

**CLARIFICATION TO PRE-BID QUERIES / ADDITIONS**

**Tender No. F1/T-17/ELL Crane-ICG/2019-M**

**Name of work: - “Design, Manufacture, Supply, Erection, Testing And Commissioning of 1 No. 15 Ton Rail Mounted ELL Crane for Indian Coast Guard including AMC for a period of 5 Years after two Years Guarantee Period”-**

<b>Query No</b>	<b>Clause No</b>	<b>Existing Condition</b>	<b>Bidder's query / Proposal</b>	<b>Amendments / Clarifications</b>
1	Bid information regarding payment of EMD	Rs 31,40,000/- to be furnished either through demand draft or Banker's cheque drawn in favour of FA&CAO, CoPT from any nationalized or scheduled bank.	Whether foreign bidders can transfer EMD and tender fee by SWIFT to Cochin Port Trust. If agreed kindly provide bank details of CoPT	Tender condition stands good.
2	Page No 100/102, Payment terms (Cl No 26 of SCC)	Mob: Advance @5% of CIF value against submission of BG for 110 % of MA with 14% interest. Stage payment- For supply portion in stages of 60%, 20% as per billing schedule annexed on supply of material certification of TPIA against equal amount of BG. For erection part- In stages in the order of 20%, & 40% on erection of the crane up to central column and on completion of all structural items respectively. The balance amount for both supply and erection shall be released on after successful commissioning and handing over the equipment .	Mob: Advance @10% of CIF value against submission of BGt. Stage payment- For supply portion in stages of 60%, on mutually agreed billing schedule after certification of TPIA. terms 20% as per billing schedule annexed on certification of TPIA against equal amount of BG. For erection part- In stages in the order of 20%, & 40% on erection of the crane up to central column and on completion of all structural items respectively. The balance amount for both supply and erection shall be released on after successful commissioning and handing over the equipment . Also to relax the condition of BG for stage payment	Tender condition stands good.
3	Clause 6 i) 6 of Notice Inviting Tender of Tender Document - Last date and time of submission of bid	Last date and time of submission of bid is on 02.01.2020 15.00 hours	We request you to give due date extension for submission of offer upto 20/02/2020	Last date of submission of bid is extended up to <b>3 PM on 30/01/2020</b>
4	Clause 4.7.10 of SoW & TS	All auxiliary junction boxes, control boxes used in the crane shall be of SS material for preventing corrosion	It is proposed to supplement the possibility of installing terminal boxes made of plastic / polycarbonate with PVC cable entries with an appropriate degree of protection (IP) in the immediate vicinity of sensors, fixtures and other small devices.	Tender condition stands good.

5	<p>Clause 4.37 of Technical Specification - Section IV</p> <p><b>PART C: MAIN CRANE MOTIONS</b></p>	<p>The cranes shall be provided with independent machinery units for Hoisting, Luffing, Slewing and Long Travelling, each operated by their independent motor(s) with PLC and VVVF drives. The cranes shall be capable of performing all operations as per detailed in the tender specification. The motion shall be continuous, smooth with fine speed control.</p>	<p>It is required to clarify whether it is possible to combine ALL movements simultaneously. And to coordinate the combination of lifting, outreach and slewing at the same time, but without travelling. For Thus, such combinations are possible:</p> <ul style="list-style-type: none"> <li>- rise + outreach + slewing</li> <li>- outreach + slewing + travelling</li> </ul> <p>Is it possible for the travelling of the crane to be controlled by a separate joystick. Kindly clarify.</p> <p>It can be justified (in addition to the above) by reducing the simultaneously consumed power, which allows:</p> <ul style="list-style-type: none"> <li>- reduce the cross section of the supply cables from the substation (MES) to the crane column;</li> <li>- reduce the cross-section of the cable on the cable drum (CRD) and, possibly, reduce the size of the drum itself, its motor and gearbox;</li> <li>- reduce the cross-section of the power cables on the crane and the protective equipment ratings (MCCB), as well as use a smaller slip-ring current collector.</li> </ul> <p>All this will lead to some cost reduction.</p>	<p>Technical specifications stands unaltered.</p>
6	<p>Clause 4.38.5 of Technical Specification - Section IV</p> <p><b>LOCAL CONTROL PANEL</b></p>	<p>Local control panel with standard design shall be provided near the gantry leg for shifting the crane with all the necessary controls including switching on the crane and controls systems.</p>	<p>Please clarify what the purpose of this panel is. Turning on / off the power of the tap or something else?</p>	<p>Tender condition stands good.</p>
7	<p>Clause 4.38.6 of Technical Specification - Section IV</p> <p><b>TRAVEL ARM &amp; GANTRY PARKING BRAKE</b></p>	<p>Travel alarm and Gantry parking brake shall be provided.....</p>	<p>Does it mean additional brakes, in addition to anti-theft captures and brakes of gear motors?</p>	<p>It is hydraulic brake to arrest the movement of the crane from the parking position</p>
8	<p>Clause 4.38.16 (c) of Technical Specification - Section IV</p> <p><b>INTERLOCKS &amp; LIMIT DEVICES</b></p>	<p>The following interlocks and limit devices shall be fitted: c). Trip bars, trip plates or optical sensors are to be provided covering from near rail level to a height of 2 metre, positioned at each corner of the crane to cover the full width of the bogies in the direction of travel. They shall interrupt the long travel drive and apply the brakes if contacted or triggered by personnel or objects.</p>	<p>It is requested to accept possibility of using ultrasonic, radar and microwave sensors and systems for these purposes.</p>	<p>Accepted without any extra cost whatsoever</p>

