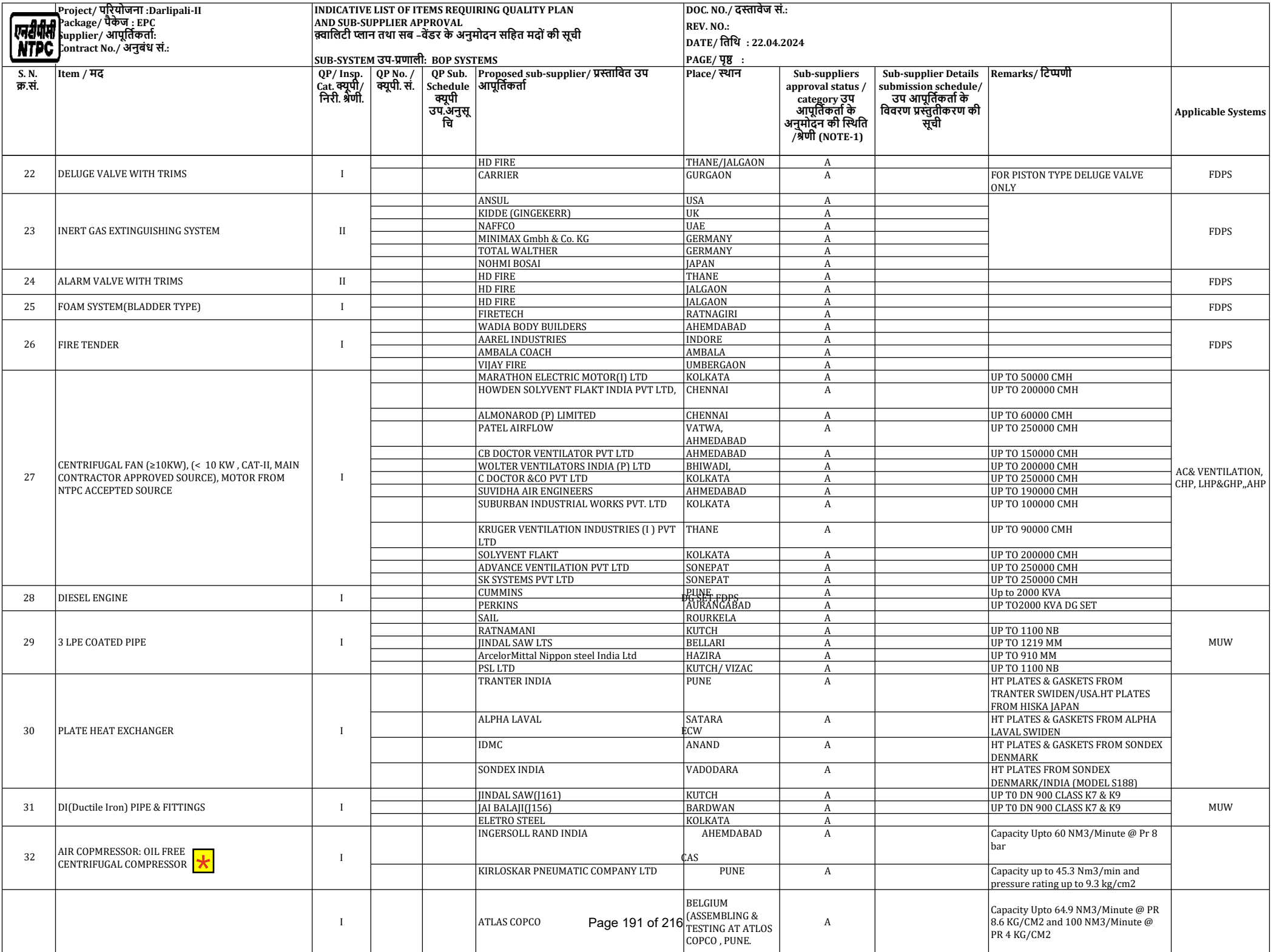




एनटीपीसी NTPC Project/ परियोजना :Darlipali-II Package/ पैकेज : EPC Supplier/ आपूर्तिकर्ता: Contract No./ अनुबंध सं.:		INDICATIVE LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL ब्रवालिटि प्लान तथा सब -वेंडर के अनुमोदन सहित मदों की सूची				DOC. NO./ दस्तावेज सं.: REV. NO.: DATE/ तिथि : 22.04.2024 PAGE/ पृष्ठ :		Remarks/ टिप्पणी	Applicable Systems
S. N. क्र.सं.	Item / मद	QP/ Insp. Cat. क्यूपी/ निरी. श्रेणी.	QP No. / क्यूपी. सं.	QP Sub. Schedule क्यूपी उप.अनुसू चि	Proposed sub-supplier/ प्रस्तावित उप आपूर्तिकर्ता	Place/ स्थान	Sub-suppliers approval status / category उप आपूर्तिकर्ता के अनुमोदन की स्थिति /श्रेणी (NOTE-1)	Sub-supplier Details submission schedule/ उप आपूर्तिकर्ता के विवरण प्रस्तुतीकरण की सूची	
33	OIL FREE SCREW TYPE AIR COMPRESSORS *	I			INGERSOL RAND INDIA	AHMEDABAD	A	Flow up to 50Nm3/Min, Pr. up to 8 kg/cm2, Air ends from Ingersoll Rand -China and all other components shall be sourced from NTPC acceptable sources. ASSEMBLY & TESTING AT INGERSOLL- AHMEDABAD	CAS, CHP, LHP, GHP, MRHS, AHP
		I			ELGI	COIMBATORE	A	Flow up to 60Nm3/Min, Pr. up to 8 kg/cm2,	
		I			AERZEN MACHINES	VADODARA	A	6520 M3/Hr @ 2.58 bar	
		I			KIRLOSKER PNEUMATIC COMP LTD	PUNE	A	FLOW CAPACITY 45.3 NMS/MIN , AND PRESSURE RATING 9.3 KG/CM2	
34	AIR DRYER *	I			SUMMITS HYGRONICS	COIMBATORE	A	FOR REFRIGERANT DRYER, 11893 M3/HR , REGENERATIVE DRYERS BLOWER REACTIVATED TYPE 2123 M3/HR AND REGENERATIVE DRYERS HOC TYPE 5820 M3/HR	CAS
					MELLCON ENGRS PVT LTD	GR NOIDA	A	Refrigerant type 7285 m3/hr & REGENERATIVE DRYERS HOC TYPE 2548 M3/HR	
					DELAIR INDIA LTD	GURGAON	A	Refrigerant type 7500 m3/hr & REGENERATIVE DRYERS HOC TYPE 3000 M3/HR	
					SUMESH PETROLEUM	VADODARA	A	100 CFM(169 M3/HR) & 7 KG/CM2	
					ATLAS COPCO	BELGIUM(ASSLY & TESTING AT PUNE)	A	MODEL UP TO FD1200	
					INDCON	DELHI	A	Regenerative dryer2500 m3/hr HOC & DECICANT TYPE	
					TRIDENT PNEUMATIC PVT LTD	COIMBATORE	A	Refrigerant type 10000 m3/hr & REGENERATIVE DRYERS BHR TYPE 1000 M3/HR	
35	SCREW CHILLER	II			KIRLOSKAR CHILLER	PUNE	A	UP TO 350TR	AC& VENTILATION
					DAIKIN	NEEMRANA	A	UP TO 185 TR	
					KIRLOSKAR CHILLER PVT LTD	PUNE	A	Up to 350TR	
					BLUE STAR (COMPRESSOR FROM HANBEL- TAIWAN)	WADA	A	SCREW CHILLER UP TO 282TR	
36	Mettalic Expansion Bellows	II			MB METTALIC BELLOWS	CHENNAI	A		MRHS
					SUR Industries	KOLKATA	A		
					LONE STAR	CHENNAI	A		
37	Conveying Compressor (Reciprocating)	I			KIRLOSKAR PNEUMATICS	PUNE	A		MRHS
					INGERSOLL RAND	AHEMDABAD	A		
					ATLAS COPCO(CHICAGO PNEUMATIC BRAND)	PUNE	A		
38	ALLOY CAST IRON PIPE, FITTINGS AND LINER	III			CRAWLEY & RAY	KOLKATA	A		MRHS, AHP
					ALLIED FOUNDRIES	BELGAUM	A		
					PARAMOUNT CASTINGS	NAGPUR	A		
					NORTHERN ALLOY	BHAVNAGAR	A		
					MENON METALLIK	KOLHAPUR	A		
					KOLHAPUR STEEL	KOLHAPUR	A		
					AQUA ALLOY	KOLHAPUR	A		
					MARTO PEARL	HYDERABAD	A		
					R.R.L	HOWRAH	A		
					CONCAST ENGINEERING	BURDWAN, WB	A		
					NATRAJ IRON & CASTINGS	DHANBAD	A		
					ETA Manufacturers Private Limited	Bahadurpur	A		

* Air Compressor & Air Dryer are PQ equipment. Refer Technical PQR for vendor qualification/ approval.

