



Ref.: COMM/C10/6770

December 26, 2019

CORRIDENDUM NO. 1 TO NOTICE INVITING TENDER

Job Name: Supply, Installation & Commissioning of Amphibious Excavator for cleaning of RW & FW Reservoirs at NRL Site (COMM/C10/6770).

Tender Ref.: OC10000326/SKD dated 17-12-2019 (Tender ID: 2019_NRL_528011_1)

With reference to above NIT, kindly note the following:

SL	Existing Clause - as per Tender document	New Modified Clause of Tender document
1	Detailed Technical Specification is attached separately at (Annexure - 1) along with the tender document. (Page no. 6 of ATC of tender document)	Detailed Technical Specification is attached at Annexure – 1 (Amended) along with this Corrigendum Bidders are requested to upload Annexure – 1 (Amended) along with their technical bids duly seal & sign on each page instead of the earlier Annexure—1.
2	PRE-BID MEETING:	The date of Pre-Bid Meeting has been extended to 06-01-2020 (Monday) at 11.00 AM. Prospective bidders may attend the pre-bid meeting on the above mentioned date & time. However, the venue of pre-bid meeting will remain same as mentioned in the tender / NIT.
3	Bid submission end date: Bid opening date (Technical):	Extended to: 20/01/2020 at 11.00 AM Extended to: 21/01/2020 after 11.00 AM

Bidders are requested to put their quotes considering the above changes.

Annexure – 1 (Amended) is attached herewith this corrigendum.

All other terms and conditions of the Tender Document remain unchanged.

GM (Commercial); I/C
Numaligarh Refinery Limited



Annexure – 1 (Amended)

Pre-Qualification Criteria

1. Bidder should have experience of having supply and commissioning at least one number of Amphibious Hydraulic Excavator with extended boom, having ground reach of 7 meter or higher to Central Govt./State Govt. departments/ Govt. Institutions or Public Sector Units or any other private reputed user in India. For supply to private organization, TDS certificates to be furnished along with purchase orders as authenticity proof of supply.
2. The bidder shall submit end user performance certificates as a proof of performance track record of the supplied equipment as claimed against para-1 above.
3. Tenderers should be Original Equipment Manufacturer/ Authorized Dealer for both super structure and undercarriage. Dealer should submit valid authority letter of OEM along with their technical bid.



Annexure-A

DETAILS OF SIMILAR WORKS DONE EARLIER

Sl. No.	Description of work with WO No. & date	Address of client, Name of EIC, his contact no. and e-mail ID	Original Contract Value	Actual Executed Value	Date of delivery	Scheduled Completion Date	Actual Completion Date

Note:

- Bidder shall furnish details of past experience, of all the jobs he intends to submit, invariably in the above format.
- Bidder shall submit copies of work orders and completion certificates of each job listed in the above format only.
- The completion certificate should be issued by the client and should consist of Name of Work, WO no. & date, awarded value, actual executed value, contractual completion period, actual completion period (with a mention of penalty for delay, if any). In case of non-availability of Completion Certificate issued by client, alternatively, MOM or Handover/Takeover Note, jointly signed by the bidder and the client for satisfactory successful commissioning & handover of the system indicating executed value, date of completion, shall be considered for evaluation of past experience.
- In case of non-submission of complete documentary evidence against each work order listed in the above format or if any supplementary information is required by NRL during technical evaluation of bids, the bidder may be requested by NRL to furnish the required information/ documents.
- No additional work order, post bid submission date, apart from the jobs listed in the above format shall be considered for technical evaluation of the bids.
- Non submission or incomplete documents regarding past experience as mentioned above may lead to rejection of that particular job for considering as his experience.

Name & address of the Bidder:

Signature of Bidder



Annexure-B

UNDERTAKING FOR TECHNICAL ASSISTANCE AND SPARE PARTS

We, hereby, give undertaking to provide spare parts support, operation and maintenance support of the supplied equipment for a minimum period of 10 years after expiry of warranty period. For this NRL has to line up separate contract/ purchase order with us against submission of offer. However requirement/ placement of separate contract is at the sole discretion of NRL.

