



Tender No: INFRA/ISRF/234/2022

23 September 2022

**EXECUTION OF REMAINING PART OF TURNKEY WORK FOR THE
CONSTRUCTION, SUPPLY, ERECTION & COMMISSIONING OF PLANT &
MACHINERY FOR INTERNATIONAL SHIP REPAIR FACILITY (ISRF)**

CORRIGENDUM No. 2

REPLY TO PRE-BID QUERIES AND AMENDMENTS TO TENDER DOCUMENTS

Pre-bid Meeting in connection with Tender No: INFRA/ISRF/234/2022 dt. 19 August 2022 was conducted on 17 September 2022 at CSL Administrative building, Perumanoor PO, Kochi – 682015. Pre-bid meeting commenced at 10:00 Hrs and concluded at 12:00 Hrs. Replies against queries received from prospective bidders and amendments to tender documents is enclosed as Corrigendum No: 2.

All other terms and conditions of Tender No: INFRA/ISRF/234/2022 dt. 19 August 2022 remains unaltered.

S/d-

General Manager (Tech & Infra Projects)

Cochin Shipyard Ltd.



NAME OF THE WORK: EXECUTION OF REMAINING PART OF TURNKEY WORK FOR THE CONSTRUCTION, SUPPLY, ERECTION & COMMISSIONING OF PLANT & MACHINERY FOR INTERNATIONAL SHIP REPAIR FACILITY (ISRF)

TENDER NO: INFRA/ISRF/234/2022

CORRIGENDUM No: 2 - REPLY TO BIDDER'S QUERIES (GENERAL & CIVIL WORKS)

Sl No:	Reference Clause	Page No	Description	Bidders Queries	CSL Reply
1				Mark-up sketch of different area / system / facility (Separate sheet if required to highlight like left out pockets in foundation / bolt details for foundation for structure , equipments etc.), which shall differentiate that the job is already carried out by the earlier LSTK agency Vs. further job will be carried out by the successful bidder.	Current status of civil works is already provided in Vol-II B, Special conditions of contract(SCC). Bidders may please note that tender is invited on " As is where is" basis and hence bidders are required to carryout detailed site visit/inspection and collect further additional details if any required.
2				There are deductions shown in the tender for the jobs already executed, but there is no detail information is available for such deduction and shall not be hold good arbitrary for all areas , a detail guide line shall be drawn for the applicable location / system.	Bidder may note that deduction is applicable only for deduction items mentioned in the bill of quantities such as reinforcement steel, structural steel, rail fixtures etc.
3				The existing facility may not be suitable and adequate for further continuation to complete the job in full and many cases the dismantling , complete removal, modification , strengthening is required and such cases are not clearly specified in the tender document.	All details required for submitting the bid and continuing further with the work are available in the tender documents (Please refer Bill of quantities, Technical specifications, conditions of contract etc.)
4				We suggest to avoid the above dispute, the following items may be incorporated for better execution as optional item in the BOQ. a) Complete removal of whole or part thereof, of existing facilities and rebuild the same. b) Strengthening of existing facilities like:- Equipment Foundation, Pipe Sleepers / Rack, Slabs, wall, special support, Equipment Nozzles etc c) Already supplied equipment placed on foundation/structure or not. Also those equipments/structures required refurbishing /overhauling or not d) Existing pipe line additional flushing, Drying, Pickling or Painting required or not e) Over all system final painting	Bidder's request is not acceptable. Tender condition prevails
5	Sl.No.1.3 of General Information of ITB	6	Background of Project	a) It is mentioned in this clause that 78% of total Scope of Work has been completed. Please provide the structure wise detail of remaining work along with the weightage breakup to be taken care under this package. b) Dredging/De-silting works will be executed or not. c) Sheet Pile if required, please provide the length and tentative depth of the same. d) Balance scope of work shall be indicated by markup sketch for different area/system/facility.	a) Current status of civil works is already provided in Vol-II B, Special conditions of contract(SCC). Bidders may please note that tender is invited on " As is where is" basis and hence bidders are required to carryout detailed site visit/inspection and collect further additional details if any required. b) Dredging of ISRF basin area is being undertaken through a sepearte contract. However, enabling dredging work if any required on account of work methodology chosen by the contractor has to be carried out by the contractor at no extra cost to CSL. Similarly, De-silting required in connection with floating gate support structure works, fixing of sacrificial anodes, sliding panel etc. has to be carried out by the contractor as per Bill of Quantities. c) Length, depth etc. of hot rolled sheet pile sections are already indicated in Vol-VIII, Tender level drawings d) Current status of civil works is already provided in Vol-II B, Special conditions of contract(SCC). Bidders may please note that tender is invited on " As is where is" basis and hence bidders are required to carryout detailed site visit/inspection and collect further additional details if any required.