 एन टी पी सी एक महानदी का कर्मचारी		PROJECT :DARLIPALI-II(1X800MW)					LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB SUPPLIER APPROVAL				REVISION NO : 00		
		PACKAGE : EPC									DATE :31.03.2024		
		CONTRACTOR:									SUB SECTION: QA-TG(MECH)		
		CONTRACT NO :											
Sr No	Item Description	QP Inspection Category	QP No	QP submission SCH	QP approval SCH	Proposed Sub Supplier	Country	SS Approval_Status	SS Detail Sub.SCH	SS Approval SCH	Remark	Package Applicable	Provenness Clause (Refer Note-1)
						MEGA	Italy	A			For Fittings Only		
						Petrol Raccord,	Italy	A			UP TO 24INCH IN CS MATERIAL & UP TO 18 INCH IN AS MATERIAL		
						Benkan Japan KK	Japan	A			UP TO 24INCH IN CS MATERIAL		
50	Elastomer Large Bellows or Flexibles Rubber Bellows	I				Cori Engineers Pvt. Ltd.	Chennai	A			UP TO 2700 NB		
						SRM Ecoflex	Kolkata	A			UP TO 2700 NB		
						KSB	Germany	A					
						Nasosenergomash	Ukraine	A					
51	Heater Drains Recovery Pumps (Drip Pump)	I				Sulzer Pumps	Mumbai	A					
						KSB	Pune	A					
						Hyundai	S Korea	A					
						KBL	Pune	A					
						Flowserve	Coimbatore	A					
52	Debris Filter/ Self Cleaning Strainer	I				GEA-BGR	Chennai	A					
						Multitex	Gr.Noida	A					
						Remi	Tarapur,India	A			SS		
						Apex	Alwar	A			SS (up to 150NB)		
						Ratnamani	Ahmedabad	A			SS		
						ISMT	India	A			CS (up to 400 NB)		
						Maharashtra Seamless Ltd.	Maharashtra	A			CS (up to 400 NB)		
						Tube Products Incorporate	Ahmedabad	A					
						TK Corporation	S Korea	A					
						Dee development	Palwal	A					
						Jindal Saw	India	A			CS (up to 400 NB)		
						Tata	India	A			ERW		
						Surya	India	A			ERW		
						JINDAL PIPES LTD	India	A			ERW		
						WELSPUN	India	A			ERW		
						Lalit Pipes & pipes Ltd.,	Thane	A			EFW Pipes		
						Ratnamni Metals and Tubes Ltd.,	Gandhinagar	A			EFW Pipes		
						Fouress Engg. *	Bangalore	A			upto 2600 NB		
						IL *	Palakkad	A			upto 2200 NB		
						BHEL *	Bhopal, India	A					
						Kriloskar Bros. Ltd	Pune	A					
						L&T	Chennai	A					
						Trillium Flow	Hubli	A					
						Tyco	Halol	A					
						L&T	Coimbatore	A					
						Nengfa Weiye Tieling Valve Joint Stock Co. Ltd.	China	A					
						Intervalve	Pune	A					
						L&T	Chennai/ Coimbatore	A					
						Velan	Canada/ Coimbatore	A					
						KSB	Germany/ Coimabtore	A					
						ToA	Japan	A					
						Fouress Engg	Aurangabad	A					
						Trillium Flow	Hubli	A					
						Crane	USA	A					
						Samshin	S Korea	A					
						KBL	Pune	A					
						Weir	UK	A					
55	Valves (gate/ globe/check) for LP application	I											

Project/ परियोजना :Darlipali-II Package/ पैकेज : EPC Supplier/ आपूर्तिकर्ता: Contract No./ अनुबंध सं.: 		INDICATIVE LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL गुणवलिटी प्लान तथा सब -वेंडर के अनुमोदन सहित मदों की सूची				DOC. NO./ दस्तावेज सं.: REV. NO.: DATE/ तिथि : 22.04.2024 PAGE/ पृष्ठ :				
S. N. क्र.सं.	Item / मद	QP/ Insp. Cat. क्यूपी/ निरी. श्रेणी.	QP No. / क्यूपी. सं.	QP Sub. Schedule क्यूपी उप.अनुस् चि	Proposed sub-supplier/ प्रस्तावित उप आपूर्तिकर्ता	Place/ स्थान	Sub-suppliers approval status / category उप आपूर्तिकर्ता के अनुमोदन की स्थिति /श्रेणी (NOTE-1)	Sub-supplier Details submission schedule/ उप आपूर्तिकर्ता के विवरण प्रस्तुतीकरण की सूची	Remarks/ टिप्पणी	Applicable Systems
8	PUMPS -VT -UP TO 300KW	I			KIRLOSKAR BROTHERS LIMITED	KIRLOSKARWADI	A			WTP, CW
					WPIL LTD	KOLKATA	A			
					WPIL LTD	GHAZIABAD	A			
					JYOTI LTD	VADODARA	A			
					XYLEM WATER SOLUTIONS INDIA PVT LTD	VADODARA	A			
					FLOWSERVE INDIA CONTROLS PVT LTD	COIMBATORE	A		UP TO 1025 KW	
					SINTECH PRECISION	GHAZIABAD	A			
9.A	VALVE-DUAL PLATE CHECK > 600MM OR CLASS > 300 (VALVE- DUAL PLATE CHECK UP TO 600MM & CLASS 300: CAT-II & MAIN CONTRACTOR APPROVED SOURCES)	I			WILO MATHER & PLATT ADVANCE VALVE PVT LTD	PUNE GR. NOIDA	A A		DUAL PLATE CHECK VALVES CI UPTO 1000 NB CLASS 125, DUPLEX SS UP TO 600NB CLASS 600.	WTP,CW, CPU,FDPS,CAS,LP PIPING
					LEADER VALVES	JALANDHAR	A		UP TO 900MM CLASS 150 , SS 200NB CLASS#300	
					R & D MULTIPLE SWIMS TECHNOLOGIES	VALSAD HUBLI	A A		CI/ CS UP TO 800NB PN 10 SS BALL VALVES UP TO 500MM AND CLASS #600, CS BALL VALVES UP TO 250 MM AND CLASS# 900, CS/ SS BALL VALVES UP TO 100 MM AND CLASS # 1500.	
9.B	VALVE-BALL > 100 MM OR CLASS > 800; (VALVE- BALL UP TO 100 MM & CLASS 800:CAT-II & MAIN CONTRACTOR APPROVED SOURCES)	I			MICRO FINISH VALVES PVT. LTD.	HUBLI	A		400NB CLASS#600 AND UP TO 600NB CLASS#300	WTP, CPU,FDPS,CAS,FOH,C HP,LHP&GHP,AHP
					FLOW CHEM INDUSTRIES	KALOL	A		100NB CLASS#600,200NB CLASS#300, 50 NB CLASS#800	
					L&T VALVES LIMITED	COIMBATORE	A		UPTO 150NB, CLASS #150/300, AND UPTO 50NB, CLASS #800	
					PRECISSION ENGG CO VALVES PVT LTD	NASIK	A		FCS UP TO 50NB CLASS 800, CCS UP TO 400NB CLASS 150.	
					WELLCAST INDUSTRIES	AHMEDABAD	A		SIZE 150 NB & PR CLASS 150	
					A V VALVES	AGRA	A		size up to 250 NB & Class 150	
					BELGAUM AQUA VALVE PVT LTD	BELGAON	A		FCS UP TO 50NB CLASS 800, CCS UP TO 200NB CLASS 150.	
					G M ENGINEERING PRIVATE LTD	RAJKOT	A		UP TO 400 NB AND CLASS #600	
9.C	VALVE-BUTTERFLY > 600MM OR CLASS>150 (VALVE-BUTTERFLY UP TO 600MM & CLASS 150::CAT-II & MAIN CONTRACTOR APPROVED SOURCES)	I			INTERVALVE POONAWALA LTD	PUNE	A		SGI / CI / D2 1400MM PN10, SGI / CI 1000MM PN16,CS/SS 500MM PN16, SS 400MM CLASS#300, MS FABRICATED UPTO 2000NB, PN 6	WTP, CW,CT,CPU,FDPS,CA S, AC& VENTILATION, MUW,CHP, LHP&GHP,LP PIPING,AHP
					SWIMS TECHNOLOGIES	HUBLI	A		CI/ DI BUTTERFLY VALVE UP TO 1000MM AND PN16 AND UP TO 1800MM AND PN10,CCS UP TO 1050MM CLASS 150 AND UP TO 1800MM AND PN16 SS - UP TO 400NB PN-16 ,FABRICATED 800MM CLASS#150.	
					PENTAIR VALVES	HALOL	A		FOR SS UP TO 500 NB PN-10, CI- UP TO 900NB PN-10, UP TO 500NB PN-16, 450MM CLASS#300., MS FABRICATED UPTO 2800NB, PN6.	
					FOURES ENGINEERING	BANGALORE	A		CAST SGI/CI/ MS FABRICATED- UP TO 1200 PN-10, UP TO 350 PN-16 ,2400 MM PN6/CLASS150 SS - UP TO 300NB PN-10,MS FABRICATED UPTO 2700NB CLASS # 75	
					KIRLOSKAR BROTHERS LTD	KIRLOSKERWADI	A		CAST SGI/CI/CS 1400 MM PN16 , SS 300 MM PN16 , 1800MM CLASS 150, MS FABRICATED 900 NB PN40,MS FABRICATED 2800NB, PN6.	