9	Clause 4.52.1 of Technical Specification - Section IV <b>CONTROL EQUIPMENT</b>	4.52 Control Equipment 4.52.1 The main machinery house shall be suitably ventilated.....	It is requested to accept use of industrial air conditioners for electrical room only (E-Room). For the crane operator's cabin, please indicate the possibility of using conventional / general air conditioners	Accepted
10	Clause 4.53.8 of Technical Specification - Section IV <b>PLC, HMI &amp; VVVF DRIVES</b>	HMI: Size of the HMI shall be minimum of 16 inches and shall be provided as a touch screen system in Operator's cabin. HMI shall be capable to communicate with the PLC processor in open protocol and capable to handle all I/Os including analogue ones.	It is requested to accept a monitor with a diagonal of 15 inches, because in our experience, even a diagonal of 9 inches is sufficient. Siemens and Fuji HMI panels (listed on the list of authorized manufacturers) do not have 16-inch monitors, and the next size after 15 inches is already 21 inches, which seems redundant, leads to a sharp increase in cost and, due to its large dimensions, worsens ease of crane control and visibility from the crane operator's cab.	Acceptable
11	Clause 4.53.10 of Technical Specification - Section IV <b>DRIVES &amp; CONTROLS</b>	The drive system shall comprise of separate converter and inverter system for each of the motions.....	It is requested to accept the circuit with two rectifiers or converters and individual inverters for each mechanism. In the event of failure of one of the two rectifiers, the crane may continue to operate at lower speeds, or with a limited ability to combine working movements. The scheme proposed by the Customer (using individual rectifiers and inverters for each mechanism) when using Siemens frequency inverters with AFE (listed in the list of authorized manufacturers) is extremely economically inexpedient and actually does not allow the use of formally	Tender condition stands good.
12	Clause 4.53.10 of Technical Specification - Section IV <b>DRIVES &amp; CONTROLS</b>	Each motion drive shall be provided with HMI for reading parameters like I, V, load, speed, etc and suitable communication modules for communication with control system.	On Siemens frequency converters with AFE, such displays can only be installed on specialized control modules (there are 2 of them in the project). All the information of each frequency converter connected to this control module is displayed on them. Also, all information about the status of frequency converters can be displayed on the display in the cabin or in the electrical room. It is requested to accept this (above mentioned) solution. Otherwise, we have a situation with the actual inability to use formally authorized equipment!	Acceptable