6	Sl.No.1.3 of General Information of ITB	7	Scope of Work	As per scope of work, detail engineering & drawings are not in the Scope of Bidder. Bidder has to execute the Scope of Work based on approved for construction drawings provided by CSL and payment will be made as per BOQ items rate of this package - Please confirm.	Tender condition prevail. Bidders may note that for civil lumpsum works (Such as ETP/STP, Landscaping works etc.) and works on account of contractor's chosen methodology of construction(temporary structures, precasting etc.), detailed design, engineering and submission of good for construction drawings is in the scope of the contractor. In addition to above, preparation of relevant shop drawings is also in the scope of the contractor. In the case of E&M works, no further drawings will be issued. Contractor shall prepare the detailed drawings as per particulars mentioned in Schedule of rates/BOQ, specification and drawings. All lumpsum works shall be designed by the contractor and drawings shall be submitted for approval.
7	Sl.No.3.2 of Clause no.6, Summary of ITB	36	Cost Breakdown	It is mentioned that Lump Sum Cost Breakdown for major items to be submitted with the Financial Tender / Price Bid. As it is competitive bidding of item rate tender, cost breakdown for major items should be deleted at the time of bid submission. If required, the same may be provided during finalisation of Contract. - Please confirm.	Bidder's request is acceptable. However, if requested by CSL, successful bidder is required to furnish cost breakdown of Lump sum items during contract finalization stage or at any stage during the tenure of the contract.
8	Sl.No.g, Sheet Piles of Clause No.1, Scope of Work of Vol-III, Employer's Requirement	10	Sheet Piles	As it is item rate tender, Bidder will not be in position to ensure the safety and stability of very old existing rubble masonry water front wall and Sheet Piles wherein no structural details are available with CSL, the complete safety and stability shall be studied by CSL only. Therefore, it's proposed that CSL will ensure the safety and stability of the said wall & Sheet Piles by suitable specialised Agency prior to commence of any activities nearer/adjacent to this said wall. - Please confirm.	Bidder's request is not acceptable. Tender condition prevails
9	Clause no.110 of GCC	107	Defects Liability Period (DLP)	Any defect observe during DLP for any portion of different existing incomplete structures executed by earlier Agency and sale item (deduction) as per BOQ should not be applicable to the Bidder of this Package. And also any defects found on new work reasons due to earlier executed structures should not be attributable to the Bidder of this Package. For any design related issue bidder shall not be responsible. However, for workmanship for the scope of this package, the DLP shall be applicable. - Please accept & confirm.	DLP for this tender is applicable only for the work(s) executed by the new contractor. Damages(if any) to existing structures, sale items(deduction items), departmental supplied items etc. caused by the new contractor (successful bidder) during the tenure of the new contractor has to be made good by the new contractor itself. Bidders may note that for lumpsum works (Such as ETP/STP, Landscaping works, MVWS system,electrical works related to mechanical systems etc.) and works on account of contractor's chosen methodology of construction(temporary structures, precasting etc.), detailed design, engineering and submission of good for construction drawings is in the scope of the contractor.
10	Clause no.103 of GCC	95	Security Deposit (SD)	i) As per the provision of GCC, Retention Money @5% of R.A. Bill will be retained as SD or Bank Guarantee of 5% of Contract Value as SD shall be released on completion of 1(one) year DLP/Guarantee period. ii) Performance Security @3% of Contract Value in form of BG shall be released on completion of 2(two) years DLP/Guarantee Period. - Please confirm. iii) However, we propose that the DLP shall be covered under 3% PBG by the bidder, SD/Retention Money shall be released after completion of job. - Please confirm.	Bidder's request is not acceptable. Tender condition prevails
11			Modifications / Rectifications	Expenditure towards any modification / rectification of existing incomplete structures are required during execution under Scope of Work of this Package, should be paid separately. In this regard, financial implication will be submitted	Bidder's request is not acceptable. Tender condition prevails
12	Item ID-L.1.0		Land Development	Refer item ID-L1.1, please confirm the royalty on excavated materials within project boundary will be applicable or not. If applicable, please furnish the Royalty cost of per Cu.m of excavated materials.	Bidders are advised to collect details regarding royalty on excavated materials directly from Mining and geology department.
13	Item ID-D.0.0		Demolition and dismantling work	Please clarify "the segregated debris shall be sold for backfilling / any other reuse offsite" as mentioned in description. Disposal outside to premises shall not be bidder scope.	Note provided against BoQ item No: D.0.0 stands deleted.