Page 194 of 216

 Project/ परियोजना :Darlipali-II Package/ पैकेज : EPC Supplier/ आपूर्तिकर्ता: Contract No./ अनुबंध सं.:		INDICATIVE LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL गुणवत्ता योजना तथा सब -वेंडर के अनुमोदन सहित मदों की सूची				DOC. NO./ दस्तावेज सं.: REV. NO.: DATE/ तिथि : 22.04.2024 PAGE/ पृष्ठ :				
S. N. क्र.सं.	Item / मद	QP/ Insp. Cat. क्यूपी/ निरी. श्रेणी.	QP No. / क्यूपी. सं.	QP Sub. Schedule क्यूपी उप.अनुसूचि	Proposed sub-supplier/ प्रस्तावित उप आपूर्तिकर्ता	Place/ स्थान	Sub-suppliers approval status / category उप आपूर्तिकर्ता के अनुमोदन की स्थिति /श्रेणी (NOTE-1)	Sub-supplier Details submission schedule/ उप आपूर्तिकर्ता के विवरण प्रस्तुतीकरण की सूची	Remarks/ टिप्पणी	Applicable Systems
					R & D MULTIPLE	VALSAD	A		CAST SGI/CI/MS FABRICATED- UP TO 1800 MM PN-10/CLASS # 75, ,1100MM PN25,1400MM CLASS#150 ,MS FABRICATED UPTO 2800NB CLASS # 75	
					ADVANCE VALVES PVT LTD	GREATER NOIDA	A		METAL SEATED, TRIPLE ECCENTRIC, SS BFFV OF SIZE UPTO 100NB, AND PRESSURE RATING UPTO CLASS #300.	
					BRAY CONTROLS INDIA PVT. LTD	KANCHIPURAM	A		UPTO 450 MM AND CLASS#600	
					INSTRUMENTATION LTD.	PALAKKAD	A		UPTO 2200NB CLASS # 75	
					HAWA ENGINEERS	AHMEDABAD	A		CI/ CS & FABRICATED UPTO 1200MM, CLASS #150, SS UPTO 250MM, CLASS#150	
					CRANE PROCESS FLOW	SATARA	A		UP TO 900MM PN10	
					L & T VALVES LIMITED	COIMBATORE	A		UP TO 900MM CLASS 150	
					DEMBLA VALVES	THANE	A		UP TO 2200MM CLASS#75	
					LEADER VALVES	JALANDHAR	A		CS GATE 600MM CLASS#600, SS GLOBE 600MM CLASS#600, CS CHECK 600MM AND CLASS#600	
					HAWA ENGINEERS	AHMEDABAD	A		FCS / FSS 50 NB CLASS 800.	
					FOURES ENGINEERINGS	THANE	A		400NB CLASS 600 AND 50NB CLASS 800.	
					BHEL IVP	GOINDWAL	A		GATE UP TO 300 NB CLASS 600. GLOBE 250 NB CLASS 400, CHECK 150NB CLASS 600.	
					HITECH ENGG PVT LTD	AHEMDABAD	A		50 NB CLASS 800.	
					KSB PUMPS LTD	COIMBATORE	A		300NB CLASS 2500.	
					NITON VALVES INDIA PVT LTD	NAVI MUMBAI / AURANGABAD	A		CS GATE 900 NB CLASS 600, CHECK 300 NB CLASS 600.	
					L&T VALVES LIMITED	COIMBATORE	A		650 MM CLASS 600, 50 NB CLASS 800.	
					SWIMS TECHNOLOGIES	HUBLI	A		CONVENTIONAL CCS GATE / GLOBE / CHECK VALVES UP TO 600MM AND CLASS # 1500, CSS GATE/ GLOBE/ CHECK VALVES UP TO 200MM AND CLASS # 600, FCS GATE / GLOBE / CHECK VALVES UP TO 50MM AND CLASS # 2500.	
					CRANE PROCESS FLOW	SATARA	A		UP TO 300NB PN10	
					SWIMS TECHNOLOGIES	HUBLI	A		UPTO 250 NB - PN 10, 350MM PN6	
					PROCON ENGINEERS	MUMBAI	A		UPTO 200 NB AND PN 10/CLASS #150 & 250NB- PN-6 RATING	
					SWIMS TECHNOLOGIES	HUBLI	A		SOFT SEATED 400MM AND CLASS #150, 300NB CLASS#300	
					XOMOX SANMAR	TRICHY	A		UP TO 600MM AND CLASS#300	
					FLOWSERVE INDIA CONTROLS	CHENNAI	A		METALLIC SEATED 400NB CLASS#150, 300NB CLASS #300, 50NB CLASS #800	
					KSB	NASHIK	A		130 KW	
					KIRLOSKAR BROTHERS LTD	KIRLOSKARWADI	A			
					AQUA MACHINERY	AHMEDABAD	A		UP TO 235 KW	
					WPIL	GHAZIABAD	A			
					CORI ENGINEERS PVT LTD	CHENNAI	A		UPTO 2800 MM	
					SRM EXOFLEX PVT LTD	AKOL, KOL, CW,CT	A		UPTO 2800 MM	
					Cooldeck	Daman	A			CT
					PAHARPUR COOLING TOWER LIMITED	SAHIBABAD	A			CT
					MM Aqua	Gurgaon	A			CT
					Enexio Power cooling solutions ,	Thiruvallur(TN)	A		NF20	CT

 Project/ परियोजना :Darlipali-II Package/ पैकेज : EPC Supplier/ आपूर्तिकर्ता: Contract No./ अनुबंध सं.:		INDICATIVE LIST OF ITEMS REQUIRING QUALITY PLAN AND SUB-SUPPLIER APPROVAL ग्वालिटी प्लान तथा सब -वेंडर के अनुमोदन सहित मदों की सूची				DOC. NO./ दस्तावेज सं.: REV. NO.: DATE/ तिथि : 22.04.2024 PAGE/ पृष्ठ :				Applicable Systems
S. N. क्र.सं.	Item / मद	QP/ Insp. Cat. क्यूपी/ निरी. श्रेणी.	QP No. / क्यूपी. सं.	QP Sub. Schedule क्यूपी उप.अनुसू चि	Proposed sub-supplier/ प्रस्तावित उप आपूर्तिकर्ता	Place/ स्थान	Sub-suppliers approval status / category उप आपूर्तिकर्ता के अनुमोदन की स्थिति /श्रेणी (NOTE-1)	Sub-supplier Details submission schedule/ उप आपूर्तिकर्ता के विवरण प्रस्तुतीकरण की सूची	Remarks/ टिप्पणी	
4	PIPES-MS- (BLACK/ GI) AS PER IS IS:3589 >1000NB	I			MAN INDUSTRIES	INDORE	A		SAW UPTO 1400 NB	
					SAMSHI	VADODARA	A		SAW 450 TO 2540 NB	
					MUKAT TANKS & VESSELS	TARAPUR	A		SAW 200 TO 1200 NB	
					MUKAT PIPES	RAJPUTRA	A		SAW UPTO 1800 NB	
					LALIT PIPES AND PIPES LTD	THANE	A		SAW 350 TO 1400 NB	
					RATNAMANI	CHATRAL	A		SAW 600 TO 2600 NB	
					RATNAMANI	KUTCH MUW	A		SAW 400 TO 3600 NB	
					PSL HOLDINGS LIMITED	DAMAN	A		SAW 450 TO 1600 NB	
					PSL INTERNATIONAL LTD.	CHENNAI	A		SAW 450 TO 1600 NB	
					PSL LIMITED	KUTCH	A		SAW 450 TO 1600 NB	
					PSL LIMITED	VISAKHAPATNAM	A		SAW 450 TO 1600 NB	
					JCO PIPES	CHHINDWARA	A		SAW UPTO 1600 NB	
					SURYA ROSHNI	ANJAR	A		SAW UP TO 2032 OD	
					JINDAL SAW LTD	BELLARY	A		SAW UP TO 3632 OD , THICKNESS 16 MM	
					CAPACITE STRUCURES PVT LTD	THANE	A		406.4 MM TO 3874 MM OD	
5	PIPES & FITTINGS-GRP	I			EPP COMPOSITES PVT LTD	RAJKOT	A		UP TO 900MM	WTP,CT
					GRAPHITE INDIA	NASIK	A		UP TO 1000MM	
					SHRIRAM SEPL COMPOSITES LTD	CHENNAI	A		UP TO 1100MM	
					BALAJI FIBER REINFORCE PVT LIMITED	VADODARA	A		UP TO 650MM	
					MEGHA FIBRE GLASS INDUSTRIES PVT LTD	MEDAK	A		UP TO 900MM	
6	SERVICE VESSEL-CPU & OTHER PR VESSELS >= 10 BAR WORKING PRESSURE	I			DRIPLEX WATER ENGINEERING INTERNATIONAL PVT LIMITED	BHADARBAD	A			WTP,CPU,CAS,CHP, LHP&GHP,AHP
					BGR ENERGY SYSTEMS LTD (ENVIRONMENTAL ENGG. DIV.)	PONNERI	A		UPTO 3000MM DIA & THICKNESS UPTO 28 MM	
					ISHAN EQUIPMENTS PRIVATE LIMITED	VADODARA	A		UPTO 2900 MM DIA & THICKNESS UPTO 28 MM	
					JASMINO POLYMERTECH PVT LTD	TALOJA	A		DIA 2800MM, THICKNESS 25MM DESIGN PRESSURE UP TO 47.5 KSC	
					MAHIMA UDYOG	HARIDWAR	A		DIA UP TO 2900 MM , THICKNESS UPTO 29 MM	
					SV Fabricators	Navi Mumbai	A			
					BELCO POLLUTION CONTROL PVT LTD	GREATER NOIDA	A		UPTO 3200MM DIA & THICKNESS UPTO 30 MM	
7	PUMPS- HORIZONTAL & VERTICAL CENTRIFUGAL -UP TO 300KW	(≥10KW & < 90 KW CAT-II , ≥ 90 KW CAT-I)			KIRLOSKAR BROTHERS LTD	KIRLOSKARWADI	A			WTP,CW, CPU,FDPS,CHP, LHP &GHP,AC & VENTILATION,MUW, AHP
					WILO MATHER & PLATT	PUNE	A			
					WILO MATHER & PLATT	KOLHAPUR	A			
					SAM TURBO	COIMBATORE	A		FLOW UP TO 1500 CUM/HR AND POWER RATING UP TO 425 KW	
					FLOWMORE LTD	GHAZIABAD	A			
					BEST AND CROMPTON	CHENNAI	A			
					JYOTI LTD	VADODARA	A			
					WPIL	GHAZIABAD	A			
					KISHORE PUMPS	PUNE	A		UPTO 500M3/HR ONLY RUBBERLINED PUMPS ALSO	
					GRUNDFOS PUMPS INDIA PVT LTD	CHENNAI	A		HORIZONTAL UP TO 30 KW ONLY AND VERTICAL UP TO 45 KW ONLY (FOR APPLICATIONS WHERE NPSH IS NOT REQUIRED)	
					SINTECH PRECISION	GHAZIABAD	A		HORIZONTAL UP TO 400 KW MOTOR RATING AND VERTICAL UP TO 30 KW MOTOR RATING	
					KSB	PUNE	A			
					KSB	NASHIK	A			
					FLOWSERVE INDIA CONTROLS PVT LTD	COIMBATORE	A		HOIZONTAL CENTRIFUGAL PUMP UP TO 75 KW ONLY	
					SU MOTOR	MUMBAI	A		HORIZONATL UPTO 500M3/HR ONLY RUBBERLINED PUMPS AND VERTICAL CENTRIFUGAL PUMPS UP TO 100CMH ONLY	
					BHARAT PUMPS AND COMPRESSORS	NAINI	A		FLOW UP TO 2200 M3/HR AND HEAD UP TO 60 MWC	
					FLOWMORE LTD	GHAZIABAD	A			

