	12	12 ~ 63	-2/85	NA		CS + 1.5mm CA	100478CP-N-PG-PP01-PR-PID-0026-002		

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Sl. No.	EQUIPMENT TAG NO	EQUIPMENT DESCRIPTION	EQUIPMENT LOCATION	Design Capacity	Quantity (no.).	Dimensions	Operating Pressure (Barg)	Design Pressure (Barg)	Operating Temp. (°C)	Design Temp. (°C)	Motor Power (KW)	Heat Duty (KW)	MOC + C.A.	P&ID	REMARKS	
Diesel Fuel System																
34	PP01-560-T001	Diesel Storage Tank (Note-3)	EPP	23.9 m ³	1	4000(I.D) × 3000 mm(H)	ATM	0.1 / -0.006	AMB	-2 / 85	NA		CS + 3 mm CA (Shell) CS + 1.5mm (Roof) (Internal Epoxy Coating)	100478CP-N-PG-PP01-PR-PID-0027-001		
35	PP01-560-P001 A	Diesel Transfer Pumps	EPP	4m ³ /h	1+1 Warehouse Spare	NA	1.78	3.5	AMB	-2 / 85	3		CS + 13% Cr -(Impeller) CS - (Casing)	100478CP-N-PG-PP01-PR-PID-0027-001		
Raw Water, Service Water, Fire Water and Demineralization Water System																
36	PP01-554-T001	Raw Water Storage Tank (Note-3)	EPP	903 m ³	1	10000(I.D) × 13000 mm(H)	ATM	0.01 + Full of Water / -0.006	5 ~ 35	-2/85	NA		CS + 3 mm CA (Shell) CS + 1.5mm (Roof) (Internal Epoxy Coating)	100478CP-N-PG-PP01-PR-PID-0028-001		
37	PP01-553-T001	Service Water Storage Tank (Note-3)	EPP	100 m ³	1	5300(I.D) × 5000 mm(H)	ATM	0.01 + Full of Water / -0.006	5 ~ 35	-2/85	NA		CS + 3 mm CA (Shell) CS + 1.5mm (Roof) (Internal Epoxy Coating)	100478CP-N-PG-PP01-PR-PID-0029-001		
38	PP01-553-P001 A/B	Service Water Pumps	EPP	17.6 m ³ /h	2	NA	5.8	8.0	AMB	-2/85	11		Casing: Cast Iron Impeller: Bronze	100478CP-N-PG-PP01-PR-PID-0029-001		
39	PP01-553-Z101/201	RO (Reverse Osmosis) Package	EPP	3.0 m ³ /h of Permeate	1	NA	By Vendor	By Vendor	5 ~ 35	-2/85	By Vendor		By Vendor	100478CP-N-PG-PP01-PR-PID-0028-001		
40	PP01-555-Z001	Demineralization Water Package	EPP	1.0 m ³ /h	1	NA	By Vendor	By Vendor	5 ~ 35	-2/85	By Vendor		By Vendor	100478CP-N-PG-PP01-PR-PID-0030-001		
41	PP01-550-Z001	Potable Water Sterilization Package	EPP	12.0 m ³ /h	1	NA	5.8	8.0	5 ~ 35	-2/85	NA		By Vendor	100478CP-N-PG-PP01-PR-PID-0029-001		
Flare System																
42	PP01-500-Z001	HP / LP Flare Package	EPP	148000 kg/h / 5000 kgh	1	HP flare Dimensions: 1371.6mm OD (Lower Section) 965.2mm OD (Middle Section) 609.6mm OD (Upper Section) Overall Height including HP Flare Tip: 27.432m LP Flare Dimensions: 8 inch Dia. Overall Height including LP Flare Tip: 27.432m	0.1 ~ 3.6 (HP) / 0.1 (LP)	10 (HP) / 10 (LP)	30 ~ 164 / 3.7 ~ 108.5	-29/200 (HP) / -2/150 (LP)	NA		HP Flare Riser: A516 Gr.70N LP Flare Riser: A106 Gr.B HP/LP Flare Tip: SS310	100478CP-N-PG-PP01-PR-PID-0023-001		
43	PP01-500-V001	HP Flare Knock-Out Drum	EPP	25 m ³	1	2350 I.D. × 5000 mm T/T	0.1 ~ 3.6	10/FV	30 ~ 164	-29/200	NA		CS + 3mm CA (Internal Epoxy Ceramic Coating)	100478CP-N-PG-PP01-PR-PID-0022-001		
Condensate System																
44	PP01-512-V001	Condensate Storage Vessel	EPP (Utility Area)	43 m ³	1	2700 mm (I.D) × 7800 mm (L)	0.1 ~ 1.0	10/FV	120	-20/150	NA		CS+3mm CA (With NACE & Epoxy Lined)	100478CP-N-PG-PP01-PR-PID-0024-001		
45	PP01-375-P001A/B	Condensate Transfer Pumps	EPP (Utility Area)	15 m ³ /h	2	NA	1.84	3.8	18/120	-20/150	7.5		Casing: SS316 Impeller: SS316	100478CP-N-PG-PP01-PR-PID-0024-001		
46	PP01-375-T001	Condensate Transfer Tank (Note-3)	EPP (Utility Area)	94 m ³	1	6000 mm (ID) x 4000 mm (H)	0.01~0.08	0.172/-0.006	18 ~ 72	93	NA		CS +3mm CA (Epoxy Lined)	100478CP-N-PG-PP01-PR-PID-0024-002		
47	PP01-375-P002A/B	Condensate Export Pumps	EPP (Utility Area)	20 m ³ /h	2	NA	13.6	27	18/72	93	37		Casing: SS316 Impeller: SS316	100478CP-N-PG-PP01-PR-PID-0033-001	15 m ³ /h is the pump forward flow.	