14	Item ID-C.2.0/ C.3.0/C.4.0/C.5.0/C.6.0/C.7.0/ C.9.0		Reinforced Cement Concrete (RCC)	All RCC works will be executed including cost of shuttering /Formwork. As bidder has to execute the left-out job under this package, it is very much difficult to quote the RCC items with shuttering. We request you to provide the shuttering items of sub-structure & super-structure works separately to quote our offer.	Bidder's request is not acceptable. Tender condition prevails
15	Item-ID-C.15.0		TMT Reinforcement	All required laps with existing Reinforcement Steel of unfinished structures will be measured and paid in this item. - Please confirm.	All approved laps with existing Reinforcement Steel of unfinished structures will be measured and paid under relevant item in BoQ.
16	Item ID-2.01 & 2.02		Installation of Transfer & Crane Rail System	As desired, Bidder has to quote this 2 items on L.S basis based on assessment and inspections of existing left-out jobs. It is very difficult to quote this items on unfinish structures wherein modifications, different types of materials and other so many activities are involved. We propose the L.S items shall be bifurcated with different items and quantity may be indicative in such case and shall be paid on actual.	Bidder's request is not acceptable. Tender condition prevail
17	NIT		Last date of submission	This tender comprises of multidisciplinary work with involvement of various specialized Sub-vendors. Considering the quantum of items involved, consequent interaction with Sub-Vendors for getting their offers and arriving at the reasonable price of various bought-out items, estimation & compilation of left-out works of all unfinished structures, the time available to us prior to submission of our offer is inadequate i.e. 30-09-2022(upto 15:00 Hrs.). In view of above, the date of submission of the subject tender may please be extended upto 20-10-2022, enabling us to participate and submit our most competitive offer.	Considering the request from bidders, Last date and time of submission of bid is revised to 15:00 Hrs, 21 October 2022.
18	NIT			Since lot of time is requested for detailed study and preparation of competitive bid, we request you to kindly extend the date of submission of the bid by one month(i.e. upto 31st october 2022) we request you to consider the above favourably for us to participate in the tender.	Considering the request from bidders, Last date and time of submission of bid is revised to 15:00 Hrs, 21 October 2022.
19				Period of completion of the work involved require more time as it is a left over job of peculiar nature scattered all over area and also due to the anticipated disturbance of work by the local trade union.Hence a period of 24 months maybe granted.	Considering the request from bidders, the period of contract is amended as 15 Months from the 30th date of work order or site handing over whichever is later
20				M/s SIMPLEX should remove all balance equipment & machinery from site before the commencement of the work	Previous CME contractor is taking actions to remove balance equipments & machinery from the site premises. Bidders may refer to Vol-II B, Special conditions of contract, Clause No: 16 and may please take note that site shall be handed over in full or parts on "As is where is" basis.
21				Please confirm whether M/s Simplex has settled all labour issues with the local trade unions. In case, if any further dispute is raised by the unions or any other agency, CSL will have to take the responsibility for settlement and we will be free from such obligations.	CSL is presently not aware of any pending labour issues between M/s Simplex and local labour unions. Bidders may note that neither CSL nor the successful bidder shall be liable for any obligations of the old CME contractor to any third party. However, successful bidder shall be responsible for settlement of disputes(if any arising) with trade unions/agencies applicable on account of new CME contract.
22				To confirm whether the site of work is under control of CISF. If so free entry/ exit to be made available for men and vehicles without delay at the gate.	Bidders may note that site of work is not under the control of CISF

23	Sl.No.1.6.1 of Minimum Qualification criteria of ITB		Financial Turn Over, Net worth and Profitability	<p>Average annual financial turn over, net worth during the last three years ending 31st March 2022 shall be at least Rs.240 Crores. An attested copy of audited balance sheet and profit & loss Account for the preceding 3 years has to be submitted in proof of financial turn over, net worth and profitability. Year in which no turnover is shown would also be considered for working out the average financial turnover per annum. Profit after tax (PAT) during the last three years ending 31st March 2022 shall be positive. Normally for similar projects the net worth is kept at 40 to 75 % of PAC and not at par with the tender PAC of 240 Cr, as stipulated in ITB clause 1.6.1 in the tender. We request you to amend the above clause and keep networth to maximum 75% of Tender PAC instead of 240 Cr as in the ITB.</p>	<p>Minimum Qualification Criteria is amended as follows:</p> <ol style="list-style-type: none"> 1) Average annual financial turn over during the last three years ending 31st March 2022 shall be at least Rs 170 Crores. An attested copy of audited balance sheet and profit & loss Account for the preceding 3 years has to be submitted in proof of financial turn over. Year in which no turnover is shown would also be considered for working out the average financial turnover per annum. The value of annual turnover figures shall be brought to current value by enhancing the actual turnover figures at simple rate of 7% per annum. 2) The bidder should not have incurred any loss (profit after tax should be positive) in more than two years during available last five consecutive balance sheet (balance sheet in case of private/public limited company means its standalone financial statement), duly audited and certified by the Statutory Auditors. 3) Net worth during the financial year ended 31st March 2022 shall be at least 100 Crores. 4) The tenderer shall furnish latest financial capability/solvency certificate for an amount not less than Rs. 100 Crores as per the proforma at Annexure-15 along with the tender document, from his bankers/ financial institutions, to the effect that the tenderer is financially sound and has sufficient resources for executing the works as per schedule. 5) Bidders should have bidding capacity equal to or more than the estimated cost of the work put to tender. The bidding capacity shall be worked out by the following formula: $\text{Bidding Capacity} = \{[A \times N \times 1.5] - B\}$ Where, A = Maximum turnover in construction works executed in any one year during the last seven years taking into account the completed as well as works in progress. The value of completed works shall be brought to current costing level by enhancing at a simple rate of 7% per annum. N = Number of years prescribed for completion of work for which bids have been invited. B = Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited.
24				We should be permitted to work round the clock including sundays.	Contractor is free to work round the clock including Sundays & Night shifts