ITEM CODE	ITEM/SERVICE DESCRIPTION	SL NO.	VENDOR CODE	VENDOR NAME	ADDRESS	PHONE	REMARKS
ES11	CABLE GLANDS	1	E1201	ALLIED TRADERS & EXPORTERS	C-124 A, SECTOR-2, NOIDA -201 301, UTTAR PRADESH, INDIA	Mr. Vijay Mohan Sood +(91)-(120)-2525694 +(91)-(120)-3052594 +(91)-(11)-23287156 vijay_mohansood@yahoo.com	
	CABLE GLANDS	2	E1017	ARUP ENGG & FOUNDRY WORKS	391/119, PRINCE ANWAR SHAH ROAD, CALCUTTA-700068	033 2473 0850	
	CABLE GLANDS	3	E1206	BALIGA LIGHTING EQPT.PVT.LTD.	63A, CP RAMASWAMY ROAD, ALWARPET, P.B.No 6910, CHENNAI-600018	44-24995505, 22680990-4	
	CABLE GLANDS	4	E1036	COMMET BRASS PRODUCTS	NUTAN CHEMICAL COMPOUND, WALBHAT ROAD, GOREGAON, MUMBAI-400063	91-022-26852961/62/63 comet@vsnl.net	
	CABLE GLANDS	5	DW08	DOWELLS	M/S. DOWELLS ELECTRICALS 47/47A, SATGURU INDUSTRIAL ESTATE. OFF AAREY ROAD, GOREGAON (EAST). MUMBAI 400 063.	CEO : Mr. Jayantibhai S. Patel TEL: 022-32504770./022-29270876/ 022-29270878.	
	CABLE GLANDS	6	E1044	ELECTROMAC INDUSTRIES	27/28AF NEW EMPIRE IND.ESTT., R.KRISHNA MANDIR RD.JB NGR ,ANDHERI(E), MUMBAI-400059	91-22-28324829 / 66919034 devang@electromacglands.com	
	CABLE GLANDS	7	I01	INCAB	HARE STREET, KOLKATA, WEST BENGAL-700001	91-33-2480161/62/63/64 Fax : 91-33-2485766	
ES12	CABLE LUGS	1	E1040	DOWELLS	M/S. DOWELLS ELECTRICALS 47/47A, SATGURU INDUSTRIAL ESTATE. OFF AAREY ROAD, GOREGAON (EAST).	CEO : Mr. Jayantibhai S. Patel TEL: 022-32504770./022-29270876/	
	CABLE LUGS	2	E1149	UNIVERSAL MACHINES LTD.	4,B.B.D.BAG (EAST) 90,STEPHEN HOUSE,5TH FLR CALCUTTA-700001	033 2282 2540	
ES16	GI CONDUITS	BIS APPROVED MAKE					
ES17	GI CONDUIT (EPOXY PAINTED)	BIS APPROVED MAKE					

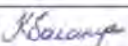
Note:-

Make of all the equipment/instrument under this specification shall be subjected to Owner (End Customer)/BHEL approval in the event of order. The bidder may propose name of additional sub-vendors make based on their experience, which will be subject to Owner (End Customer)/BHEL approval.

Owner (End Customer)/BHEL approval reserves the right to accept/reject any make or sub-vendor after award of contract. Approval and rejection of makes shall not have any price & time implication to the purchaser after award of contract.

	TECHNICAL SPECIFICATION DARLIPALI STPP PH-II (1X800 MW) COMPRESSED AIR SYSTEM	PE-TS-540-555-A001
		Rev. No. 00
		Date: AUG 2026

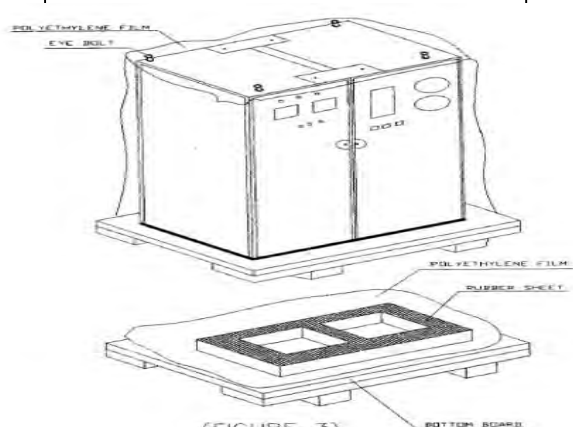
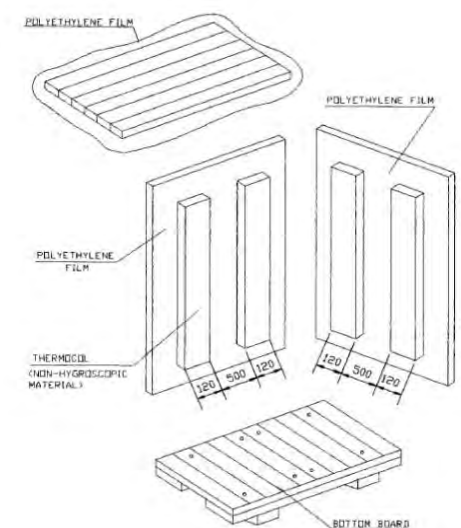
PAINTING REQUIREMENT	
ITEM	PAINTING REQUIREMENT
AIR COMPRESSOR	AS PER OEM STANDARD COMPLIANT TO INDUSTRIAL GR. PAINT
AIR DRYER	AS PER OEM STANDARD COMPLIANT TO INDUSTRIAL GR. PAINT
AIR RECEIVER	REFER COMPLIANCE DRAWINGS (GA OF AIR RECIEVER)
PIPING & VALVES (COMPRESSED AIR SYSTEM)	NA, AS GI MATERIAL BLUE SHADE STRIP ON PIPES @ 2M REGULAT INTERVAL
PIPING & VALVES (COOLING WATER)	REFER SHEET ATTACHED.

 BHARAT HEAVY ELECTRICALS LIMITED PIPING QUALITY ASSURANCE & CONTROL DEPT, TRICHY			PAINTING SCHEME FOR LP PIPING (ACW / ECW / Plant water, Air Piping, etc.,) PROJECT : NTPC SINGRAULI SUPER THERMAL POWER PROJECT- STAGE III (2X800 MW) BHEL CUSTOMER Nos : 1840,1841								QPNo: 1840:QPC:12 REV.NO: 01 Di : 10.09.2024	
Sl. NO	PGMA / Description	Surface Preparation & Surface Profile	Primer coat		Intermediate coat			Finish coat			Total DFT Microns (Min.)	REMARKS
			Primer	No of coats	Paint	No of coats	Shade	Paint	No of coats	Shade		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	(a) Internal Surface - ACW Pipe (for pipe - dia - 1000 mm and above)	Blast Cleaning SSPC-SP-10 SA 2½ (Refer Note 1)	Epoxy based Zinc rich Primer (Refer Note 2)	1 (50 Microns Min. per coat)	-----	-----	-----	Coal tar epoxy (Refer Note 2)	2 (75 Microns Min. per coat)	-----	200 Microns (Refer Note 3)	(Refer Note 3)
	(b) Holiday test (Refer Note 3)	Holiday testing by low voltage (75 Volts Min.) wet sponge Holiday detector or by High voltage (Voltage per micron of DFT is as recommended by Paint Manufacturer subjected to minimum of 5V / Micron) . Holiday test Equipment to be calibrated before testing.										
2	External Surface of ACW -Buried Piping / Encased in concrete (Temporary Protection for transportation from works to site). **Further protection to be done by BHEL Erection Group as per Contract requirement.	SSPC-SP3 / Power Tool Cleaning	Red Oxide Zinc Phosphate (Alkyd base to IS 12744)	1 (30 Microns per coat)	-----	-----	-----	-----	-----	-----	30 Microns	
3	External Surface a) Over ground piping of ACW (For all diameters) b) External Surface of ECW, Plant water (For all diameters)	SSPC-SP3 / Power Tool Cleaning	Red Oxide - Zinc Phosphate (Alkyd base to IS: 12744)	2 (25 Microns per coat)	-----	-----	-----	Synthetic enamel Long oil Alkyd to IS: 2932	3 ** (35 microns per coat)	Smoke Grey (Shade No. 692 of IS: 5)	120 at shop + 35 at site	** (2 coat at shop + 1 coat at site)
4	Galvanised and Stainless steel Piping	No painting.										
Notes: 1 Blast cleaning to near white metal to obtain roughness as per epoxy paint data sheet. 2 Application of Epoxy based Zinc rich Primer, Coal Tar Epoxy shall be done as per manufacturer's data sheet / recommendation, meeting the thickness requirements as per this document. 3 Testing requirements like DFT, holiday test shall be as per BHEL approved QP with Witness by BHEL / BHEL nominated inspection agency. 4 Colour shade shall be as per NTPC colour coding scheme. 5 Surface preparation, priming and painting of all non-insulated above ground piping except galvanized steel piping & stainless steel piping shall be as mentioned in the above painting scheme. 6 For External Surface of ACW -Buried Piping / Encased in concrete, painting scheme for Temporary Protection for transportation from works to site is mentioned in S. No: 2. **Further protection to be done by BHEL Erection Group for Coating and wrapping/ Anti corrosive Protection Coal tar tape on the External Surface of ACW -Buried Piping / Encased in concrete as per Contract requirement.												
 PREPARED BY : M MANOJ PANDI MGR/QA			 REVIEWED BY: K. SARANYA MGR/QA			 APPROVED BY: S JEGAN SRMGR/Q			For NTPC use MDL No : 1150-001-102-PVM-B-0018			Page 1/1

