No. IPGL/ RFP/RMQC/2020/CLA/01

Dated: 1st March 2021

To,

All Prospective Bidders (by e-mail and through web-site)

Sub: Tender for "Design, Manufacture, Supply, Installation, Testing, Commissioning and Guaranteeing the performance of Four (04) Nos. of New RAIL MOUNTED QUAY CRANES (RMQCs) of 65 MT capacity, Post Panamax Size.

1. Clarifications/Corrigendum/Amendments to the pre-bid queries including amendments to the Tender clauses - reg.

2. Hindi version of forms/index.3. Schedule 19 and Schedule 20 4.OFAC letter31122019 5.OFAC letter 26082020 6. Approved LOM list

Ref: Tender No. IPGL/ RMQC / 2020.

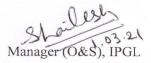
Sir,

1. With reference to the pre-bid meeting held on 18th September 2020, of the subject tender, please find attached herewith 1st round of pre-bid clarifications /amendments. These clarifications and amendments will also be available on the web-sites <u>http://ipgl.co.in/; https://sdclinidia.com and www.ipa.nic.in.</u>

2. As per clause 2.8 and 2.17 (Volume-I) of the Tender, these clarifications/ corrigendum/amendments so issued, shall form part of the Tender document and remain binding on the Tenderers, same shall be accepted and submitted by all the Tenderers along with the offer. Hence, you are requested to submit a copy of all Pre-Bid clarifications / amendments duly signed and stamped along with Original copy of the Tender documents. Tender received without copy of Pre-Bid Clarifications / amendments duly signed and stamped by the authorized signatory on each page, shall not be considered for evaluation. Rest of the Contents, Other Clauses, Annexure, Schedule, of the Tender remain unchanged.

3. Extension of due date and Time for Bid submission: It is informed that the due date and time for submission of offers under this tender has been extended up-to 15:00 Hrs. on 15th March 2021. The Technical bids of the offers so received by this date and time will be opened at 15:30 Hrs. on the same day i.e. 15th March 2021. The venues of the submission of the offers remain unchanged.

Kindly acknowledge the receipt of this communication. Yours faithfully,



Following clarifications are given to the tender specifications i.e. Volume – I of RFP for RMQC Cranes.

				Commercial		
Sr. No.	Volume-I & II Clause No.	Page No.	Tenders Specification Requirements	Queries		Clarification From IPGL
	Clause No.	No.	-	Queries Because of Iran's sanctions, we currently cannot guarantee that we are able to participate in this project. - We were informed that the development of the Chabahar port is excluded from the sanction list. Does it mean that the equipment supplier is automatically exempted from the sanction? Or does each equipment supplier needs to receive aOFAC license bythemselves? - Can IPGL help the equipment suppliers receive the OFACLicense? - In order to eliminate the risk of Iran's	a. b. c.	
				sanction entirely, we kindly request IPGL to confirm and guarantee that "RMQC" shallbe granted on the waiver of sanctions. And could you please provide us withcertain assurance and confirm if IPGL have all liability for sanctions?		doable.

Pre-Bid Queries for Tender documents

				 Unless we clear this matter, we would have big- trouble to join this project. In addition, we may be in trouble to obtain the bonds and open the LC considering this RMQC to be installed in Iran. What is your ideas and plan to preventthis problemsoccurred? Can you provide any advice on how can we deal with if those problemsoccurred? 	
2	3.42.3	45	-	We request that IPGL should guarantee that RMQC to be exceptional in Iran's Sanctions and the below clause shall be added in contract. IGPL shall indemnify and hold the Contractor harmless against any matters relating to sanctions.	
3	2.13	12	The Tenderers are required to quote their offer as per Price schedule of the tender document, in Euros or Indian rupees.	Should it be allowed to quote the price in US Dollar?	Tender Conditions Prevails.
4	2.18.3 d)	20	and within Fifteen days thereafter, successful tenderer shall submit performance guarantee as per clause 3.40.1 (Volume-I) and Annexure V. Within a week of submission of Performance BG, the Contract Agreement and Work Order shall be signed between the IPGL and the successful Tenderer.	Performance bond normally shall be submitted after signing of contract, also we have to submit the signed contract document to bank. So, we requests that this sentence to be amended as follows; The performance bond shall be submitted within 30 days after the contract signature between the IPGPL and the successful Tenderer.	Agreed. Revised clause 2.18.3 d) to be read as below : "The Tenderer whose bid is accepted by the IPGL shall be duly informed in writing. Within 15 days of receipt of