13	Clause 4.59 of Technical Specification - Section IV <b>SOCKET OUTLETS</b>	A range of socket outlets with plug tops is to be provided within the machinery house and operator's cabin and at suitable locations inside and outside the crane structure as follows:	It is requested to accept sockets with a minimum current of 16 A. All manufacturers of industrial sockets known to us produce current sockets - 16A, 32A, 63A, etc. Thus, to fulfill the requirement of 20A, sockets with a rated current of 32A will be required.	Acceptable
14	Clause 4.70.3 of Technical Specification - Section IV <b>OPERATORS CABIN</b>	The operator's cabin shall be air conditioned as specified. The front window and the windows on both sides shall have ultraviolet sheltering glass, sliding and fixed with protection bars.....	It is requested to allow designing the cabin not only with sliding, but also with hinged windows.	Acceptable subject to the approval of TPIA
15	Clause 4.70.4 of Technical Specification - Section IV <b>OPERATORS CABIN</b>	The operations of hoisting, luffing, slewing and travelling shall be controlled from the cabin and shall be provided HMI indicating operation status including status of safety devices, fault status and resetting provision. All the controllers and other equipment necessary for operating the crane shall be arranged so that the operator can control accurately and quickly without leaving his seat. The position of the master controllers shall match with the existing arrangement of level luffing cranes in COPT/ ICG yard.	It is requested to allow use of non-fixed (with self-returning to the zero position) stepless joysticks for controlling the mechanisms of lifting, outreach, slewing. The direction of movement of the joysticks coincide with the direction of movement of the working bodies / mechanisms of the crane. Joysticks allow the combination of movements, can be equipped with buttons such as "dead man switch" to prevent inadvertent movement.	Acceptable subject to the approval of TPIA
16	Clause 4.4.1 of Technical Specification - Section IV <b>DESIGN PARAMETERS</b>	The crane shall be designed, built and tested to comply with the latest requirement of FEM OR Equivalent standards as specified in the tender. Steel Structure U4 -Q2- A3	Steel Structure U4 Q2 A3 - doesn't match FEM classification, U4 and Q2 matches A4 mode. It is requested to correct.	May be read as U4 Q2 A4 mode
17	Clause 4.4.5 of Technical Specification - Section IV <b>Design Requirements</b>	Hook Assembly Outreach(radius) Minimum 7 metre	It is requested to increase is min outreach to 8 metres.	Acceptable
18	Technical Specification - Section IV	Slewing mechanism location	It is requested to accept location of the slewing mechanisms outside the engine room with suitable design of drives for open air.	Acceptable
19	Technical Specification - Section IV	Boom structure	It is requested to accept 6 mm thickness of connecting pipes for the boom as it is sufficient to perform and doesn't overload the structure.	Tender condition stands good.
20	Technical Specification - Section IV	Steel makes	It is requested to accept the use European steels S355J2 S235J2 EN10025 in the project	Accepted
21	Technical Specification - Section IV	Control assembly	Is it possible to perform full control assembly in the Customer territory?	Acceptable

22	Technical Specification - Section IV	Approved vendors list	It is requested to include Siebenhaar (Germany) in Approved vendors list (GEARBOX)	Accepted.
23	Technical Specification - Section IV	Lifting mechanism	It is requested to allow use external disc brakes instead of drum flange brakes.	As per FEM Standard
24	Technical Specification - Section IV	Sheave bearings shall be mounted on sleeves as in IPSS -1-08-002-09	Please provide referred document - «IPSS -1-08-002-09»	It is SPECIFICATION FOR SHEAVES ASSEMBLY FOR EOT CRANE Based on IS 4137:1985.
25	Technical Specification - Section IV	Hook	It is requested to allow the of use hook according to DIN 15401 or 15402	Acceptable
26	Technical Specification - Section IV	2 electrohydraulic operated anchoring pins for storm wind	It is requested to allow manual drive for 2 electrohydraulic operated anchoring pins for storm wind	Tender Condition prevails
27	Technical Specification - Section IV	Rail clamp	It is requested to provide Please free rail profile value for rail clamp selection	CR 100 as given in design parameters data. The rail propfile value is as per FEM with latest amendments. The successful bidder shall dsign rail clamp, bogie wheels and assembly considering rail profile as above
28	Technical Specification - Section IV	«All crane wheels shall be of the double flange type»	Unclear, kindly clarify	This is standard item. Details are available with all crane manufacturers.
29	Clause 4.39.14 of Technical Specification - Section IV	Mechanical working radius indicator shall also be provided at a proper place on the revolving structure so that it is visible both from the cabin and the ground.	It is requested to allow use of electronic indicator of boom reach instead of mechanical	Acceptable
30	Technical Specification - Section IV	Drum brake	It is assumed that two planetary gearboxes are used in the slewing mechanism, drum brake and engine are mounted on each of them, is it correct? Should a dual brake be mounted on each gearbox? Please clarify	Acceptable
31	Technical Specification - Section IV	Regeneration system	Should regeneration system be used system in crane control system? Kindly clarify	Regenerative system may be in crane control system also
32	Technical Specification - Section IV	Foot brake	It is requested to exclude foot pedal brake requirement as old and rudimentary- normally closed drum-type parking brakes are used. Braking is carried out dynamically by motors.	Acceptable