	TECHNICAL SPECIFICATION DARLIPALI STPP PH-II (1X800 MW) COMPRESSED AIR SYSTEM	PE-TS-540-555-A001
		Rev. No. 00
		Date: AUG 2026

PACKING REQUIREMENT					
COMMON GUIDELINES FOR PACKING					
1	GENERAL:				
1.1	The Components/Assemblies need to be packed suitably to avoid physical damage & corrosion during transit & storage. This packing shall be suitable for different handling operations and for the adverse conditions during transportation and during indoor / outdoor storage of materials.				
1.2	All the equipment shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at site till the time of erection. The Contractor shall be responsible for all loss or damage during transportation, handling and storage due to improper packing.				
1.3	The identification marking indicating the name and address of the consignee shall be clearly marked in indelible ink on two opposite sides and top of each of the packages. In addition the Contractor shall include in the marking gross and net weight, outer dimension and cubic measurement.				
1.4	All the equipments shall be suitably protected, coated, covered or boxed and crated to prevent damage or deterioration during transit, handling and storage at Site till the time of erection. While packing all the materials, the limitation from the point of view of the sizes of railway wagons available in India should be taken account of. The CAS supplier shall be responsible for any loss or damage during transportation, handling and storage due to improper packing. The CAS supplier shall ascertain the availability of Railway wagon sizes from the Indian Railways or any other agency concerned in India well before effecting despatch of equipment. Before despatch it shall be ensured that complete processing and manufacturing of the components is carried out at shop, only restricted by transport limitation, in order to ensure that site works like grinding, welding, cutting & preassembly to bare minimum. The BHEL's Inspector shall have right to insist for completion of works in shops before despatch of materials for transportation.				
1.5	Each package shall be accompanied by a packing note quoting specifically the name of the Contractor, the number and date of contract and names of the office placing the contract, nomenclature of contents and Bill of Material.				
2.	TYPES OF PACKING:				
	The following 5 types of packing have been standardized for packing of General Components/ Assemblies.				
a	OP' - Open Type.				
b	PP' - Partially Packed.				
c	CP' - Crate/Box Packing - Components/Equipment requiring physical protection.				
d	'CQ' - Case Packing – Machined components - Small & Medium Components/ Assemblies/ Equipment which require corrosion & physical protection.				
e	'CR' - Case Packing – Electrical/Electronic Components/ Assemblies, which require special packing viz. Water Proof, Shock Proof etc.				
3.	DESCRIPTION OF TYPES OF PACKING:				
	The various types of packing, as standardized above, are described below.				
3.1	'OP' - Open Type				
	In case, of components which are not affected by water & dust and do not require special protection, are generally not machined, shall be sent as open packages. However, these components may be sent in crates, wherever necessary.				
3.2	PP' - Partially Packed				
3.2.1	Components which need special protection at selected portions only shall be despatched partially packed. Machined surfaces should not be allowed to come directly in contact with the wood. Such surfaces should be protected with 100GSM(Colourless) Multi Layered Cross Laminated Polyethylene.				
3.2.2	Film. All sharp corners and edges shall be protected by rubber mats to prevent damage to the polyethylene film.				
3.3	'CP' - Crate Packing				
	Assemblies/Components which need only physical protection from the point of view of handling shall be despatched duly packed in crates.				
3.4	'CQ' - Case Packing - Machined Components/Assemblies/Equipment				
3.4.1	Small and medium sized components/assemblies/equipment due to size/weight and to avoid handling and pilferage problems shall be packed in Case/Containers. Wherever required adequate quantity of silica gel or VCI Powder/Tablets, packed in thin muslin cloth cotton bags shall be suitably placed. Small machines/components of less weight shall be provided with suitable cushioning by Rubberised coir. The components inside the case shall be entirely covered with 100GSM(Colourless) Multi Layered Cross Laminated Polyethylene Film, wherever required. This may be prescribed for electronic parts/critical machined components/surfaces.				

3.4.2	For mechanical product like valves where motors are separately securely wrapped in polyethylene, the requirement of individual component wrapping shall be exempted.
3.5	CR' - Case Packing - Electrical & Electronic Components/Assemblies Delicate components likely to be damaged e.g. Gauges, Instruments etc. are to be wrapped in waxed paper or polyethylene air bubble film and packed in cartons. Adequate quantity of Silica gel packed in cotton bags of 100grams each are to be suitably placed in the cartons. The cartons shall be entirely covered with 100GSM(Colourless) Multi Layered Cross Laminated Polyethylene Film before being packed in the cases. VCI Powder/Tablets can be used as an alternative to Silica Gel.
4	PREPARATION OF PACKING CASES
4.1	DIMENSIONS:
a)	Thickness of planks for Front, rear, top and bottom sides and binding, jointing battens shall be 25/20mm +2/-3 mm as per applicable drawings of the respective units/manufacturers.
b)	Width of all planks including the tongue shall be more than 125mm and after planing it shall be minimum 100mm.
c)	Minimum number of planks shall be used for a shooK.
d)	Horizontal, vertical, diagonal planks shall be given for binding (number of such planks depend on the dimension of panel.
e)	Width of binding planks shall be minimum 100mm.
f)	Distance between any 2 binding planks shall be less than 750mm.
g)	diagonal planks shall be used in between vertical binding planks when distance between inner to inner of vertical planks is more than 750mm.
h)	Distance of the outer edges of these planks from the edge of case shall be less than 250mm.
i)	Diagonal planks are not required for top planks and width side, if the width of pallet is less than 750mm.
4.2	HOOP IRON STRIPS These are used for strapping the boxes. The width of the strips shall be 19+1mm and thickness 0.6+0.01mm. The material shall be free from rust. If sufficient nailing is done for bigger boxes, strapping need not be done.
4.3	BRACKETS These brackets are used for nailing to the corners of cubicle boxes. The brackets shall be of mild steel of thickness min 2mm and width 25+1mm. The brackets shall be of "L" shape, the length of each side being 100+2mm. Two holes shall be provided towards the end of each side for screwing /nailing.
4.4	MULTI LAYERED CROSS LAMINATED POLYTHELENE FILM 100GSM (Colourless) Multi Layered Cross Laminated Polythelene Film are used to make covers to the jobs individually. The cross lamination gives qualities of extra toughness, together with flexibility and lightness coupled with good weather resistance to ultra violet rays.
4.5	RUBBERISED COIR: The rubberized coir is used as cushioning material. For the packing of loose items, items are to be arrested by using rubberized coir. For the packing of cubicles rubberized coir of thickness 25mm and width 75mm shall be used.
5	MULTI LAYER CROSS LAMINATED POLY FILM WHILE PACKING OF CUBICLES/CASING
5.1	The inner surface of 4 sides of shooK's shall be nailed with Multi-layer cross laminated poly film (as per 4.4) using blue nails wherever 2 pieces of Cross laminated poly film are used, the joint shall have an overlap of minimum 20mm.
5.2	The inner surface of top cover shall be nailed with Multi-layer cross laminated poly film. This sheet shall project outside on 4 sides by at least 100mm and shall be nailed properly on sides. Joining of sheets should have overlap of minimum 20mm.
5.3	The cubicles shall be covered with Multi-layer cross laminated poly film.
6	PACKING OF LOOSE ITEMS/SPARES
6.1	Inner surfaces of all 6 sides shall be lined with Multi Layered Cross Laminated Polythelene Film (as per clause 5.4) using blue nails.
6.2	Rubberized coir of minimum 25mm thickness and 100 mm width shall be nailed to inner surfaces of bottom and 4 sides of box.
6.3	Internal packing: Items that go into the box shall be packed using 100GSM, (Colourless) Multi Layered Cross Laminated Polyethylene Film. Any space left between the job and the sides and the top of the box shall be filled with rubberized coir to get proper cushioning effect.
6.4	Certain items like transformers, reactors, breakers, etc., shall be bolted to the bottom of the box using bolts, nuts and washers.
6.5	Silica gel held in cotton bags shall be kept at proper places in the box.
6.6	Packing slip kept in polyethylene bag shall be placed in the box.
6.7	Two numbers of hoop iron strips shall be strapped tightly on the case using clips.
6.8	Stencil marking of various details and marking of various symbols shall be done as per BHEL instructions using indelible/non washable marking ink.
6.9	Loose items to be kept inside the cubicle/casing.
	- Other items which are given loose in addition to cubicle shall be packed in separate boxes.