					intimation, regarding acceptance of its bid i.e. Letter of Acceptance (LOA),
					the Tenderer shall submit draft
					Contract Agreement and draft Bank
					Guarantee in the format approved by
					the IPGL as in the ANNEX – IV and
					V (Volume-I of Tender
					Document) and within 30 Days the
					Contract agreement shall be signed
					between the IPGL and the successful
					Tenderer. The successful tenderer shall
					submit performance bank guarantee as
					per Clause3.39 (Volume-I) of the
					tender document and Annexure - V.
					Concurrent with signing of the
					contract."
5	3.9.2	25	It shall be the responsibility of the successful Contractor to comply with all the required formalities for custom clearance for items stated in 3.9.1 atdestination port and pay	We suggest that custom clearance for items stated in 3.9.1 at destination port should be IPGL's scope and those shall be paid by IPGL.	Please refer clause 3.9.3.
			the, charges as applicable and take necessary clearance required from the customs department.		

6	3.9.4	25	If available, Office space including electricity and water, as indicated by the tenderer shall be provided on chargeable basis.	 Please clarify the meaning of "on chargeable basis". And we request to provide us with site office including electricity and water on condition that we pay for incurred cost for that. We requests that this clause to be amended as follows; Office space including electricity and water, as indicated by the tenderer shall be provided by Employer and any expenses and cost incurred for renting the office space shall be borne by IPGL. 	Tender condition prevails.
7	3.12	27	COMPLETION PERIOD OF WORK: Option 1: Supply of all 4 Nos. RMQC: within a period of 16 (Sixteen) months from the date of opening of Letter of Credit (LC).	RMQC project usually take at least 20 month and completion period of 16 months is too tight to complete all works. So we request that a total completion period should be 20 months from issue of letter of acceptance.	Tender condition prevails. Wherein two options are provided, bidder may choose either one.
8	3.17	28	USE OF GROUND:	For erection and installation work at Site, Iran, we kindly ask that purchaser shall obtain any approval from Iran government if necessary. It is simple and easier than contractor get approval. We propose to add the following terms. In case any Government permit, license, right of way, or any approval is required to use the area, IPGPL shall obtain from the relevant authority.	IPGL shall endeavors to facilitate at no cost to IPGL.

9	3.18.3	28	The explanation of Engineer-in- charge or his authorised representative shall be final and binding upon the Contractor and the Contractor shall execute the Works according to such explanations, and without extra charge or deductions to/from the Prices specified in the bill of quantities and do all such Works and things as may be necessary for the proper completion of the work as implied by the specification and drawings, even though such work and things are not specifically shown and described therein.	work period.We requests that this clause to be amended asfollows; The explanation of Engineer-in-charge or his authorised representative shall be final and binding upon the Contractor and the Contractor shall execute the Works according to such explanations. In the event that the Contractor disagrees withEngineer-in- charge's explanation, the relevant matter shall be	disagrees withEngineer-in- charge's explanation, the relevant matter shall be resolved in accordance with Article 3.50, 3.51and3.52 of this
---	--------	----	---	---	--

10	3.22.4	30	The Contractor shall at all times during the continuance of the Contract comply fully with all existing Acts, Regulations and bye law as including all statutory amendments and re-enactment of state, Central Government authorities and other local authorities and any other enactment and acts that may be passed in future either by the State or the Central Government or local authority, including Labour Laws, Factories Act, Minimum Wages Act etc.	Contractor shall be entitled to comply with all existing laws, but not laws to be passed in future. We propose to delete "in future" as below. other enactment and acts that may be passed infuture either by the State or the Central Government or local authority, including Labour Laws, Factories Act, Minimum Wages Act etc	Tender conditions prevails.
11	3.32	36	Terms of Payment	 30days from the date of against submission of a Bank Guarantee (b) 40 % of Contract Price shall be paid within 30days after commencement of erection and installation works of Equipment at Contractor's shop and submission of Bank Guarantee equivalent to 100% of Second 	 3.32 (b) modified as under Second stage: 60 % of CIF Price mentioned in LOA after shipment of the equipment to the final destination and submission of shipment documents of satisfactory evidence of this shipment of equipment. Documents required for second stage payment: (i) Original clean and shipped onboard Bill of Lading, 4 original, 3 copies

