



UCH COMPRESSION PROJECT



**Design Engineering, Procurement (Supply), Construction, Installation/Erection, Pre-Commissioning, Commissioning & Start-up (including performance testing and Reliability Guarantee Test) of Compression System at UCH Compression Project
Tender Enquiry No. PROC-FC/CB/PROJ/UCH(COM)-4462/2019**

PRE-BID CLARIFICATION - 16

SR No.	Tender Document Reference	Statement	Query	Response
1	CL-4462-12	4.4 Signal Transmission Analogue (Vibration) : 3-w ire vibration sensor >>> COMPANY reply : Kindly refer project document 0221-GS-9510-3 (Spec for Centrifugal Compressors) in this regard.	Specification is relative only to TurboCompressor units, that is required to be provided with vibration systems monitoring system. Please clarify if a plant vibration monitoring systems is existing in UCH-II Control Room, in order to utilize it (expand or utilize spare slot) for monitoring other rotating equipments, outside TurboCompressor SOW, if necessary.	Bidder to note that existing Vibration Moniroting Systems shall not be utilized in this regard, it is dedicatedly installed with specific equipment.
2	CL-4462-13	n 8.2.4item in 0221-GS-9510-3 (Spec for Centrifugal Compressors), the fuel gas system shall include function of pressure reduction, primary separator, metering	Contractor understand that on fuel gas consumers common lines or for each turbocompressor fuel gas consumer line , flow measurement, according to 0221-GS-9510-3, it's only process measurement type; NOT CUSTODY/TAX measurement shall be foresee. Please confirm.	Refer Section 8.2.4, Point # I, 0221-GS-9510-3 (Spec for Centrifugal Compressors).
3	0221-IMA-6000	4.9.5 Shutdown Valves Hand Wheel A hand wheel and gearing where necessary shall be provided to allow manual operation of the valve, if specified by the COMPANY.	Contractor understands that all ON/OFF valves actuated by DCS or ESD are without manual handwell overraid (due to no request on P&ID). Please confirm.	Bidder understanding is correct
4	0221-IMA-6000	4.9.6 Control Valves Hand Operated Actuators Hand wheels where required shall be of the non-rising type with fine pitch threads for precise valve plug positioning. All threaded pats shall be precision fitted for minimum backlash.	Contractor understands that all control valve actuated by DCS are without manual handwell overraid (due to no indication on P&ID). Please confirm.	Bidder understanding is correct
5	0221-IMA-6002	7.5 Cable Installation General statement for Cables entry in building	Contractor understands that cables entry in building (not classified area) are through multi tubes sealed with properly foam without MCT solution. Please confirm.	Bidder understanding is correct; however bidder to confirm the existing scheme during pre-bid site visit and follow the existing philosophy.