33	Technical Specification - Section IV	Ladders, stairs	It is requested to allow design with outside spiral staircase (for slewing part of the crane) around the column for easy access due to small space inside the column.	Acceptable
34	Technical Specification - Section IV	Exits	It is requested to clarify the need for two engine room exits.	It is the requirement of CoPT. Hence Tender condition stands good.
35	Clause 5.a -Section I, Notice Inviting Tender - <b>Minimum Qualifying Criteria</b>	The bidder should have manufactured, supplied, erected and commissioned at least 1 No. Rail Mounted ELL Crane of capacity of 15 Ton or higher in at least one of the last 5 years ending 31st March 2019	Clause 5.a- Minimum Qualifying Criteria, Section I, Notice Inviting Tender prevails. "The bidder should have manufactured, supplied, erected and commissioned at least 1 (One) number Rail Mounted Electrical Level Luffing Crane of capacity of 15 Ton or higher capacity in at least one of the last 7 years ending 31st March 2019 and the product should be in successful operation for 2 years on the date of technical bid opening".	Tender condition stands good.
36	Clause 4.4.5 - Technical Specification - Section IV and <b>Scope of work &amp; Technical specifications</b>	Permissible voltage and frequency variations 10 %/9 % and frequency variations 3 %	Referred clause is in contradiction to Clause 4.22 where frequency variations is +5 %	Frequency variations shall be +5 %
37	Clause 4.25.4 of Technical Specification - Section IV	The ballast designed as a counter balance shall be under the scope of supplier.	We provide ready made aerial counter ballast whereas base ballasts for securing the crane should be casted at site as per the drawing provided by OEM and the necessary concrete, reinforcement and plyboards for preparing the boxes to cast the weights is to be provided by M/s.CPT as these weights are over 100 Tons and incurs a huge transportation cost.	Tender condition stands good.
38	Clause 4.25.13 of Technical Specification - Section IV - <b>Portal frame</b>	The crane portal to have minimum clear height of 6 metres to permit vehicle access	Referred clause is in contradiction to Clause 4.4.5 - Design Requirement, wherein portal height is minimum 4.5 metres	Portal height shall be at minimum of 4.5 metres
39	Clause 4.28.2 of Technical Specification - Section IV - <b>Paint</b>	After erection at site – One coat of modified epoxy paint of 60 microns thick (minimum).	This is not feasible at site because painting is a standard procedure and to achieve the required standard at site is not possible at all.	Tender condition stands good.
40	Clause 4.24.1 of Technical Specification - Section IV - <b>Out of service securing and storm anchors</b>	Hydraulically operated Rail Clamps shall be provided on each legs of the crane to clamp the crane to the rails.	Please note that automatic system with hydraulically operated rail clamps not available, how ever equivalent manual clamping system safe and secure enough to ensure crane safety is part of standard crane.	Tender condition stands good.

41	Cl. No. 4.12 of Technical Specification - Section IV <b>Schedule Notes:c)</b>	Supply of embedment like storm anchor, jacking base, end buffers, embedment to be casted in connection with the power feeding arrangement etc. which are to be installed along with civil works.	How it will be clubbed with Section 3 GCC Clause: Payments	This clause is to facilitate the successful bidder for hassle free execution of the work. Hence the conditions remain unaltered. The payment for the supplied items will be regularized as per the GCC, SCC and amendment thereto.
42	Clause 5.a -Section I, Notice Inviting Tender - <b>Minimum Qualifying Criteria</b>	The bidder shall manufacture, supplied, erected and commissioned at least 1 No. Rail Mounted ELL Crane of capacity of 15 Ton or higher in at least one of the last 5 years ending 31st March 2019	Relax specific experience criteria considering vast experience in the field. Being a GoI PSU, it may be exempted from the payment of EMD and cost of tender documents as being availed from other PSUs and Indian Railways.	Tender condition stands good.
<b>ITEMS INCLUDED BY COCHIN PORT TRUST</b>				
1	Include as item No 24 of 4.1 under Part J	In addition to the existing makes of materials, following makes are also acceptable 1. Electric motors (Motors) - SEW EURODRIVE, VEM PANZERFLEX/LAPP/CAVOTEC/WAMPLIER 3. Cables (LT POWER AND CONTROL CABLE <b>EXCLUDING TRAILING CABLE</b> ) - KABELTEC, ELETTROTEK 4. Cables (CONTROL / SIGNAL / COMMUNICATION CABLES ...) - TKD, KABELTEC 6. Lamps and searchlights (LIGHTS) - WISKA 7. Frequency converters and PLCs (VVVFDRIVES & PLC) - SCHNEIDER ELECTRIC, 8. Limit switches (LIMITSWITCHES) - GESSMANN, SICK, GIOVENZANA, MICROSONIC 9. Encoders (ENCODERS) - SICK 11. LOAD CELLS / INDICATOR - TAMTRON, SCHENCK 13. Brakes (BRAKES & BRAKE DRUM) - SHB, STROMAG 14. Industrial air conditioners (INDUSTRIAL AIR CONDITIONER) - FRIGORTEC, KERIM, KENTATSU 15. Master Controller: SIEMENS/OMEGA/SPEED-O-CONTROL/SCHNEIDER/ABB/		2. Trailing cable:
2	General	<b>One base station(VHF) along with two hand held sets are to be supplied and installed.</b>		