					 (ii) Commercial invoice,(03) copies (iii) Certificate of origin,(03) copies (iv) Packing list for each Crane Note: In case advance payment is
					not taken by the contractor,
					second stage payment after
					shipment of equipment to the
					final destination as 70% can be
					claimed by the contactor.
			Payments towards Spare Parts as listed out at Schedule – 10 (volume I) shall		Tender conditions prevails.
12	3.32.2	37	be made in two stages as mentioned below;	payments towards Spare Parts as listed out at	
12	5.52.2	51	below,	Schedule – 10 (volume I) shall be paid 100% CIF price mentioned in the LOA against delivery of Spare parts	
			Payment for rendering Warranty Support:	We requests that this clause to be amendedas follows;	Tender condition prevails.
13	3.32.3	37		Charges for rendering Warranty Support as mentioned in the LOA shall be paid each quarter during Warranty period as per clause	
				3.59 of the tender and issuance of certificate by the Engineer-In- Charge.	

14	3.32.4	38			Tender condition prevails.
15	3.34	38	Any claim for interest will not be entertained by the IPGL with respect to any payment or balance which may be in their hands owning to any disputes between themselves and the Contractor or with respect to any delay on part of the IPGL in making payment.	We would like to ask your acceptance that interest for delayed payment shall be paid by purchaser. We requests that this clause to be amended as follows; If the payment is delayed for more than sixty (60) day, the Contractor is entitled to interest for delayed payment by IPGPL. The interest rate for the delayed payment shall be calculated at the annual rate of the London Interbank Offering Rate (LIBOR) plus two percent p.a. of delayed payment.	Tender condition prevails.
16	3.40.1	44	SECURITY DEPOSIT TOWARDSADVANCE PAYMENTFOR OF CONTRACT(i.e. NEW 04 RMQCs): for an amount equivalent to 110% of the advance amount to be made	The advance payment bond shall have the same value as the advance payment. SECURITY DEPOSIT TOWARDS ADVANCEPAYMENT FOR OF CONTRACT (i.e. NEW 04RMQCs): for an amount equivalent to 100% of the advanceamount to be made	Tender condition prevails.

17	3.44.1	46	The value of such insurance shall be at least equal to 110% of the contract price of 04 no. new RMQCs excluding spare parts / tools cost.	We requests that this clause to be amended as follows; The value of such insurance shall be at least equal to 100% of the contract price of 04 no. new RMQCsexcluding spare parts / tools cost.	
18	3.44.2	46	The value of such insurance shall be at least equal to 110% of the contract price of 04 no. new RMQCs excluding spare parts / tools cost.	We requests that this clause to be amended as follows; The value of such insurance shall be at least equal to 100% of the contract price of 04 no. new RMQCs excluding spare parts / tools cost.	Tender conditions prevails.
19	3.43	45	c) as liquidated damages, a sum equivalent to 1 % per week orpartthereof, up to a maximumdeduction of the percentageof10% ofTotal Contract Price,	we would propose 0.5% per crane per week, with the cap 5%.	Tender conditions prevails.
20	3.48	48	IPGL'S LIEN	In our understanding, normally the contractorreserves the right of lien. So please clarify this clause and delete this.	Tender conditions prevails.
21	2.1.1	5/6		Corrigendum: Note 3 and Note 4 as detail on the right column has been added.	Note 3: Preference will be given to Make in India firm to achieve the vision of Hon'ble PM - 'Atmanirbhar Bharat '. Subject to the meeting MEC criteria. Note 4: Department of Expenditure Order (Public Procurement No.1) dated 23 rd July mandating that bidders