25			Please provide us the auto CAD drawings of the project.	Auto CAD drawings shall be shared with successful bidder post award of contract.
26			According to the BOQ and specifications, many materials have already been purchased and are on site, as well as fabrication of some parts of steel have been completed; the contractor is instructed to use the same and the quantity available has been deducted from the BOQ. What if the complete quantity specified in the deducted BOQ is no longer suitable for use.	Bidders may refer to Clause No: 65 of Vol-II B, Special conditions of contract
27			In the Notice Inviting Tender, point 2, it is specified that the quantity shown in the tender schedule is only indicative, and the bidders must assess the exact requirements of the project. Please confirm the billing will be based on the exact quantity executed.	For civil works, the Contractor shall be paid for the theoretical quantity or actual quantity of the work done whichever is lower at the approved rates in the Bill of Quantities for each item. In the case of M&E items, please refer Clause 46.2 & 49.2 of Volume II B - Special Conditions of Contract
28			According to the specification, a DLP of 24 months is required. Does it include the paint finish on steel structures? BOQ specifies a paint finish that is not suitable for coastal areas.	DLP of 24 months includes the paint finish on steel structures
29			Provide AutoCAD drawings of the shared PDF drawings for quantity takeoff and design.	Auto CAD drawings shall be shared with successful bidder post award of contract.
30			Kindly requesting extension of tender submission - 30th October 2022	Considering the request from bidders, Last date and time of submission of bid is revised to 15:00 Hrs, 21 October 2022.
31			Project duration specified in the document is a bit tight, we request you to kindly extend the duration to 24 months	Considering the request from bidders, the period of contract is amended as 15 Months from the 30th date of work order or site handing over whichever is later
32			we wish to intimate yourself we are very much interested to participate in the subject tender and that to prepare an exact estimation as per your requirement and to make our best competitive offer we need few more time and accordingly, you are kindly requested to extend the due date of the bid submission by at least 3 weeks from the present submission date.	Considering the request from bidders, Last date and time of submission of bid is revised to 15:00 Hrs, 21 October 2022.

Corrigendum No. 02 (Reply to Prebid Queries - Mechanical System)