7	TYPICAL PATTERN OF WOODEN BOX				
					
8	SEALED PACKING: Components sub-assemblies and assemblies sensitive to climatic conditions shall be packed seal tight. All the openings of the sensitive components, sub-assemblies and assemblies shall be blanketed to prevent the ingress of dust and moisture. The components sub-assemblies and assemblies are completely covered with 2 layers of polyethylene sheet. All sharp corners and edges are to be protected by rubber mats to prevent the polyethylene sheet from damage. Top surface of the case shall be free from dents to prevent rain water pockets.				
9	MARKINGS/STENCILINGS				
9.1	"HANDLE WITH CARE", "FRAGILE DO NOT TURN OVER".				
9.2	Besides the caution signs the product information's shall be stencilled of letters with 13mm to 50mm height.				
9.3	In case of consignment consists of more than one package, each package shall carry its package no. as given in shipping list. All caution signs shall be stencilled in high quality full glossy out door finishing paint red in colour (AA56126). All other markings shall be carried out in black enamel.				
9.4	Caution signs & other markings shall be stencilled on both the end shooks & the side shooks.				
9.5	Caution sign (for slinging) shall be stencilled only on side shooks at the appropriate place.				
9.6	In case the size of package is small for using the stencils, then hand written letters/figures shall be allowed.				
	MARKINGS ON PACKING CASE S 1. THIS PLANT STANDARD PRESCRIBES THE VARIOUS CAUTION SIGNS AND OTHER MARKINGS ON PACKING CASES. 2. DIMENSIONS IN THE TABLE T SHALL BE USED FOR MAKING STENCILS ONLY.				

	TECHNICAL SPECIFICATION DARLIPALI STPP PH-II (1X800 MW) COMPRESSED AIR SYSTEM	PE-TS-540-555-A001 Rev. No. 00 Date: AUG 2025
BILL OF QUANTITY		
S. No.	Description	Quantity & Unit
A	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part, Services part, Engineering Charges and AMC comprising of design (i.e. preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles (as applicable), fill of lubricants & consumables, mandatory spares along with spares for erection (as required), start-up spares and commissioning spares (as required), operational spares (as specified), forwarding, proper packing, shipment and delivery at site, unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, final painting at site, minor civil work, trial run at site, carrying out Performance guarantee tests at site, training of BHEL & Customer O&M staff at project site and handover in flawless condition of the package to the end customer complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendments & agreements till placement of order.	1 Lot
1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part comprising of manufacturing, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles (as applicable), fill of lubricants & consumables alongwith spares for erection as required, start-up and commissioning spares as required, operational spares (as specified), forwarding, proper packing, parts / spares required during warranty period (against defects in design, materials, construction and workmanship) shipment and delivery at site, for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order.	1 Lot
2	Total lumpsum firm prices inclusive of all prevailing taxes, duties and other levies for Services part comprising of unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, connectivity of CAS with DCS, final painting at site, minor civil work, trial run at site and carrying out Performance guarantee tests at site as specified, travelling, lodging, boarding & other charges of E&C personnel's, training of BHEL & Customer O&M staff at project site and handover in flawless condition of the package to the end customer complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendments & agreements till placement of order.	1 Lot
4	Total lumpsum firm price for Engineering Charges comprising of design (i.e Preparation & submission of drawings/documents including " AS-BUILT" drawings and O&M Manuals and engineering as per tender technical specification above, amendments & agreements till placement of order.	1 Lot
5	Total lumpsum firm price inclusive of all prevailing taxes, duties and other levies for AMC (Annual Maintenance Contract) , for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendments & agreements till placement of order; Refer Annexure-B of Technical specification for detailed scope in AMC.	1 Lot
B	Break up of Supply items is as below	
1	Instrument air Compressors (Oil Free Screw / Centrifugal type) each of minimum 55 NM3/Min capacity @ 8.0 kg/cm2 (min.) discharge pressure with suction filter with silencer, inter cooler and after cooler with moisture separators, automatic drain traps, instruments, control system, cable lugs, glands and other accessories (as required / as specified) but excluding electric motor drive.	3 Nos.
2	Air Drying Plants HOC type (Twin Tower / Rotary Drum) of minimum 55 NM3/min. capacity for Air Compressor with all instruments, control panels, including Electronic dew point meter and other accessories as specified.	3 Nos.
3	Service air Compressors (Oil Free Screw / Centrifugal type) each of minimum 55 NM3/Min capacity @ 8.0 kg/cm2 (min.) discharge pressure with suction filter with silencer, inter cooler and after cooler with moisture separators, automatic drain traps, instruments, control system, cable lugs, glands and other accessories (as required / as specified) but excluding electric motor drive.	2 Nos.
4	Air Receivers required for Compressed Air System of minimum 10 Cu.M capacity each with instruments, relief valve, isolation valve, drain connection with automatic trap stations (zero purge air loss type) and other accessories as specified.	8 Nos.
5	Air Receivers required for Compressed Air System of minimum 02 Cu.M capacity each with instruments, relief valve, isolation valve, drain connection with automatic trap stations (zero purge air loss type) and other accessories as specified.	1 No.
6	Inter connecting cooling water, drain piping and compressed air piping as specified including fittings and valves etc. for complete Compressed air system.	1 Lot
7	Instruments as specified.	1 Lot
8	Interface module(s), JB's for the overall control & monitoring of compressed air system through DDCMIS including common Sequencing Panel.	1 Lot
9	Operational spares for Compressed air system as per Annexure-B.	1 Lot

	TECHNICAL SPECIFICATION DARLIPALI STPP PH-II (1X800 MW) COMPRESSED AIR SYSTEM	PE-TS-540-555-A001		
		Rev. No. 00		
		Date: AUG 2026		
DRAWINGS & DOCUMENTS TO BE SUBMITTED BY ALL THE BIDDERS ALONG WITH THE BID				
S. No.	DOCUMENT TITLE			
1	Supporting Documents meeting PQR requirements.			
2	Compliance cum Confirmation certificate with bidder's sign & stamp.			
3	"No Deviation" Certificate duly Stamped and Signed.			
4	Un-priced bid- clearly indicating 'QUOTED' and 'NOT QUOTED' against each item.			
5	Filled, Signed & Stamped copy of Guaranteed Power Consumption for Compressed Air System.			
DRAWINGS & DOCUMENTS TO BE SUBMITTED BY SUCCESSFUL BIDDER AFTER AWARD OF CONTRACT ALONG WITH SUBMISSION SCHEDULE				
S.No.	BHEL DRG/DOC No.	TITLE	BASIC ENGG DRG/DOC (Y/N)	SCHEDULED SUBMISSION, DAYS FROM LOI DATE
1	PE-V0-540-555-A001	QUALITY PLAN OF AIR COMPRESSOR FOR COMPRESSED AIR SYSTEM	Y	21
2	PE-V0-540-555-A002	QUALITY PLAN OF AIR DRYING PLANT FOR COMPRESSED AIR SYSTEM	Y	21
3	PE-V0-540-555-A003	QUALITY PLAN OF AIR RECEIVER FOR COMPRESSED AIR SYSTEM	Y	21
4	PE-V0-540-555-A027	QUALITY PLAN OF BOUGHT OUT ITEMS (BOI) FOR COMPRESSED AIR SYSTEM	Y	14
5	PE-V0-540-555-A029	SUB-VENDOR LIST WITH INSPECTION CATEGORISATION PLAN FOR COMPRESSED AIR SYSTEM	Y	15
6	PE-V0-540-555-A005	TDS & GA OF INSTRUMENT AIR & SERVICE AIR COMPRESSORS INCLUDING PERFORMANCE CURVES	Y	21
7	PE-V0-540-555-A006	TDS & GA OF AIR DRYING PLANT FOR COMPRESSED AIR SYSTEM	Y	21
8	PE-V0-540-555-A008	TDS & GA OF VALVES FOR COMPRESSED AIR SYSTEM	Y	42
9	PE-V0-540-555-A010	TDS & GA OF AIR RECIVER FOR COMPRESSED AIR SYSTEM	Y	28
10	PE-V0-540-555-A030	TDS & GA OF START UP COMPRESSOR &AIR DRYER FOR CENTRIFUGAL COMPRESSOR (IF APPLICABLE)	Y	28
11	PE-V0-540-555-A025	DATASHEET OF INSTRUMENT (INCLUDING, TEMPERATURE ELEMENTS, TRANSMITTERS AND LOCAL INDICATORS), I/O LIST, BOM AND MANDATORY SPARES FOR COMPRESSED AIR SYSTEM	N	42
12	PE-V0-540-555-A015	COMPRESSOR HOUSE LAYOUT	Y	21
13	PE-V0-540-555-A016	P&I DIAGRAM OF AIR COMPRESSOR FOR COMPRESSED AIR SYSTEM	Y	21
14	PE-V0-540-555-A017	P&I DIAGRAM OF AIR DRYER FOR COMPRESSED AIR SYSTEM	Y	21
15	PE-V0-540-555-A018	P&I DIAGRAM OF COMPRESSED AIR SYSTEM WITHIN COMPRESSOR HOUSE	Y	21
16	PE-V0-540-555-A019	OPERATION, CONTROL PHILOSOPHY & I/O LIST OF COMPRESSED AIR SYSTEM OF COMPRESSED AIR SYSTEM	Y	42
17	PE-V0-540-555-A020	ELECTRICAL & INTERNAL WIRING DIAGRAM FOR COMPRESSOR & DRYER PANEL FOR COMPRESSED AIR SYSTEM	Y	50
18	PE-V0-540-555-A021	ELECTRICAL FEEDER LIST FOR COMPRESSED AIR SYSTEM	Y	21
19	PE-V0-540-555-A022	CONTROL CABLE SCHEDULE FOR COMPRESSED AIR SYSTEM	Y	60
20	PE-V0-540-555-A023	PG TEST PROCEDURE FOR COMPRESSED AIR SYSTEM	N	75
21	PE-V0-540-555-A024	O&M MANUAL-COMPRESSED AIR SYSTEM	N	90
22	PE-V0-540-555-A026	CHECKLIST FOR STORAGE MAINTENANCE PRIOR COMMISSIONING OF COMPRESSOR AND AIR DRYER	N	90
23	PE-V0-540-555-A026A	CHECKLIST FOR PREVENTIVE/BREAK-DOWN MAINTENANCE POST COMMISSIONING OF COMPRESSOR AND AIR DRYER	N	90
24	PE-V0-540-555-A027	IO LIST FOR CAS	N	90
25	PE-V0-540-555-A031	FQP FOR CAS PACKAGE	N	75
Notes:				
1	Bidder to follow the following drawing submission schedule: i)1st submission of drawings from date of LOI as per the submission schedule. ii)Every revised submission incorporating comments – within 7 days. lii) BHEL review/ approval time shall be considered as 18 days from date of submission & re-submission.			
2	Bidder to submit revised drawings complete in all respects incorporating all comments. Any incomplete drawing submitted shall be treated as non-submission with delays attributable to bidder's account. For any clarification/ discussion required to complete the drawings, the bidder shall himself depute his personal to BHEL for across the table discussions/ finalizations/ submissions of drawings.			
DRAWINGS & DOCUMENTS TO BE SUBMITTED AS FINAL/AS-BUILT DOCUMENT				
1.)	Refer Annexure - D			