Chemical Injection Packagae																
48	PP01-520-Z101	Corrosion Inhibitor Injection Package DS-1	Outside DS-1	1.4 LPH	1	1000 L x 1000 W x 1200 H	16.5	45	AMB	85	0.55		Body: SS316L Diaphragm: PTFE	100478CP-N-PG-PP01-PR-PID-0031-001		
49	PP01-520-Z201	Corrosion Inhibitor Injection Package DS-3	Outside DS-3	1.4 LPH	1	1000 L x 1000 W x 1200 H	16.5 ~ 35.9	45	AMB	85	0.55		Body: SS316L Diaphragm: PTFE	100478CP-N-PG-PP01-PR-PID-0031-002		
Fire Water																
50	PP01-610-T001	Fire Water Storage Tank (Note-3)	EPP	1817m ³	1	13500 mm (ID) x 15000 mm (H)	ATM	0.01+ full of water/ -0.006	5 ~ 35	-2/85			CS + 3mm CA	100478CP-N-PG-PP01-SR-PID-0001-001		
51	PP01-610-Z001	Electric Motor Driven Fire Water Pump	EPP	454 m ³ /h	1	1082mm (W) x 2000mm (L)	9.34	60	5 ~ 35	-2/85	190		Casing: CS Impeller: Bronze (VTC)	100478CP-N-PG-PP01-SR-PID-0002-001		
52	PP01-610-Z002	Diesel Engine Driven Fire Water Pump	EPP	454 m ³ /h	1	1199mm (W) x 2500mm (L)	9.4	60	5 ~ 35	-2/85	NA			100478CP-N-PG-PP01-SR-PID-0002-001		
53	PP01-610-Z003	Jockey Pumps Skid	EPP	30 m ³ /h	1	By Vendor	9.9	18	5 ~ 35	-2/85	25			100478CP-N-PG-PP01-SR-PID-0003-001		
GTG Package																
54	PP01-700-Z101/201/301/401/501	GTG Package	EPP	30MW - min 42.1MW - ISO	5	40000mm (W) x 50000mm (L)			-2/55		30MW - min 42.1MW - ISO		Note-6	100478CP-1-ME-001-C03-0001 ~ 0021		
Emergency Generator Package																
55	PP01-740-GD001	Emergency Diesel Generator Set	EPP	5.496 Mwe	1	5100mm (W) x 12300mm (L)			-2/55		5.496 Mwe		Note-7			
Oily Water Drains Lift Station FG Compressor Area																
56	PP01-511-P002A/B	AOC Sump Pumps - FG Compressor Area	EPP	230 m ³ /h	2	NA	1.28	3.5	10 ~ 50	-2 / 55	18.5		Casing: DSS Impeller: DSS	100478CP-N-PG-PP01-PR-PID-0046-001		
Oily Water Drains Lift Station Utility Area																
57	PP01-511-P001A/B	AOC Sump Pumps -Utility Area	EPP	82 m ³ /h	2	NA	2	3.5	10 ~ 50	-2 / 55	15		Casing: DSS Impeller: DSS	100478CP-N-PG-PP01-PR-PID-0047-001		
Sewage Treatment System																
58	PP01-569-Z001	Sewage Treatment Package	EPP	11 m ³ /day	1	By Vendor		3.5		85			By Vendor	100478CP-N-PG-PP01-PR-PID-0048-001		
59	PP01-569-P001A/B	Sewage Sump Pumps	EPP	10 m ³ /h	2	NA	1.72	3.5	10 ~ 50	-2 / 55	By Vendor		Casing: CI Impeller: Bronze	100478CP-N-PG-PP01-PR-PID-0048-001		