SI No	Reference Clause	Description	Tenderer Suggestion/ Query	CSL / TCE Reply
1	Sl. No. 3 of Mechanical works price bid	Installation, testing and commissioning of Atmospheric Vaporizer for Oxygen, (Make M/s. INOX) Already available at site	Kindly furnish the weight and dimension of Atmospheric Vaporiser for oxygen and the scope of work of M/s. INOX against the same.	2 Nos. vaporizers for Oxygen system are already erected on the pedestal foundation at ISRF site. Remaining installation & commissioning works need to be carried out by the Contractor. Weight of each Vaporizer is 385 Kg and dimensions: 2645 mm (H), 1069 mm (B), 1825 mm (L)
2	Sl. No. 4 of Mechanical works price bid	Installation, testing and commissioning of Atmospheric Vaporizer for Carbon - Dioxide (CO2), (Make M/s. INOX) Already available at site	Kindly furnish the weight and dimension of Atmospheric Vaporiser for carbon di-oxide and the scope of work of M/s. INOX against the same	2 Nos. vaporizers for Carbon Dioxide system are already erected on the pedestal foundation at ISRF site. Remaining installation & commissioning works need to be carried out by the Contractor. Weight of each Vaporizer is 385 Kg and dimensions: 2645 mm (H), 1069 mm 1069 mm
3	Sl. No. 5 of Mechanical works price bid	Complete interconnecting piping between Liquid Storage tank for Carbon - Dioxide (CO2), Vaporiser	Kindly furnish the quantum of job in MOC wise inch dia, inch mtr, MT of supporting, valves and instruments. The stipulated UOM is in lot	This being a lot item, Bidder has to refer the drawing no. 329/CSL/PID/GAS/004 (P&ID FOR CARBON DIOXIDE GAS STORAGE & DISTRIBUTION SYSTEM) for details
4	Sl. No. 6 of Mechanical works price bid	Complete interconnecting piping between Liquid Storage tank for Oxygen (O2), Vaporiser	Kindly furnish the quantum of job in MOC wise inch dia, inch mtr, MT of supporting, valves and instruments. The stipulated UOM is in lot	This being a lot item, Bidder has to refer the drawing no. 329/CSL/PID/GAS/003 (P&ID FOR OXYGEN GAS STORAGE & DISTRIBUTION SYSTEM) for details
5	Sl. No. 7 of Mechanical works price bid	Complete Acetylene storage yard with all interconnecting piping	Kindly furnish the quantum of job in MOC wise inch dia, inch mtr, MT of supporting, valves and instruments. The stipulated UOM is in lot	This being a lot item, Bidder has to refer the drawing no. 329/CSL/PID/GAS/002 (P&ID FOR ACETYLENE GAS STORAGE & DISTRIBUTION SYSTEM) for details. In addition, NOC no. A/G/SE/KL/06/321(G53328 dated. 13-11-2019 issued by PESO for the storage of DA gas in cylinders placed along with "Site Data Package" of the tender may also be referred..
6	Vol V Mechanical Works Specifications	List of drawings	Kindly furnish the drawings as mentioned in the List of drawings	Drawings pertaining to mechanical system is part of Vol-VIII (Tender Level Drawings)
7	Sl. No. 1.1 and 1.2 of page 5 of VOLUME V – Technical Specification for Mechanical Works	1.1 Fixed speed, Air cooled, Oil Lubricated type packaged rotary screw compressor units and microprocessor-based control panel and of following Rating:Capacity: - 10.0 bar (g) at 1100 CFM (± 5%), Quantity: - 1 Set (1W+0S) 1.2 Variable speed, Air cooled, Oil Lubricated type packaged rotary screw compressor units (with inbuilt/separate VFD drive) and microprocessor based control panel and of following Rating: Capacity: - 10.0 bar (g) at 1100 CFM (± 5%) Quantity: - 3 Sets (2W+1S) This is minimum requirement, bidder to quote for suitable model	The following are the queries / comments from approved vendors : Vendor 1 : Being an OEM of Compressor and Dryer our recommendation is that if all the 4 Compressors are going to be installed in a same header for the same purpose then for best energy saving option it must be 3 Fixed Speed machines and 1 VSD/VFD machine so that the system can save and run in most synchronised way, as during full mode operation 2 Fixed speed machine will operate and 1 will be in complete standby mode and the VSD will intelligently adjust itself as per the systems requirement. Vendor 2 : Instead of going for 3 VFD machines and 1 Fixed speed machine, it is recommended to go with 1VFD and 3 Fixed Speed Machines. If the 4 machines are in the same plant requirement and if the total requirement will go up from 3300CFM then only the VFD machine will run / start and will run at the required load. So that you will get the energy savings in this way. Also in your clause No.1.8 it is mentioned "The operation shall be such that fixed speed compressor shall start first and then" sequential start of other VFD operated compressor shall be done. Vendor to provide if separate panel is required. Based on the above statements from two approved vendors, we request you to kindly confirm their recommendation / proposal.	Tender condition shall prevail
8	Sl. No. 1.4 of page 5 of VOLUME V - TECHNICAL SPECIFICATION FOR MECHANICAL WORKS	Vertical, fabricated Air receiver with instruments and accessories provided with minimum two (2) no. of suitably sized safety valves to relieve the full compressor discharge capacity. Air receivers will be design as per ASME Section VIII Division I with all instruments and accessories. Inside Compressor Room Capacity : 10 m3 Quantity: - 1 Nos. Air Receiver for shop area Capacity: 02 m3 Quantity: - 4 Nos.	The following are the queries / comments from approved vendors : Considering safety, we never recommend to keep any pressure vessel within the Compressor room it must be outside. Kindly confirm	Tender condition shall prevail
9	Sl. No. 1.13 of page 6 of VOLUME V – Technical Specification for Mechanical Works	Recommended spares Quantity- Lot One set of recommended spares for 2 years trouble free operation . Contractor to furnish the list as along with this tender	Kindly clarify whether quote for only consumables is required or Breakdown parts (if any) also needs to be considered.	Bidder to finalise the list of recommended spares in consultation with OEM's of respective items.
10	Sl. No. 2.2 of page 7 of VOLUME V – Technical Specification for Mechanical Works	SHOP INSPECTION AND TESTING The CONTRACTOR's scope of work shall include arranging stage inspections and performance tests, as per approved Quality plans and criteria as mentioned and described below PERFORMANCE TESTING Compressor sets shall be tested at varying loads at manufacturers works/site prior to dispatch of the sets to site. The performance tests at the works shall be carried out in presence of authorized representative from CSL /Consultant. Due notice for the program of performance testing at works shall be given to the CSL /Consultant to enable them to arrange for their representatives for this inspection to be at manufacturers works/site for this inspection and testing.	Requesting you to omit this terms and consider the duly signed and attested Test Reports by OEM.	Tender condition shall prevail
11	Sl. No. 4.11h and 4.12h of page 10 of VOLUME V – Technical Specification for Mechanical Works	Compressor air suction end shall be of "Repairable Air End" compatible for replacing the bearing without completely dismantling or replacing the entire equipment air suction end.	Air End shall be repairable but to repair the same only the Air End (Screw Element) needs to be dismantled from system. Kindly confirm acceptance of the same.	Confirmed
12	Sl. No. 8 of page 12 of VOLUME V – Technical Specification for Mechanical Works	SYSTEM PERFORMANCE GUARANTEE The CONTRACTOR shall guarantee that upon completion of work, all installed systems there of shall be in full accordance with the requirements of the contract and shall be perfect as to materials and workmanship and shall remain so for a minimum period of twenty- four (24) months or 5000 hrs. from the date of successful commissioning and Total ISRF project completion . For any failures during performance warranty period, the parts shall be supplied at supplier cost including freight, tax and servicing / repair (including labor).	SYSTEM PERFORMANCE GUARANTEE Period will be of 12 months or 4000 Hrs only from the date of Commissioning of the equipment (whichever is earlier). Kindly consider the same	Tender condition shall prevail
13	Sl. No. 20 of page 49 of VOLUME V – Technical Specification for Mechanical Works	Vortex Flow Meter	Considering faster lead time, request to include Forbes Marshall in the approved vendor list	Makes proposed by Bidder is accepted subject to compliance with the technical specification.
14	Sl. No. 23 of page 49 of VOLUME V – Technical Specification for Mechanical Works.	Motors	Due to Higher lead time of the given Motor Brands kindly include the below mentioned vendors also Marathon, Atlas Copco, WEG, Ingersoll Rand branded motor	Makes proposed by Bidder is accepted subject to compliance with the technical specification.
15	Sl. No. 28 of page 49 of VOLUME V – Technical Specification for Mechanical Works	LV VV VFD	Due to Higher lead time of the given VFD/VSD Brands kindly include the below mentioned vendors also Atlas Copco (NEOS), WEG etc	Makes proposed by Bidder is accepted subject to compliance with the technical specification.