	TECHNICAL SPECIFICATION DARLIPALI STPP PH-II (1X800 MW) COMPRESSED AIR SYSTEM	PE-TS-540-555-A001
		Rev. No. 00
		Date: AUG 2026
COMPLIANCE CERTIFICATE		
The bidder shall confirm compliance with following by signing / stamping this compliance certificate (every sheet) and furnish same with the offer.		
1	The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusions, other than those mentioned under “exclusion and those resolved as per ‘Schedule of Deviations’, with regard to same.	
2	There are no other deviations w.r.t. specifications other than those furnished in the ‘Schedule of Deviations’. Any other deviation, stated or implied, taken elsewhere in the offer stands withdrawn unless specifically brought out in the ‘Schedule of Deviations’.	
3	Bidder shall submit QP in the event of order based on the guidelines given in the specification & QP enclosed therein. QP will be subject to BHEL / CUSTOMER approval & customer hold points for inspection / testing shall be marked in the QP at the contract stage. Inspection / testing shall be witnessed as per same apart from review of various test certificates/ Inspection records etc. This is within the contracted price without any extra implications to BHEL after award of the contract.	
4	All drawings/ data-sheets / calculations etc. submitted along with the offer shall not be taken cognizance off.	
5	The offered materials shall be either equivalent or superior to those specified in the specification & shall meet the specified / intended duty requirements. In case the material specified in the specifications is not compatible for intended duty requirements then same shall be resolved by the bidder with BHEL during the pre-bid discussions, otherwise BHEL decision shall be binding on the bidder whenever the deficiency is pointed out. For components where materials are not specified, same shall be suitable for intended duty, all materials shall be subject to approval in the event of order.	
6	The operational spares shall be supplied on ‘As Required Basis’ & prices for same included in the base price itself.	
7	All sub vendors shall be subject to BHEL/CUSTOMER approval in the event of order.	
8	Guarantee for plant/equipment shall be as per relevant clause of GCC / SCC / Other Commercial Terms & Conditions.	
9	In the event of order, all the material required for completing the job at site shall be supplied by the bidder within the ordered price even if the same are additional to approved billing break up, approved drawing or approved Bill of quantities within the scope of work as tender specification. This clause will apply in case during site commissioning, additional requirements emerges due to customer and / or consultant’s comments. No extra claims shall be put on this account	
10	Schedule of drawings submissions, comment incorporations & approval shall be as stipulated in the specifications. The successful bidder shall depute his design personnel to BHEL’s office for across the table resolution of issues and to get documents approved in the stipulated time.	
11	As built drawings shall be submitted as and when required during the project execution.	
12	The bidder has not tempered with this compliance cum confirmation certificate and if at any stage any tempering in the signed copy of this document is noticed then same shall be treated as breach of contract and suitable actions shall be taken against the bidder.	
13	Successful bidder shall furnish detailed erection manual for each of the equipment supplied under this contract at least 3 months before the scheduled erection of the concerned equipment / component or along with supply of concerned equipment / component whichever is earlier.	

	TECHNICAL SPECIFICATION DARLIPALI STPP PH-II (1X800 MW) COMPRESSED AIR SYSTEM	PE-TS-540-555-A001
		Rev. No. 00
		Date: AUG 2026
14	Document approval by customer under Approval category or information category shall not absolve the vendor of their contractual obligations of completing the work as per specification requirement. Any deviation from specified requirement shall be reported by the vendor in writing and require written approval. Unless any change in specified requirement has been brought out by the vendor during detail engineering in writing while submitting the document to customer for approval, approved document (with implicit deviation) will not be cited as a reason for not following the specification requirement.	
15	In case vendor submits revised drawing after approval of the corresponding drawing, any delay in approval of revised drawing shall be to vendor's account and shall not be used as a reason for extension in contract completion.	
Signature of authorised Representative		
Name and Designation :		
Name & Address of the Bidder:		
Date:		

BHEL-PEM-MAUX PRE-QUALIFICATION CRITERIA			
	PACKAGE: COMPRESSED AIR SYSTEM PRE-QUALIFICATION REQUIREMENT (TECHNICAL) FOR DARLIPALI STPP PH-II (1X800 MW)	PE-PQ-540-555-A001	
		DATE	AUG 2026
		REV NO.	00

S. No.	DESCRIPTION
1	Bidder should have designed, manufactured, supplied, erected/got erected/ supervised erection and commissioned/supervised commissioning of at least one (1) number non-lubricated oil free screw type air compressor of minimum capacity 20 NM ³ /min or at least one (1) number centrifugal air compressor of minimum capacity 50 NM ³ /min and at rated discharge pressure of 8 kg/cm ² (g), which should have been running satisfactorily for at least one (1) year from the date of commissioning/completion/ handover as on date of bid opening. Bidder shall offer only the type of compressors for which he is qualified.
2	Bidder has to submit following supporting documents meeting above mentioned prequalifying requirement: Copy of minimum one (1) performance certificate from end user along with copy of related Purchase Order (PO) or Letter of Intent (LOI) or letter of Award (LOA) or Work Order (WO) in support of PQR clause mentioned at S. No. 1.0 above.
3	Sub-Supplier Qualification Requirement for Air Drying Plant (ADP): The ADP proposed to be supplied for this package, shall be sourced from such manufacturers who have manufactured and supplied at least one (1) number Air Drying Plant each of capacity 50 NM ³ /min or more and the type same as offered, which should have been in successful operation for at least one (1) year as on date of bid opening. Bidder has to furnish an undertaking to meet this sub-supplier Qualification Requirement. However, Bidder to furnish the required documents as mentioned against point no. 2 for establishing ADP provenness.
Notes	
a	BHEL reserves the right to seek approved design documents from bidder to substantiate technical parameters as specified in clause 1 and 4 above.
b	Bidder to submit all supporting documents in Hindi and/or English as required. If documents submitted by bidder are in language other than that specified above, a translated copy of the same, in above language(s) shall be submitted by the bidder. In such case, for purposes of interpretation, the translated version shall govern. The translation of the documents shall be carried out by professional translators and the translator shall certify that he is proficient in both languages in order to translate the document and that the translation is complete and accurate. Further, in case the supporting documents are issued outside India, same shall be authenticated by the Indian Consulate located in the Country where the documents have been issued or the Embassy of that Country in India.
c	In case the PO/ LOI /LOA/ WOs is more than ten (10) years old as on date of bid opening, minimum one (1) no. additional Purchase order (for similar jobs) shall be submitted which should not be more than ten (10) years old as on date of bid opening, for establishing continuity in business.
d	Notwithstanding anything stated above, BHEL/End customer/Owner reserves the right for physical assessment of the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL/ End customer/Owner. (Bidder to furnish details as per Annexure-A)
e	Consideration of offer shall be subject to End customer/Owner's approval of bidder.
f	After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all other terms of the tender.
g	Bidder shall meet PQR based on its own credentials. Bid from joint venture (JV) company / Consortium bid is not acceptable.

	CORPORATE QUALITY ASSURANCE/ कॉर्पोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट	

Ref No: संदर्भ सं.:				Date: तिथि:			
i.	Main Contractor मुख्य संविदाकार						
ii.	Project परियोजना						
iii.	Package Name पैकेज का नाम			Package No पैकेज सं.			
iv.	Proposed Item/Scope of Sub-contracting उप-संविदा(अनुबंध) का प्रस्तावित मद/ दायरा						
v.	Item covered under निम्नलिखित के अंतर्गत शामिल मद	Schedule-1 /अनुसूची- 1		As per contract clause No- अनुबंध के अनुसार खंड सं.- -			
		Schedule-2 अनुसूची- -2					
vi.	If item is Schedule-1 and proposed sub-vendor is indigenous, Main Contractor to explain how the contractual provisions will be fulfilled/यदि मद अनुसूची -1 है और प्रस्तावित उप-विक्रेता स्वदेशी है, तो मुख्य संविदाकार को स्पष्ट करना होगा कि संविदा/अनुबंध के प्रावधान कैसे पूरे किए जाएंगे						
vii.	Name and Address of the proposed Sub-vendor's works /प्रस्तावित सब-वेंडर का नाम तथा पता						
viii.	PO placement date/ Start of manufacturing (if self-manufactured) as per L2 network पीओ नियोजन की तिथि / एल- 2 नेटवर्क के अनुसार विनिर्माण (यदि स्व-निर्मित है) की शुरुआत						
ix.	Item Description (Type/Size/Rating/Scope of Sub-Contracting) मद का विवरण (प्रकार / आकार / रेटिंग / उप-अनुबंध का दायरा)	Total quantity of proposed item envisaged in this package (Nos/ Running Meters/ Kgs/ Tons etc) इस पैकेज में परिकल्पित प्रस्तावित मद की कुल मात्रा (संख्या / क्रियाशील मीटर / किलोग्राम / टन आदि)	Quantity proposed to be procured from proposed sub-vendor (Nos/ Running Meters /Kgs /Tons etc) प्रस्तावित उप-विक्रेता (संख्या / क्रियाशील मीटर / किलोग्राम / टन आदि) से खरीदी जाने वाली मात्रा	Timeline for quantity requirements as per project schedule & whether the proposed Sub-vendor equipped with adequate capacity to supply proposed order quantity in time / परियोजना समय सूची के अनुसार मात्रा आवश्यकताओं के लिए समय-सीमा और क्या प्रस्तावित उप-विक्रेता समय पर प्रस्तावित मांग की मात्रा की आपूर्ति करने में पूरी तरह से सक्षम है			
x.	Supply experience of the proposed sub-vendor (including supplies to Main Contractor, if any) for similar item/scope of sub-contracting, for last 3 years (Note: - Only relevant experience details w.r.t. proposed item/scope of subcontracting to be brought out here) पिछले 3 वर्षों के लिए उप-अनुबंध के समान मद / दायरे के लिए प्रस्तावित सब-वेंडर (मुख्य संविदाकार हेतु आपूर्ति, यदि कोई हो, सहित) का आपूर्ति अनुभव (नोट: - उप-अनुबंध के प्रस्तावित मद / दायरे के संबंध में केवल प्रासंगिक अनुभव के विवरण का उल्लेख हो)						
	Project/ Package परियोजना/	Customer Name	Supplied Item (Type/Rating/Model /Capacity/Size etc)	PO ref no/date पीओ संदर्भ सं. /तिथि	Supplied Quantity आपूर्ति की मात्रा	Date of Supply	

