### PROCUREMENT (SUPPLY), CONSTRUCTION, INSTALLATION/ERECTION, PRE-COMMISSIONING, & COMMISSIONING ASSISTANCE FOR NEW CENTRIFUGAL COMPRESSORS AND MODIFICATION WORKS OF EXISTING TURBO COMPRESSOR TRAINS FOR QADIRPUR COMPRESSION PROJECT

# TENDER ENQUIRY NO. PROC-FC/CB/PROJ/QP-4369/2019 POST-BID CLARIFICATION No. OGDCL-QP-4369-007



Sr. No.	Bidder Query	OGDCL/ENAR Response (18-Oct-2019)							
Mechani	Mechanical								
1	As per data sheet 0220-IDS-6011-0, piping class mentioned in serial no. 4 is ANSI 300 LB RF while maximum inlet pressure mentioned in serial no. 10 is 1400Psig. Which specs should be followed, Please Confirm	Piping Class shall remain ANSI 300 LB RF, however maximum inlet pressure has been updated to 260.5 Psi after the finalization from Compressor Vendor , updated Data Sheet is attached.							
Electrica	Electrical								
2	2 Kindly confirm IP42 LV switchgear is required. Confirmed								
3	Also confirm that IP54 BTD is required	Confirmed							
4	Cable schedule has cables for Produced water pump and lighting. As per bidders understanding no other cables shall be laid.	Cables for compressors & its intercooler/aftercooler motors shall be supplied by the Compressor vendor. Bidder to consider their cable laying and termination in all respect. Details of cables shall be provided at later stage after compressor vendor data.							
5	2Cx35sq.mm cable is not mentioned in cable schedule or anywhere else but in BOQ. Kindly specify the requirement.	Please refer 0106-ELD-6704-3 (Lighting Circuit Details). Please note that 2Cx35sq.mm cable shall be dismantled & re-installed to reinstate the lighting circuits.							
6	Cable size for produced water pump 3Cx50 and 3Cx35 are undersized. Kindly confirm that these cables shall be required	Cable sizes are OK. Please provide the basis/selection criteria for bidder's statement that cables are undersized. Further, bidder to provide unit rate against each BOQ item.							
7	As per our understanding no cabling shall be done for new inter/after cooler. Kindly confirm.	Refer above response against point no.4							
8	Kindly provide hazardous area classification layout.	Please note that hazardous area classification/explosion proof rating is already mentioned in all E&I items of respective BOQ part and specification as well. Bidder to quote the unit rate as per respective BOQ item therefore, this document is not necessary at this stage and will be provided to successful bidder during execution.							
9	As per our understanding no calculation study is required i.e. load flow study, short circuit analysis, relay coordination etc	Please refer Single Line Diagram Doc# 0106-ELB-6601 note#8, which states that Contractor is responsible for the selection of MCC Vendor who shall shall carryout following min. studies to further ascertain the values of initial and peak shrt ckt currents at all section of switchgear/MCC during different operation scenerios;  - Load flow - Short circuit - Relay co ordination  However, short circuit rating mentioned on SLDs are minimum to consider by the bidder.							
10	We understand that only BOQ quantities shall be considered final for procurement. Any addition shall be treated separately	Bidder to quote unit rate and total Cost for each item as per quantities mentioned in submitted BOQs. Any additional quantity if required in future will be charged accordingly.							
11	Lighting shall be provided as per BOQ and installed as per layout. No study is considered while any addition to any line item shall be treated separately	Lighting shall be installed as per Lighting layout. Lighting calculation / study is not required.							

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Sr. No.	Bidder Query	OGDCL/ENAR Response (18-Oct-2019)		
12	Earthing shall be provided as per BOQ and installed as per layout. No study is considered while any addition to any line item shall be treated separately	Earthing shall be installed as per Lighting layout. Earthing calculation / study is not required.  However, any additional earth rods, cables and other material if required to achieve the earth resistance value less than 50hm shall be provided by the bidder.		
13	We understand that load requirement is just for produced water pump and lighting. As inter/after coolers are being dismantled and their cables shall be packed for future use and no new cables are available in BOQ then please explain their use in new LV panel i.e. SB-01A, SB-01B & SB-01C			
14	Refer to BOQ (Electrical Installation E2) Doc No: 0220-GA-8001-5 (PS-506), the specification no 0220-ELA-6507 does not contain the Cathodic Protection System Specifications . Please provide the required specification document.	Please refer Spec. No.0220-GA-8001, section NO. 3.17.1 for the scope for cathodic protection system.  Further, please note that Design and installation of CP System shall be carried out through NACE CP Technologist or / I-Corr Certified having at least 10 years' of relevant experience.		
15	Please provide the piping size and length of oily water and closed drain to be required for the estimation of Cathodic Protection System	Please refer Mechanical BOQ 0220-GA-8001B-03, PS - 311B for piping size and quantity.		



#### **BLOWDOWN VALVE** (Automatic Ball Valve)

DATA SHEET NO. 0220-IDS-6011 SHEET NO. 1 OF 1 DATE 18-Oct-19 REV. PREPARED BY AMH CHECKED BY SJA APPROVED BY NAS

ENAR PETROTECH OWNER: OIL & GAS DEVELOPMENT COMPANY LIMITED (OGDCL) SERVICES (PVT.) LTD.