	Attached Appendix "B" Schedule 20
	Attached Appendix "A" Schedule 19
	Delhi.
	No.236A,Udyog Bhawan, New
	office of Joint Secretary (MKN),DPIIT,Room
	filled in, may be submitted in the
	Clearance" in the format, duly
	Complete application containing both "Registration" and "Security
	enclosed as Appendix "B".
	Clearance" in the format
	submit application for "Security
	the format enclosed as Appendix "A". Bidders are also required to
	application for "Registration" in
	in India, may submit an
	participate in public procurement
	countries which share land borders with India and intend to
	have beneficial ownership in
	Accordingly, the bidders, who
	the competent authority.
	only if they have registered with
	to bid in public procurement.
	border with India will be eligible
	having beneficial ownership in countries which share land

22	2.4.1	5	2.4.1 The tender shall be accompanied by Earnest Money Deposit as stipulated in the tender notice. The tender not accompanied with EMD shall be treated invalid. The E.M.D. shall be submitted in the form of Bank Guarantee (BG) as per enclosed format at Annex-II (Volume-I of the Tender Document) drawn in favour of India Ports Global Limited, Mumbai, from any Nationalised / Scheduled Bank (Nationalised / Scheduled Bank shall mean a bank defined under section 2 (e) of the Reserve Bank of India Act 1974) having its branch at Mumbai. Alternatively, Demand Draft (DD), in favour of IPGL, Mumbai, drawn on any Nationalised / scheduled bank enlisted under RBI, payable at Mumbai, for specified amount in the tender for EMD, is also acceptable.	As IPGCFZ fully owned to IPGL, is it possible to issue EMD in favor of IPGCFZ instead of IPGL?	
23	Schedule 11, S.No.1, 2 &3.	97	CIF price for Design, Manufacture, Transportation and Supply of 4 units of RMQCs of 65 MT capacity Post Panamax to IPGL, Shahid Beheshti Port, Chabahar including Transit / Marine Insurance	Where to quote the Installation and Commissioning Price?	CIF price for Design, Manufacture, Supply, Installation, Testing,Commissioning and Guaranteeing the performance of 4 units of RMQC of 65 MT capacity post panamax to IPGL, Shahid Behesti Port, Chabahar

			etc as prescribed in the tenderdocument and including all other taxes, duties, levies if any, payable at country oforigin.		including Transit / Marine Insurance etc. as prescribed in the Tender Document and including all other taxes, duties, levies, if any, payable at country of origin.
24	3.1.21	22	General Conditions of Contract	Corrigendum: GCC 3.1.21 details on the right column has been added.	"Bidder" for the purpose of this Order (including the term 'tenderer ', 'consultant', 'Vender', or 'service provider ' in certain contexts) means any person or firm or company including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial judicial persons not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement

					process.
25	3.1.22	22	General Conditions of Contract	Corrigendum: GCC 3.1.22 details on the right column has been added.	Sub-Contracting in works of contracts
					In works contracts, including turnkey contracts, contractors shall not be allowed to sub- contract works to any contractors from a country which shares a land border with India unless such contractor is registered with shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 8 Department of Expenditure order dated 23 rd July,2020. This shall not apply to sub-contracts already awarded on or before the date of this order.
26	3.1.23	22	General Conditions of Contract	Corrigendum: GCC 3.1.23 details on the right column has been added.	Certificate regarding compliance

					A certificate shall be taken from bidders in the tender documents regarding their compliance with this order. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.
27	3.1.24	22	General Conditions of Contract	Corrigendum: GCC 3.1.24 details on the right column has been added.	Validity of registration In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validity registered at the time of acceptance/placement of order.
28	3.42.2	45	INDEMNITY	Corrigendum: 3.42.2 details on the right column has been added.	Further, it is clarified the Contractor shall not be liable for incidental, indirect or consequential damages to the

					extent such limitation of liability is valid under Indian law.
29	3.43	46	LIQUIDATED DAMAGES	Corrigendum: 3.43 details on the right column has been added.	h) The necessary Liquidated Damages shall be recovered by the Employer from any stage
					payment due to the Contractor in Euro/INR.
30	ANNEX- VI		FORM OF BANK GURANTEE (SUCURITY DEPOSIT)(FOR ADVANCE PAYMENT)		It is also hereby agreed that the Courts in India shall have exclusive jurisdiction in respect of claims, if any, under this Guarantee.
31	SCHED ULE 4-A	83	TRAINING SCHEDULE	Corrigendum: Details on training of first raw has been added on the right column.	 A) DRIVE,PLC &CMMS (02 Engineers) B) Mechanical System (02 Engineers)