	CORPORATE QUALITY ASSURANCE/ कॉरपोरेट गुणवत्ता आश्वासन MAIN CONTRACTOR'S PROPOSAL CUM EVALUATION REPORT मुख्य संविदाकार प्रस्ताव सह मुल्यांकन रिपोर्ट					

पैकेज	ग्राहक का नाम	आपूर्ति मद्द (प्रकार/रिटिंग /मॉडल /क्षमता/आकार आदि)			आपूर्ति की तिथि

We confirm that as per our assessment, the proposed sub-vendor has requisite capabilities & supply experience and is suitable for supplying the proposed item/scope of sub-contracting/

हम अपने आकलन के अनुसार इस बात की पुष्टि करते हैं कि, प्रस्तावित उप-विक्रेता के पास अपेक्षित क्षमता और आपूर्ति करने का अनुभव है और उप-अनुबंध के दायरे /प्रस्तावित मद्द की आपूर्ति के लिए उपयुक्त है।

Name: नाम:		Desig: पद:		Contact No: दूरभाष सं.:		Sign: हस्ताक्षर:		Date: तिथि:	
----------------------	--	----------------------	--	-----------------------------------	--	----------------------------	--	-----------------------	--

Company's Seal/Stamp: - कंपनी का मुहर: -

ANNEXURE-A OF PRE-QUALIFICATION CRITERIA

i.	Item/Scope of Sub-contracting			
ii.	Address of the registered office 	Details of Contact Person <i>(Name, Designation, Mobile, Email)</i> 		
iii.	Name and Address of the proposed Sub-vendor's works where item is being manufactured 	Details of Contact Person: <i>(Name, Designation, Mobile, Email)</i> 		
iv.	Annual Production Capacity for proposed item/scope of sub-contracting			
v.	Annual production for last 3 years for proposed item/scope of sub-contracting			
vi.	Details of proposed works			
1.	Year of establishment of present works			
2.	Year of commencement of manufacturing at above works			
3.	Details of change in Works address in past (if any)			
4.	Total Area			
	Covered Area			
5.	Factory Registration Certificate	Details attached at Annexure – F2.1		
6.	Design/ Research & development set-up <i>(No. of manpower, their qualification, machines & tools employed etc.)</i>	Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design Details attached at Annexure – F2.2 <i>(if applicable)</i>		
7.	Overall organization Chart with Manpower Details <i>(Design/Manufacturing/Quality etc)</i>	Details attached at Annexure – F2.3		
8.	After sales service set up in India, in case of foreign sub-vendor <i>(Location, Contact Person, Contact details etc.)</i>	Applicable / Not applicable Details attached at Annexure – F2.4		
9.	Manufacturing process execution plan with flow chart indicating various stages of manufacturing from raw material to finished product including outsourced process, if any	Details attached at Annexure – F2.5		
10.	Sources of Raw Material/Major Bought Out Item	Details attached at Annexure – F2.6		
11.	Quality Control exercised during receipt of raw material/BOI, in-process , Final Testing, packing	Details attached at Annexure – F2.7		
12.	Manufacturing facilities <i>(List of machines, special process facilities, material handling etc.)</i>	Details attached at Annexure – F2.8		

ANNEXURE-A OF PRE-QUALIFICATION CRITERIA

13.	Testing facilities (List of testing equipment)	<i>Details attached at Annexure – F2.9</i>				
14.	If manufacturing process involves fabrication then-	<i>Applicable / Not applicable</i>				
	List of qualified Welders	<i>Details attached at Annexure – F2.10</i> (if applicable)				
	List of qualified NDT personnel with area of specialization					
15.	List of out-sourced manufacturing processes with Sub-Vendors' names & addresses	<i>Applicable / Not applicable</i> <i>Details attached at Annexure. –F2.11</i> (if applicable)				
16.	Supply reference list including recent supplies	<i>Details attached at Annexure – F2.12</i> (as per format given below)				
Project/ package	Customer Name	Supplied Item (Type/Rating/Model /Capacity/Size etc)	PO ref no/date	Supplied Quantity	Date of Supply	
17.	Product satisfactory performance feedback letter/certificates/End User Feedback		<i>Attached at annexure - F2.13</i>			
18.	Summary of Type Test Report (Type Test Details, Report No, Agency, Date of testing) for the proposed product (similar or higher rating) <i>Note:- Reports need not to be submitted</i>		<i>Applicable / Not applicable</i> <i>Details attached at Annexure – F2.14</i> (if applicable)			
19.	Statutory / mandatory certification for the proposed product		<i>Applicable / Not applicable</i> <i>Details attached at Annexure – F2.15</i> (if applicable)			
20.	Copy of ISO 9001 certificate (if available)		<i>Attached at Annexure – F2.16</i>			
21.	Product technical catalogues for proposed item (if available)		<i>Details attached at Annexure – F2.17</i>			
Name:		Desig:		Sign:		Date:

Company's Seal/Stamp:-

ANNEXURE-A OF PRE-QUALIFICATION CRITERIA

Sub : Sub-Qualifying Requirements for the Compressed Air System stipulated in Clause No. 4.7 of Sub-Section-IA, Part-A, Section-VI of Technical Specification of Bidding Documents.

Sl.No.	Item	Plant 1
--------	------	---------

A) Air Compressor

In line with the Sub-qualifying requirements stipulated in Clause 4.7 of Sub-Section-IA, Part-A, Section-VI, we / our sub-vendor confirm that we/our sub-vendor have designed, manufactured, supplied, erected /supervised erection and commissioned/supervised commissioning of atleast one (1) no. non-lubricated oil free screw type air compressor of minimum capacity 20 NM3/min each or atleast one (1) no. centrifugal air compressors of minimum capacity 50 NM3/min each and at rated discharge pressure of 8 Kg./cm2(g) which have been in successfull operation for atleast one (1) year.

1. Name of the Project
and its address where the
system is installed
2. Name of the Client with
address, name of Contact
person(s) with tel.no.
& fax no.
3. Order No. and date
4. Purchase order enclosed Yes/No
5. Name of the Manufacturer & Address
6. Date of commissioning of the
compressors
7. No. of Compressors supplied
8. Whether the scope of work
executed for the aforesaid
compressors included the following
 - a) Designed Yes/No
 - b) Manufactured Yes/No

Signature of authorized signatory.....

ANNEXURE-A OF PRE-QUALIFICATION CRITERIA

Sl.No.	Item	Plant 1
	c) Supplied	Yes/No
	d) Erected/supervised erection	Yes/No
	e) Commissioned/supervised commissioning	Yes/No
9.	Brief Technical particulars of the Compressors (Bidder to fill)	
	a) whether the compressor supplied was non lubricated oil free screw/centrifugal type air compressor	
	b) Make & Model	
	c) Capacity	
	i) Flow (NM3/Min)	
	ii) Discharge pressure [Kg/cm2/(g)]	
10.	Whether atleast one (01) compressor have been in successful operation for a period of not less than one (01) year.	
11.	Whether documentary evidence in support of above enclosed?	Yes/No

ANNEXURE-A OF PRE-QUALIFICATION CRITERIA

B) Air Drying plant

We/our sub-vendor further declare that the Air Drying Plant (ADP) to be supplied under the package shall be sourced from manufacturer(s) M/s..... who have manufactured and supplied atleast one (1) no. Air Drying Plant each of capacity 50 NM3/min or more and the type same as offered, which have been in successful operation for atleast one (01) year. The experience details of manufacturer are as follows :

Sl.No.	Item	Plant 1
1.	Name of the Project and its address where the system is installed	
2.	Name of the Client with address, name of Contact person(s) with tel.no. & fax no.	
3.	Order No. and date	
4.	Purchase order enclosed	Yes/No
5.	Name of the Manufacturer & Address	
6.	Date of commissioning of the Air drying unit	
7.	No. of Air drying unit supplied	
8.	Whether the scope of work executed for the aforesaid Air drying unit included the following	
	a) Manufactured	Yes/No
	b) Supplied	Yes/No
9.	Brief Technical particulars of the Air Drying unit (Bidder to fill)	
	a) Type	
	b) Flow (NM3/Min)	

Signature of authorized signatory.....

ANNEXURE-A OF PRE-QUALIFICATION CRITERIA

Sl.	Item	Plant 1
10.	Whether atleastone (01) air drying plants have been in successful operation for atleast one year.	
11.	Whether documentary evidence in support of above enclosed?	Yes/No

Date :

(Signature).....

Place :

(Printed Name).....

(Designation).....

(Common seal).....