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6	0221-IMA-6002	7.5 Cable Installation General statement for secondary cables distribution from JB to field instrument	Contractor understands that cables between junction box and field instrument could be installed using small cable tray 50mmX50mm , as last connection track. Please confirm or give clear guide line to hook-up. (this solution guarantee better flexibility and expansion in future). See attached sample for secondary electrical instrument Hook-up: file "Att.#1 - HOOK-UP-landC-ele.pdf".	Bidder to follow the existing scheme in this regard, this shall be further finalize during detail engineering stage with client consultation.
7	CL-4462-12	General statement for TLC systems inside new MCC building	Contractor understands that in new MCC building NOT to be foresees an intrusion detection systems (for example open doors contact intrusion detection , volumetric intrusion and similar) . Please confirm.	Bidder understanding is correct.
8	CL-4462-12	General statement for TLC systems inside new MCC building	Contractor understand that in new MCC building NOT to be foresee Access control systems (as example badge reader, and similar) . Please confirm.	Bidder understanding is correct
9	0221-IMA-6002	7.0 INSTRUMENT INSTALLATION General statement for instrument insatllation	Contractor understands that instrument heat tracing NOT to be foresee neither request by Company. Please to confirm	Bidder to note that detail engineering shall be conducted by the bidder and shall determine and provide where heat tracing is required.
10	P&ID: 0221-PB-2100	Isolation Philosophy	On New Compressor Suction Scrubber 251-V-201 A/B/C an ESDV is foreseen on liquid outlet. On New Slug Catcher M-210 no ESDV is foreseen on liquid outlet according to existing Isolation Philosophy on M-200 (LCV's will act also as ESDV's). Bidder understand that no ESDV shall be provided and existing philosophy / arrangement shall be followed.	For New Slug Catcher (M-210) only, existing philosophy i.e.similar to M-200, is followed in which LCVs act as ESDVs for M-210. Moreover, minimum requirements are mentioned in the Tender Documents. Bidder to design the compression facilities in such a way that the safe, continuous and trouble free operation shall be carried out for all the cases after firmed detailed engineering and safety studies. No price adder shall be entertained after award of contract.
11	P&ID: 0221-PB-2106	Isolation Philosophy - Fuel Gas System	Company to confirm if ESDV on New Fuel Gas KO Drum 251-V-205 is required on liquid outlet according to philosophy considered for New Compressor Suction Scrubber 251-V-201 A/B/C where ESDV is foreseen.	Minimum requirements are mentioned in the Tender Documents. Bidder to design the compression facilities in such a way that the safe, continuous and trouble free operation shall be carried out for all the cases after firmed detailed engineering and safety studies. No price adder shall be entertained after award of contract.



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12	P&ID: 0221-PB-2106	Depressurisation - Fuel Gas System	Company to confirm if automatic depressurisation with BDV is required on Fuel gas System or if, due to the small inventory, only manual depressurisation is acceptable according to actual P&ID configuration.	Minimum requirements are mentioned in the Tender Documents. Bidder to design the compression facilities in such a way that the safe, continuous and trouble free operation shall be carried out for all the cases after firming detailed engineering and safety studies. No price adder shall be entertained after award of contract.
13	P&ID: 0221-PB-2106	Depressurisation - Fuel Gas System	Bidder understands that no automatic depressurisation is required for Start-up Fuel Gas System based on the fact that this lines are used very few times in the plant life. Bidder highlights that also manual depressurisation is not present. Company is kindly request to confirm Bidder understanding related to automatic depressurisation and if manual depressurization to be added.	Minimum requirements are mentioned in the Tender Documents. Bidder to design the compression facilities in such a way that the safe, continuous and trouble free operation shall be carried out for all the cases after firming detailed engineering and safety studies. No price adder shall be entertained after award of contract.



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14	0221-DS-1706-0 (Instrument Air and Nitrogen Generation Package) 0221-PA-2011-B (Specification For Rotary Screw Compressor Package)	Instrument air compressor design	<p>Project specification and data sheet ask for an API 619 oil injected air compressor. On the contrary, Bidder asks the possibility to quote manufacturer standard oil injected screw compressors for the following reasons:</p> <p>- API 619/ ISO 10440-1 is applicable only to process screw compressors. Applicability of API 619/ ISO 10440-1 is as per definition "used for vacuum or pressure or both in petroleum, petrochemical, and gas industry services. It is intended for compressors that are in special-purpose applications. It is not applicable to general-purpose air compressors, liquid-ring compressors, or vane-type compressors. Standard air compressors are covered in ISO 10440-2." Proposed compressors are not under special purpose category because they are not continuous and they have a spare unit. ISO 10440-2 is applicable only for oil free air compressors up to 0,2 MPa (2 bar), while project air compressor design pressure is much higher (10 barg) and it is oil injected. Therefore neither API 619/ ISO 10440-1 nor ISO 10440-2 are applicable.</p> <p>- Due to the above reason, most of suppliers in vendor list are not able to quote an API 619 compressor because it is not available in their portfolio.</p> <p>Please confirm that manufacturer standard oil injected screw compressor is acceptable.</p>	EPCC to provide best and reliable solution as per requirements mentioned in tender document. Furthermore, EPCC to also identify & provide any variation/deviation from provided code & Standard i.e. API-619/ISO-10440-1 on vendor/supplier letterhead and also provide reference codes & Standard followed for each component & testing of the package with the bid proposal.
15	0221-DS-1706-0 (Instrument Air and Nitrogen Generation Package)	Instrument air oil content	<p>In par. 2.2 instrument air oil content shall be < 0.01 ppmw (ISO class I). In par. 2.4 instrument air oil content shall be 0.1 mg/m3 (ISO class II).</p> <p>Please confirm that max oil content shall be < 0.1 mg/m3 (ISO class II) as per par. 2.4.</p>	Confirmed
16	SEC-III SOW	Chp. 5,0 Instrumentation and Control Engineering General statement for supervision and management of electrical network	Contractor understand that new plant electrical network shall be supervised and managed from a dedicated control systems included in electrical SOW. ICSS only interface electrical MCC cabinet for process motor control by SW link signals exchange. Company please to confirm.	Bidder to refer Tender document "INSTRUMENT LIST" Doc. No 0221-LT-6000-0, for status and command signals to be integrated between Control Systems and MCC.
17	P&I Diagram 50571-F-208	Tie In "TIP 13"	Please provide As buit copy of piping arragement to identify the location of existing line 10 F-A2-2201, info missing in the ITT documentation received by bidder.	Bidder to carry out pre-bid site visit to gather any additional information as tender document possess sufficient information for scope clarification.