SI No	Reference Clause	Description	Tenderer Suggestion/ Query	CSL / TCE Reply
16	Sl. No. 29 of page 49 of VOLUME V – Technical Specification for Mechanical Works.	PLC	Due to Higher lead time of the given PLC Brands kindly include the below mentioned vendors also SCHNEIDER, Honeywell, Emerson Control.	Makes proposed by Bidder is accepted subject to compliance with the technical specification.
17	Sl. No. 6 of page 51 of VOLUME V – Technical Specification for Mechanical Works	PERFORMANCE GUARANTEES 6.1 Capacity of Compressor at rated speed Bidder to confirm AC-Fixed Speed – CFM AC-Variable Speed – CFM 6.2 Discharge pressure - 10 Bar.(g)	The following are the queries / comments from approved vendors : Technically CFM at site cannot be shown as at site no standard condition will be there to be referred properly. Hence we request to accept the flow as given in the Test Certificates only, rest Pressure, few major Interlocks / protection and tripping's can be shown if proper safety permission and condition can be availed proactively. Kindly confirm.	Tender condition shall prevail
18	Design Data of Air Receiver	CORROSION ALLOWANCE 3mm	CORROSION ALLOWANCE 1.5mm	Tender condition shall prevail
19	Design Data of Compressed Air System	Discharge Pressure 10 bar	Kindly confirm whether 10 Bar is discharge pressure or 10 Bar is required as application pressure	10 Bar is Discharge pressure
20	Sl. No. 11.9.1 of VOLUME V – Technical Specification for Mechanical Works	Rated Input Voltage(V) Suitable for 415+10%, threephase	Kindly accept Rated Input Voltage(V) Suitable for 415+5%, three-phase	Tender condition shall prevail

CORRIGENDUM NO:2 (PREBID REPLIES-ELECTRICAL)

Sl.No.	Page No.	Description	Reference Clause No.	Tenderer Suggestion /Query	TCE/CSL Reply
1	Electrical Works Price Bid Serial No.1 (1.1 1.2 1.3 1.4)	Regarding SLD	Electrical Works Price Bid Serial No.1 (1.1 1.2 1.3 1.4)		
			MRS - IP 4X, 11 kV Switchgear Panel comprising of : A) 02 No. 11kV, 630A, 26.3kA / 3 Sec VCB Incoming feeders as per 11kV SLD and specification B) 03 No. 11kV, 630A, 26.3kA / 3 Sec VCB Outgoing feeders including spare, as per 11kV SLD and specification C) 01 No. 11kV, 630A, 26.3kA / 3 Sec VCB Bus Coupler feeders including bus transfer cubicle if required, as per 11kV SLD and specification SCADA requirements within the panel also shall be ensured	Please provide the SLDs (Power ,protection & metering) as mentioned in "Electrical Works Price Bid " Description.	Electrical SLDs already provided and power, protection & metering shall be referred from the same. All detailed control, metering and protection drawings shall be provided by contractor based on PARTICULARS mentioned in SCHEDULE OF RATES, Specification and drawings .
2	Electrical Works Price Bid Serial No.4	Regarding change of voltage ratio of transformer in future	Electrical Works Price Bid Serial No.4		
			500 kVA with percentage impedance as 4%(no negative tolerance),copper wound, 0.440 kV, 60 Hz / 0.460 kV 60 Hz as per specification and drawings Neutral shall be taken out for earthing to outside as well as to the low voltage side terminal box (CSL is having an option to change voltage ratio to 0.415KV/0.460KV during execution of the project which shall be done, if insisted, without any cost implication)	Whether tap changing on secondary side shall be provided to meet this requirement, so that it will take care of any reduction of voltage at primary side during service	Noted and vendor shall comply all technical requirements. $\pm 5\%$ taps in steps of 2.5% shall be provided.
3	Electrical Works Price Bid Serial No.7 (Serial No. 7.1 to 7.3.3)	Regarding SLD	Electrical Works Price Bid Serial No.7 (Serial No. 7.1 to 7.3.3)		
			LV SWITCHGEARS as per specification and drawings. SCADA requirements within the respective panel also shall be ensured	Please provide the SLDs (Power ,protection & metering) as mentioned in "Electrical Works Price Bid " Description.	Electrical SLD s already provided and power, protection & metering shall be referred from the same. All detailed control, metering and protection drawings shall be provided by contractor based on PARTICULARS mentioned in SCHEDULE OF RATES, Specification and drawings
			PCC1 (Power control centre) - 415V, 4000A, Busbar current density shall not exceed 0.8A/sqmm,Al, 100% neutral and as per Specification and SLD.		
			PCC2 (Power control centre) - 415V, 4000A,Busbar current density shall not exceed 0.8A/sqmm,Al,100% neutral and as per Specification and SLD		
			MLDB 1 (Main Lighting distribution Board) - 415V, 630A,Busbar current density shall not exceed 0.8A/sqmm,Al,100% neutral and as per Specification and SLD		
			MLDB 2 (Main Lighting distribution Board) - 415V, 100A and as per Specification and SLD		
			ADB (MES-1) - 415V, 630A, Busbar current density shall not exceed 0.8A/sqmm,Al,100% neutral as per Specification and SLD		
			ADB (MES-2) - 415V, 630A, Busbar current density shall not exceed 0.8A/sqmm,Al,100% neutral as per Specification and SLD		
			ACDB (MRS) - 415V, 125A as per Specification and SLD		
			460V, 60 HZ ACB Panel for Industrial Frequency Converter and Isolation transformer as per SLD and specification		
			RFPs, 415V, 50Hz, 630A, INCOMER, Combination plug board and outgoings as per SLD and specification		
			FCs, 415V, 50Hz, 250A ,INCOMER and outgoings as per SLD and specification		
			380V,50HZ LV Switchgears		
			PCC3 (Power control centre) - 400V, 630A,Busbar current density shall not exceed 0.8A/sqmm,Al,100% neutral as per Specification and SLD		
			PCC5 (Power control centre) - 400V, 1000A,Busbar current density shall not exceed 0.8A/sqmm,Al,100% neutral as per Specification and SLD		
			FCs,380V,50Hz, 400A as per SLD and specification		
			440V, 60HZ LV Switchgears		
PCC4 (Power control centre) - 440V, 1000A, Busbar current density shall not exceed 0.8A/sqmm,Al,50% neutral as per Specification and SLD					
PCC6 (Power control centre) - 440V, 1000A. Busbar current density shall not exceed 0.8A/sqmm,Al,50% neutral as per Specification and SLD					
FCs,440V,60Hz, 400A as per specifications and SLD					