32	2.1.1	5		Isgec will participate in the bidding process with M/s Bedeschi, Italy as a consortium partner.	In case of consortium only Leader of consortium shall participate as the bidder. And the Leader shall meet all technical and commercial criteria. The contract can be only awarded to the qualified bidder or the qualified Leaders of consortium.
33	2.1.1 (b)	5	of designing, manufacturing, Supplying and Commissioning of RMOCs, at least for the last Seven	for the last Seven (07) years. (Work order and completion certificate to be submitted for years	Consortium should be in the business of designing.
34	2.1.1 (c)	5	least Four (04) nos. RMQCs with similar or higher outreach and Lifting Capacity of 50 Tons and above under twin lift spreader, during any of the year in last Seven (07) years to the top	The tenderer or his consortium partner should have supplied at least Two (02) nos. RMQCs with similar or higher outreach and Lifting Capacity of 50 Tons and above under twin lift spreader, during any of the year in last Seven (07) years to the top Hundred Container Ports as per independent international publication such	The tenderer or the leader of the consortium should have supplied at least Four (04) nos. RMQCs with similar or higher outreach and Lifting Capacity of 50 Tons and

			independent international publication such as Lloyds list etc along with documentary evidence.	evidence.	above under twin lift spreader, during any of the year in last Seven (07) years to the top Hundred Container Ports as per independent international publication such as Lloyds list etc along with documentary evidence.
35	2.1.1 (d)	5	At least Two (02) RMQCs supplied in the last Seven (07) years must have completed warranty period satisfactorily. (Clients certificate to be submitted).	At least Two (02) RMQCs supplied in the last Seven (07) years by tenderer or his consortium partner must have completed warranty period satisfactorily. (Clients certificate to be submitted).	in the last Seven (07) years by
36	2.1.1 (e)	5	The tenderer should have supplied or is in the process of manufacturing at least Two (02) RMQCs during the last Five (05) years. (Work order and / or completion certificate to be submitted)	The tenderer should have supplied or is in the process of manufacturing at least Two (02) RMQCs or Ship unloader during the last Five (05) years. (Work order and / or completion certificate to be submitted).	consortium should have supplied or

37	SCHED ULE 9	89	STATEMNT OF DEVISTIONS		gendum: D ged as below t		tabular form		
				Sr. No.	Volume I/II Clause No./ Page No.	Proposed Deviatio ns	Justification for Proposed Deviations	Price Adjustment in Terms of Percentage	Remarks by IPGL

			Tech	nnical	
1	Volume II - 1.4.5		Seismic	Please confirm that seismic load will be considered only on structure design, but not considered on wheel load.	The design criteria are to protect both structure and rails. Moreover the crane structure shall be designed to withstand earthquake loads in accordance with the Japanese Building Code for seismic zone applicable to the site. The code shall be used for determining the seismic acceleration. Equivalent standards are also applicable.
2	-		-	For unloading method at site, the crane will be unloaded by skidding method at site. Please confirm this.	Latest safe practice of Unloading is acceptable.
3	-		-	What is the allowable civil bearing strength (ton/m2) of port (unloading area) for the purpose of unloading of the crane?	The maximum permissible distributed load on the surface of the quay is 5 tons/m2.
4	4.10 Motors	152	Terminal boxes shall be provided on the motors for connecting the powerCables. Motors mounted indoors shallbeIP54,(Hoist motors could be at leastIP23 Only where it is installed in environment controlled E- Room)	Is it acceptable that indoors motors will be IP 23?	Hoist motors could be at least IP 23 where it is installed in environmental controlled E-room other motors protection class shall be as the specification.
5	Part 1 – General	120	Seismic Seismic Design Data (minimum	As we know, the designated port is located in seismic sensitive area.	The design criteria are to protect both structure and rails.
	1.4.5 Seismic			Seismic isolators are proposed for	Moreover the crane structure