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18	P&I Diagram 50571-F-208	Tie In "TIP 04"	Please provide As built copy of piping arrangement to identify the location of existing line 8" CD-A4-3207, info missing in the ITT documentation received by bidder.	Bidder to carry out pre-bid site visit to gather any additional information as tender document possess sufficient information for scope clarification.
19	P&I Diagram 0221-PB-2106	Sales Gas Header	Please provide As built copy of piping arrangements & P&I diagrams of existing sales Gas header in order to identify the Tie in point with new line 6"-TG-DA2-5001, info missing in the ITT documentation received by bidder.	Refer Note-2 of the referred P&ID i.e. 0221-PB-2106. Further, bidder to carry out pre-bid site visit to gather any additional information as tender document possess sufficient information for scope clarification.
20	P&I Diagram 0221-PB-2203	Relocation of 6"-FW-AG-5139	Please provide As built copy of piping arrangements of Fire water Network in order to identify the new Tie in point of the relocated line 6" fire water AG-5139, info missing in the ITT documentation received by bidder.	Bidder to carry out pre-bid site visit to gather any additional information as tender document possess sufficient information for scope clarification.
21	SEC-III SOW	Chp. 5,0 Instrumentation and Control Engineering General statement for process motor control	Contractor understand that communication between DCS and motor intelligent device on MCC are through MODBUS TCP/IP protocol. Company please to confirm.	Bidder to refer Tender document "INSTRUMENT LIST" Doc. No 0221-LT-6000-0, for status and command signals to be integrated between Control Systems and MCC.
22	SEC-III SOW	4.0 Electrical Engineering General statement for supervision and management of electrical network	Due to the fact that it is requested in SOW to upgrade existing Electrical control system(ECS), please provide for UCH-I e UCH-II reference for: - ECS vendor name - ECS model and type - ECS date of installation	We understand that Bidder wants to know the details of existing MV Switchgear manufacturer for UCH-1 & UCH-II, where tie-in and modification works will be performed in the subject project. The details are as follows: Production type: P1X-12, Vendor name: SCHNIDER Electric, Pakistan Year of production: 2013-2014
23	SEC-III SOW	4.0 Electrical Engineering General statement for supervision and management of electrical network	Please clarify the communication protocol to be utilize between electrical intelligent device (example protection , motor drive ...) and ECS.	Please refer project single line diagram and specification, wherein details about status and command signals interfacing with Control systems are already listed and detailed. Further, please refer INSTRUMENT LIST" Doc. No 0221-LT-6000-0, for status and command signals to be integrated between ICSS and MCC. Since the project is feed based, therefore, any additional protocols, if required, to communicate aforesaid indicated signals and to make new system compatible with existing system shall be provided by EPCC contractor and shall be decided during detail engineering. However, in either case, minimum requirement as mentioned shall be ensued.