SI.No.	Page No.	Description	Reference Clause No.	Tenderer Suggestion /Query	TCE/CSL Reply
4	Volume VI Technical Specification of work Page No. 28	Regarding SLD	VOLUME VI-Technical Specifications for Electrical Works Annexure-A, & 4. TECHNICAL SPECIFICATIONS FOR LV SWITCHGEAR, 1.1 COMPLIANCE WITH SINGLE LINE DIAGRAM ,SPECIFICATION AND SCHEDULE OF RATES - DISTRIBUTION TRANSFORMER Each switchgear shall be complete with all fittings and accessories as detailed in Data Sheet-A and the enclosed SLDs TDR-05-ALL-5001, TDR-05-ALL-5002, TDR-05-ALL-5003, TDR- 05-ALL-5004, TDR-05-ALL-5005, TDR-05-ALL-5006. Each switchgear shall be complete with all fittings and accessories as detailed in Data Sheet-A and the enclosed SLDs TDR-05-ALL-5001, TDR-05-ALL-5002, TDR-05-ALL-5003, TDR- 05-ALL-5004, TDR-05-ALL-5005, TDR-05-ALL-5006	Please provide the SLDs numbered: TDR-05-ALL-5001, TDR-05-ALL-5002, TDR-05-ALL-5003, TDR-05-ALL-5004, TDR-05-ALL-5005, TDR-05-ALL-5006 as mentioned in the bid document	The Single line diagrams shall be read in connection with following drawing Numbers. DDR-05-ALL-5001, DDR-05-ALL-5002, DDR-05-ALL-5003, DDR-05-ALL-5004, DDR-05-ALL-5005, DDR-05-ALL-5006 "TDR" shall be read as "DDR"
5	Electrical Works Price Bid Serial No.12 Cabling System	Regarding Cable routing and cable laying works	Electrical Works Price Bid Serial No.12 Cabling System HV & LV Cables of following sizes to be supplied and laid buried in ground, HDPE/RCC Pipes or readymade RCC trenches/ laid on cable trays/cable supports/walls/below floor,etc as per drawings and specification. MS supports of Cable trays inside all cable trenches are covered under civil BOQ. Miscellaneous items such as cable dressing accessories like heavy duty nylon ties, cable tags, cable route marker etc. are included in the scope. Cables shall be supported before end terminations. MS item for supporting would be measured separately. Removal of empty drums, cartons and making the site normal as instructed by Purchaser/ client is included in scope. The erection scope shall also include drilling holes, minor civil work, testing, commissioning etc. Refer specification and drawings and other volumes of tender for details. An approximate length of 60Mtrs of cable trench in existing area are covered with concrete slabs .These slabs are to be removed for cabling work in trenches in the existing area and the same shall be placed back after cable laying.Cables are measurable and only completed portion between end terminations of work would be measured. Cable schedule shall be prepared. Cable joints shall be avoided for HT and LT cables. However, in HT maximum one joint is permitted. As far as possible, cable joints shall be avoided in the case of LT cables. However, in exceptional cases cable joints shall be allowed in the mid zone of the cable atleast at a	Please provide the proposed cable layout indication the existing cable trenches,new cable trenches and road crossings, as rates of laying of cable in trenches and through underground HDPE pipes are different.	Cable schedule and cable route shall be prepared by the contractor based on relevant civil and electrical drawings. There is no separate rate for routing the cables buried in ground, HDPE/RCC Pipes or readymade RCC trenches/ laid on cable trays/cable supports/walls/below floor,etc. Contractor shall consider all the laying requirements and quote accordingly as mentioned in Schedule of rates.
6	Volume VI Technical Specification of work Page No. 28		VOLUME VI-Technical Specifications for Electrical Works 12. TECHNICAL SPECIFICATION FOR EARTHING & LIGHTNING SYSTEM 1.2 The design concept of electrical system by electrical contractor shall be based on safe,reliable, stable and efficient performance of electrical system. The design standards described herein are generally in compliance with Indian standards, IEC, Indian electricity rule and code of practice already established in the country.	Please provide the soil resistivity datat of the installation location/locations	Soil resistivity measured at two locations in the project area was 14, 13 Ohm mtr respectively during tender stage. Soil resistivity in the existing substation area(MES-3) is 52 Ohm Meter. If soil resistivity demanded is for earthing design, please note that the earthing system has already been designed by the Consultant for the project. Detailed earthing routing layout and earthing schedule shall be prepared by the Contractor.
7	415V SLD FOR COMPRESSED AIR SYSTEM-DD-05-ALL-5006				(i) As the busbar rating is 2500A, incomer ACB and CT primary rating shall be 2500A (ii) As per Clause 1.2 of Compressed Air System, Variable speed, Air cooled, Oil Lubricated type packaged rotary screw compressor units (with inbuilt/separate VFD drive) and microprocessor based control panel and of following Rating shall be provided. In case VFD is inbuilt within the compressor, the fourth VFD mentioned as "Future" shall be supplied as spare VFD. Remaining switchgears in the Node 4 of SLD shall be provided in the Compressor Switchgear Panel.