Following clarifications are given to the tender specifications i.e. Volume – II of RFP for RMQC Cranes.

		 values): Horizontal acceleration(50year): 0.34g Vertical (50%xhorizontal): 0.17g Vibration period of quay: X direction: 0.33 s Y direction: 0.45 s The design criteria is to protect both structure and the rails. 	the STS cranes. For the details of the seismic isolator, refer to attached seismic isolator package. Please confirm if it is acceptable.	shall be designed to withstand earthquake loads in accordance with the Japanese Building Code for seismic zone applicable to the site. The code shall be used for determining the seismic acceleration. Equivalent standards are also applicable. Proposed seismic isolators are acceptable.
6	Part 2 - 130 Structural 2.1 General	Structural steel shall be to BS EN10113 Grades S275N or S355N or equivalent. Steel shall be supplied with mill certificates for mechanical properties and chemical analysis. The Manufacture shall provide additional	Chinese steel grade Q355 is proposed for the main steel structure, which is equivalent to EN 10025 Grade S355. Please confirm.	Equivalent Steel shall be supplied with mill certificates for mechanical properties and chemical analysis. The Manufacture shall provide additional verification of quality requirements, including supplementary NDT and destructive tests as approved by the Buyer/TPIA

			verification of quality requirements, including supplementary NDT and destructive tests as approved by the Buyer.		
7	Part 2 - Structural 2.2 Stairs, Ladders, Walkways and Platforms	130	Stairs, ladders, walkways and platforms shall be designed and constructed in accordance with, BS 5395 Part 3. Stairs are preferred over ladders and shall be utilized wherever practicable. Ladders however may be incorporated into the cranes where stairs cannot be accommodated and subject to prior approval by the Buyer.	Please confirm if the stairs, ladders, walkways and platforms can be in accordance with BS EN ISO 14122-1 to 4	As per Technical Specification.
8	Part 2 -	131	Welding shall be	The steel structure will be	Acceptable subject to approval of

	Structural 2.3 Welding	undertaken in accordance with BS EN 1011-2:2001 Recommendation for welding of metallic materials. Alternative internationally recognized standards such as AWS D1.1 shall be employed, subject to prior approval by the Buyer.	fabricated in accordance with AWS D1.1. Please confirm.	buyer/TPIA in design stage
9	Part 3 – 133 Mechanical 3.1 Main Hoist	The main hoist mechanism shall be located in a machinery house and shall include electric motor(s) driving wire rope drum(s), two sets of fail-safe brakes, emergency brakes and a single totally enclosed gear reducer. In the event of failure of one	The crane will be designed with following capacities: <u>Twin Lift Mode:</u> • Rated load: 65t • Lifting system (headblock + spreader): 18t • Total load on rope: 83t <u>Cargo Beam Mode:</u> • Rated load: 85t • Lifting system (headblock + cargo beam): 7.5t: • Load on rope: 92.5t Please confirm.	As per technical specification.

		motor (twin motor hoist arrangements) it shall be possible to continue operating the main hoist at reducedspeed.		
10	Part 3 – 133 Mechanical 3.2 Trolley/Gantry Travel	The trolley shall be self-driven, mounted on rails. The design of the trolley shall be subject to approval from the Buyer. Four double flanged wheels shall support the trolley. The trolley travel mechanism shall include motor(s), fail safe brake(s), flexible geared coupling(s) and gearbox/speed reducer(s). It shall be possible to remove the motors without disturbing the brakes. Rain covers shall be provided for motors and brakes when these are mounted outside of	Automatic hydraulically operated clamps and rail brakes are mentioned in the technical specification. Normally, either is used for gantry travel. We propose one rail brake for each corner of the crane. Please confirm.	According to the technical specification

			machineryhouse.		
11	Part 3 – Mechanical 3.15 Wire Ropes	143	Rope drums shall be made of high strength steel and shall have accurately machined grooves to suit the wire ropes. Each drum unless otherwise approved shall have sufficient capacity to carry the required length of the ropes in a single layer. Drums shall be statically balanced and stress relieved. Drum grooves shall have sufficient depth to ensure minimum wear on wire ropes. End plates and drum construction shall be	We propose the safety factors of the wire ropes in accordance with the industry standard practice as follows: <u>Main Hoist</u> Safety in concentric condition: 6 Safety in eccentric condition: 5 <u>Trolley</u> Safety factor: 6 <u>Boom Hoist</u> Safety factor: 5	Technical specification shall be followed.