	SERVICES (PVT.) LTD.	OWNER: OIL & GAS DEVELOPMENT COMPANY LIMITED (OGDCL)					
1	Tag Number	PROJECT:	QADIRPUR COMPRE	SSION PROJECT 15-BDV-008A	15-BDV-008B	15-BDV-008C	
2	Service			Blow down Valve After Cooler	Blow down Valve After Cooler	Blow down Valve After Cooler	
3	Line No.			Outlet (E-1502A) 3"-G-BA2-25021	Outlet (E-1502B) 3"-G-BA2-25121	Outlet (E-1502C) 3"-G-BA2-25221	
4	Piping Class			ANSI 300 LB RF	ANSI 300 LB RF	ANSI 300 LB RF	
5	P&ID No.			97033-AR025-A1	97033-AR031-A1	97033-AR037-A1	
6	PROCESS SERVICE CONDITIONS			71033-AK023-A1	77033-AR031-A1	7/033-AK037-A1	
7	Fluid			D 0		P. G	
8				Raw Gas	Raw Gas	Raw Gas	
_	State		(T. (1.)	Single phase	Single phase	Single phase	
9	Maximum Flow		(lb / hr)	5597	5597	5597	
10	Maximum Inlet Pressure		(Psig)	260.5	260.5	260.5	
11	Maximum Temperature		(°F)	145-170	145-170	145-170	
12	Gas Compressibility Factor			0.974	0.974	0.974	
13	Specific Gravity at Oper Cond. for Liquid			-	-	-	
14	VALVE BODY						
15	Valve type			Full Bore Ball	Full Bore Ball	Full Bore Ball	
16	Body Size / Rating	Note-1		3" / SCH 80	3" / SCH 80	3" / SCH 80	
17	Body Material	Note - 1		Carbon Steel Forged-A-105 CAST - ASTM A216 GR WCB	Carbon Steel Forged-A-105 CAST - ASTM A216 GR WCB	Carbon Steel Forged-A-105 CAST - ASTM A216 GR WCF	
18	Flange Rating / Flange Face Finish	Note - 1		ANSI 300 LB RF	ANSI 300 LB RF	ANSI 300 LB RF	
19	Control Characteristics			ON/OFF	ON/OFF	ON/OFF	
20	Ball Material			316SS	316SS	316SS	
21	Shaft Material			17-4PH/316SS	17-4PH/316SS	17-4PH/316SS	
22	Seat Type / Material			Soft seat / RPTFE Insert	Soft seat / RPTFE Insert	Soft seat / RPTFE Insert	
23	Shut-off Class / Leakage			Tight Shut-Off /Class VI	Tight Shut-Off/Class VI	Tight Shut-Off /Class VI	
24	Fail Action			Fail to Open	Fail to Open	Fail to Open	
25	Max. Valve Stroke Time (Closing)			30 seconds/VTA	30 seconds/VTA	30 seconds/VTA	
26	Max. Valve Stroke Time (Opening)			5 seconds/VTA	5 seconds/VTA	5 seconds/VTA	
27	ACTUATOR						
28	Actuator Type			Pneumatic Spring Return Piston	Pneumatic Spring Return Piston	Pneumatic Spring Return Pistor	
29	Valve Duty (On/Off or Control)			ON-OFF	ON-OFF	ON-OFF	
30	Fail (Open/Close)			Open	Open	Open	
31	Air Supply Pressure		(Psig)	60 - 110	60 - 110	60 - 110	
32	Pneumatic Connection Size		(	*VTA	*VTA	*VTA	
33	SOLENOID VALVE						
34	Туре			3-Way	3-Way	3-Way	
35	Power Supply			24VDC	24VDC	24VDC	
36	Enclosure Material			Cast Aluminum	Cast Aluminum	Cast Aluminum	
37	Electrical Cable Entry			M20 x 1.5	M20 x 1.5	M20 x 1.5	
38	Manual Override			Yes	Yes	Yes	
39	Electrical Area Classification	Note - 2			Ex'd' IIB T4		
40	Enclosure Protection	Note - 2		Ex'd' IIB T4 IP65	IP65	Ex'd' IIB T4 IP65	
41	LIMIT SWITCH			11703	1103	11703	
42	Switch Type			Micro Switch Contact Type	Micro Switch Contact Type	Micro Switch Contact Type	
43	Quantity			Two (Open + Closed Position Switches)	Two (Open + Closed Position Switches)	Two (Open + Closed Position Switches)	
44	Tag Numbers			15-ZSO-008A/15-ZSC-008A	15-ZSO-008B/15-ZSC-008B	15-ZSO-008C/15-ZSC-008C	
45	Contact Rating			24VDC 5A	24VDC 5A	24VDC 5A	
46	Enclosure Material			Cast Aluminum	Cast Aluminum	Cast Aluminum	
47	Electrical Cable Entry	Note - 3		M20 x 1.5	M20 x 1.5	M20 x 1.5	
48	Electrical Area Classification	Note - 2		Ex'd' IIB T4	Ex'd' IIB T4	Ex'd' IIB T4	
49	Enclosure Protection			IP65	IP65	IP65	
50	ACCESSORIES						
51	Hand Wheel			No	No	No	
52	Filter Regulator / Gauge	Note - 4		Yes	Yes	Yes	
53	Air Accumulator Tank	Note - 5		No	No	No	
54	Tag Plate			Yes	Yes	Yes	
55	NACE Compliance	Note - 6		Yes	Yes	Yes	
	NOTES:						

- 1- as per ASME B16.10.
- Approval for Electrical / Hazardous Area Classification shall be from CENELEC, ATEX, Factory Mutual (FM), IEC or Canadian Standards Association (CSA).
- Common junction box shall be provided for both limit switches. Junction box shall have two (02) entries with one (01) Ex'd' certified plug.
- Filter regulator, solenoid valve, gauge and all accessories shall be provided installed on valve body. Pneumatic connections shall use 316SS tube and connectors.
  - N/A
- All wetted parts shall conform to NACE MR-0175 / ISO 15156 (latest edition). Blow down valve shall be fire resistant and shall meet requirements of API 607.
  - VTA Vendor to Advise