SI.No.	Page No.	Description	Reference Clause No.	Tenderer Suggestion /Query	TCE/CSL Reply
8	Clause No.72.1 of Volume II A - General Conditions of Contract				As per Clause No.72.1 of Volume II A - General Conditions of Contract, The approval procedure of Central Electricity Authority includes documents submission through CSL, arranging inspection, rectifying defects, forwarding compliance report through CSL, obtaining energisation approval including prior intimations & sanctions/approval if any from CEA for the entire new electrical installation. Contractor shall also take care of time-to-time changes in approval procedure till obtaining final approval. In this regard, it may be noted that any stage wise/system wise approval required for energisation of electrical system from Central Electricity Authority shall also be obtained by the Contractor.
9	SCHEDULE OF RATES- ELECTRICAL BOQ SL No. 9.11 and 9.13				Required glands and terminations shall also be considered under these line items
10	Clause 14. LIST OF MAKES VOLUME VI-Technical Specifications for Electrical Works				Hitachi/ABB-Hitachi is also added as make for transformer

**NAME OF THE WORK : EXECUTION OF REMAINING PART OF TURNKEY WORK FOR THE CONSTRUCTION, SUPPLY, ERECTION & COMMISSIONING OF PLANT & MACHINERY FOR
INTERNATIONAL SHIP REPAIR FACILITY (ISRF)
TENDER NO: INFRA/ISRF/234/2022**

CORRIGENDUM NO. 2

Sl.No	Reference No:	Existing Clause	Amended Clause
1	Vol-IV B Marine civil works specifications, Clause No: 2.3.2 - (11), (12), Design Mixes for Structural Concrete		Clause No: 2.3.2 - (11),(12) stands deleted
2	Vol-IV B Marine civil works specifications, Clause No: 2.3.4 - Preliminary Concrete Tests (Mix Design)	Ultra-fines content - As per Section 2.3	Clause stands deleted
3	Vol-IV B Marine civil works specifications, Clause No: 12.3 -(7), Crane rail system	Distance of anchors and clamps: max. 500 mm	Distance of anchors and clamps: max. 600 mm
4	Vol-IV B Marine civil works specifications, Clause No: 3.2(12), Preparation & installation of precast concrete members		Clause No: 3.2(12) stands deleted
5	Vol-II A, GCC Clause No: 2.4, Contract Documents	In the event of any discrepancies between the documents constituting the contract, the documents defining the contract shall take the following order of precedence. <ul style="list-style-type: none"> • Contract Agreement as per pro-forma vide Annexure-8. • Work order • Any agreed variation between the Employer and the Contractor including but not limited to minutes of negotiation, amendments of specifications and/ or specifications • Accepted Schedule of Rates/ prices • Drawings • Special conditions of contract (SCC) • Technical specifications • General Conditions of the Contract (GCC) • Employers Requirements • Instruction to Bidders & Notice inviting tender • All materials, literature, drawings, data, duly filled forms and formats and information of any sort given by the Contractor and approved by Employer as well as the one given by the Employer to the contractor. • Any other documents as may be required. Decisions taken by the Employer for the successful completion of the works shall be final and binding on the parties.	In the event of any discrepancies between the documents constituting the contract, the documents defining the contract shall take the following order of precedence. <ul style="list-style-type: none"> • Contract Agreement as per pro-forma vide Annexure-8. • Work order • Any agreed variation between the Employer and the Contractor including but not limited to minutes of negotiation, amendments of specifications and/ or specifications • Accepted Schedule of Rates/ prices • Drawings • Special conditions of contract (SCC) • Technical specifications • General Conditions of the Contract (GCC) • Employers Requirements • Instruction to Bidders & Notice inviting tender • All materials, literature, drawings, data, duly filled forms and formats and information of any sort given by the Contractor and approved by Employer as well as the one given by the Employer to the contractor. • Any other documents as may be required. Decisions taken by the Employer for the successful completion of the works shall be final and binding on the parties. However, for mechanical and electrical works, the order of priority among 'Drawings, Special conditions of contract (SCC), Technical specifications' mentioned above shall be in the following order of precedence <ul style="list-style-type: none"> • Technical specifications • Drawings • Special conditions of contract (SCC)