			capable when used in conjunction with emergency calliper brakes of stopping the maximum rated free falling load. Emergency braking shall be initiated by monitoring the drum speed using an absolute shaft speed encoder, when an over speed is detected the emergency brake shall be applied automatically. The system shall be failsafe.		
12	Part 4 – Electrical 4.10 Motors	152	All motors shall be 400 V, AC, 50 Hz type, i.e. in nominal speed and nominal load (for hoist nominal load under spreader), the voltage shall be 400V and the frequency shall be 50 Hz.	The specification says that all motors shall be 400VAC, 50Hz. We propose the voltages to be determined by electrical system integration. And the proposal will be finalized in the bid submittal.	Tender Condition Prevails.
13	Part 4 –	152	All of trolley, hoist and boom hoist motors shall be equipped	The specification requires that all the trolley, hoist and boom motors	Technical specification shall be followed

	Electrical 4.9 Motors		with separated cooling system controlled by thermostat of motor stator frame and timer to continue cooling the motor at least 5 minutes after stopping.	shall be equipped with separate cooling system. But only main hoist motors shall be supplied with forced cooling system as per the proven design and industry practice. And the trolley and boom motors have sufficient capacities without separate cooling systems. Please confirm.	
14	Part 4 – Electrical 4.9 Motors	152	Main drive motors shall be compatible with AC variable frequency drives, maintenance free, and shall be suitably rated for the duty (min. class S3, S5 preferred, duty type 80%). Main hoist, gantry and trolley travel motors shall be designed for high number of starts per hour and in compliance with the cranes group of classification and lifetime	The IP levels for the main motors are proposed as follows: Main hoist: IP 23 Trolley: IP 55 Boom hoist: IP 23 Gantry: IP 55 Please confirm.	Hoist motors could be at least IP 23 where it is installed in environmental controlled E-room other motors protection class shall be as the specification. Other Motors IP 55 or higher then accepted.
15	Part 4 – Electrical 4.19 Lighting	159	Floodlights shall be vibration proof and have individual power factor correction. The floodlight design shall enable changing of the bulb without	We propose LED lamps for floodlights instead of metal halide lamps. Please confirm.	Acceptable, however other criteria to be met as per technical specification.

16	Part 4 – Electrical 4.11 Variable Speed Drive and Control System	154	removing the reflector or glass. Metal halide lamps for the floodlights shall be of the 'screw on', outdoor type fitted with spring loaded anti-vibration bulb sockets. Ballast for the floodlights shall be installed inside the machinery house and labelled according to the identification of thefloodlights. Circuit boards shall be rack mounted type for ease of maintenance. Circuit boards shall function when the environment in the enclosed panels reaches a temperature of 50 degree Celsius with a humidity of 100%. The circuit boards shall be able to function under these conditions in the event of failure of the air conditioner.	Siemens engineer in china replied that the driver did not work at the temperature of 50 degree Celsius with a humidity of 100%, they suggest that the temperature of 40 degree Celsius with a humidity of 95% and without condensation.	Technical specification shall be followed.
17		154	The variable speed drives shall be able to operate with two modes of control, i.e. Closed Loop Flux	Siemens engineer in china replied that the drivers of the hoist and the boom did not work normally in SVC mode, it is dangerous in this	Technical specification shall be followed.

			Vector Control (FVC) with speed feed back encoder and Sensorless Open Loop Vector Control (SVC) in case of speed feedback loss (caused by failure of encoder, encoder interface card or wiring). Change over of inverter program from FVC mode of control to SVC shall be easily possible by a switch in the E-room (accessible only by authorized maintenance staff). SVC control mode is the high torque control mode. Load free falling is not accepted in this mode of control	mode for the hoist and the boom; they recommend using the mode in emergency situations.	
18	1.5	120	Description of the Crane. The Manufacturer shall also supply one set of spare single lift telescopic spreaders suitable for handling above containers, one unit 85t heavy lift cargo beams incorporating ram shorn hook with safety catches and one unit telescopic over height frames (TOF).	 Additional 1 set of Single lift spreader and 85 MT heavy lift cargo beam is part of the main supply or part of Supply of Spare Please confirm. Additional 1 set of Spreader and cargo beam shall be consider for each machine or only 1 set for all 4 nos of machine please clarify Price of Additional 1 no of spreader and Cargo beam shall be included in Schedule 11 Part -2 or Schedule 11- Part II . please Confirm 	As per Technical Specification.
19	1.9	122	Interfaces with Civil works. Mean of Higher High Water:	Please provide the infrastructure drawing in AUTOCAD format	Not Applicable.

			MHHW +2.53 mCD • Mean of Lower High Water: MLHW +1.93 mCD • Mean Sea Level : MSL +1.61 mCD • Mean of Higher Low Waters		
			 Mean of Higher Low Waters MHLW +1.28 mCD Mean of Lower Low Waters MHLW +0.69 mCD Quay and yard : New quay level: +5.00 mCD The theoretical weight and maximum wheel loads for the crane shall be declared by the tenderer. 		
20	1.9	122	Interfaces with Civil works The design value for the vertical uniformly distributed load allowed on the rails is 65t/m with a maximum vertical point load of 80t. The design lateral load on the rails is a UDL of 5t/m.	Allowable maximum wheel load shall be confirm	According to the technical specification
21	1.9	122	Interfaces with Civil works The crane shall be supplied complete with end of track buffers, storm anchor sockets and cable connection pit equipment such as funnel, anchor drum, cable joint box and accessories. Cable connection pit equipment shall be in stainless steel unless otherwise approved.	Client shall provide the electrical supply up to cable joint box. (Junction Box) please confirm	Before start of design the supplier shall have a site survey to assure crane shall will be supplied complete with end of track buffers, storm anchor sockets and cable connection pit equipment such as funnel, anchor drum, cable joint box and accessories. Cable connection pit equipment shall be in stainless steel unless otherwise

					approved.
22	2.1	130	Structural –General. The crane structure shall be designed to withstand earthquake loads in accordance with the Japanese Building Code for seismic zone applicable to the site. The code shall be used for determining the seismic acceleration	The crane structure shall be designed to Euronorm standard EN 1090 with safety factors for bulging acc. to FEM. The Dynamic factor for loadbearing steel structure will be used in accordance to FEM 1.001.	As per Technical Specification
23	3.1	133	Mechanical - Main Hoist. Duplicate sets of fail-safe brake assemblies shall be fitted on the drive.	It seems that additional 1 nos Emergency break assembly shall be fitted on the drive as a stand by .Please clarify	As per technical specification.
24	3.16	144	Wire rope Main hoist ropes are to be reeved symmetrically, and supplied as left hand and right hand lay to avoid torque-induced rotation of the load. Boom hoist ropes and trolley ropes (if supplied) shall be right hand lay only (shall be in compliance with the related drum groove).	Lay of cable shall be decided during detail engineering as per the Design requirement	Agree however Single lay rope is not allowed. And it shall be in compliance with technical specification
25	3.24	147	Crane Wash down System The crane shall be equipped with a suitable clean water wash down system incorporating	Terminal Point for water supply shall be specify	Storage tank shall be filled up at the suitable location.

		storage tank, pumps, fixed pipes, valves and hoses. The storage capacity of the tank and pressure / flow provided at the discharge points shall be sized to ensure thorough cleaning of the crane structural surfaces can be achieved during routine maintenance shutdowns.		
26	Appendix –A	List of Manufacturer for Mechanical and Electrical	The suppliers / makers of the main components as well as sub components are apprehensive to supply for this project as they are unaware of this project being exempted from sanctions. Hence at any stage deviations in maker list may be accepted. Additonally we have prepared the suitable alternatives as an annexure -1 and attached for your ready refrence and approval. Client to confirm the same.	The LOM list can not be changes after bid submission.