The details of three major parts of the equipment to be mentioned as below:

Sl. No.	Component	Make	Model
	Undercarriage		
	Hydraulic Excavator		
	Dredging Pump		

Name & address of the Bidder:
Date:

Signature of Bidder
With seal

Technical Specification of Amphibious Hydraulic Crawler Excavator

Sl.No.	Description	Technical requirement
1	Scope	<u>Supply installation and commissioning :</u> Amphibious Hydraulic Crawler Excavator with extended boom length to reach at ground level minimum 7.5M, digging depth of minimum 5.0M, having bucket capacity of min. 0.6 M ³ , specially designed to maneuver in marshes, swampy areas, soft terrain, as well as to float on water. Hermetically, sealed pontoons coupled with its large foot print which creates an extremely low ground pressure to make machine capable of tracking in dry, soft and swampy areas with no risk of stuck up in the soft terrain/mud. Technical Specification and features of dredging pump is detailed below in this document. The job also involved installation and commissioning of the supplied amphibious hydraulic crawler excavator and imparting hands on training to NRL staff on operation of the same.
2	General Feature of undercarriage and pontoons	Multi synchronous drive motor system, hydraulically operated long foot print crawler, hermetically sealed, extendable and retractable type of pontoon system, suitable for operation in minimum ambient temperature of 40°C, humidity up to 90% at 35°C, altitude up to min. 100M above mean sea level.
3	Overall Performance Requirement of the equipment	Hydraulically operated amphibious excavator has to perform the following application in various area as stated in scope: i. Dredging , ii. De-silting of ponds iii. Surface excavation as normal crawler excavator iv. Maintenance and cleaning of stagnant water in ponds, lakes, nallahs, river, shore lines etc.
4	Engine	Tier III Compliant direct injection, water cooler diesel engine with turbo charger with 90 HP or higher. 02 nos. variable Displacement Pump with minimum 240LPM Capacity.
5	Dredging Pump	The Dredging Pump should come with minimum discharge bore of 100mm, minimum discharge capacity of 300CuM per hour. The Pump should also come with operational cutter head to remove compacted shift at the bottom of the pond. Should be supplied with discharge piping of 100mm dia, 50mtrs length with necessary couplings and floaters so that pipe can float on water. The pump should have suitable arrangement for attachments with Arm Tip of excavator.
6	Super Structure (Upper Carriage)	Engine cowl and cabin with wind shield for wider viewing and wiper, having lubricating system capable to slewing 360° in either direction by hydraulically operated slewing and propulsion.
7	Under Carriage	The Amphibious Hydraulic Crawler Excavator should have provision for dual purpose use i.e. amphibious undercarriage for pond/reservoir operation as well normal ground operation. Amphibious Undercarriage shall be equipped with at least 2 pontoons, 2 spud piles and 2 hydraulic multi synchronize drive motor in front and rear of each pontoon for spud motion, triple strands chain per undercarriage, bidirectional track movement. Ultra high molecular weight track shoe (rubber track shoe), to avoid damage to plant roads with special warranty for the rubber track shoes up to min. 10000 hours or 5 years against cracks. Dual drive hydrostatic motors (2 speed) per pontoon design tier superior tracking power through high viscosity mud and to easily come out of slope of pond. Normal crawler undercarriage, suitable for normal operation on ground to increase the machine utilization, also to be supplied with the equipment.

8	Hydraulic System	Variable displacement axial piston type hydraulic system of adequate flow rate shall be provided for excavator operation, propulsion, and control of stabilizers, multi synchronous drive motor and hydraulic extendable and retractable type of pontoon system.
9	Operating Specification	a) Bucket capacity : 0.60Cum (Minimum) b) Swing angle : 360 degree c) Reach at ground level: 7.5mtr (Minimum) d) Digging Depth : 5.0 mtr (Minimum) e) Gradeability : 30° Continuous climb.
10	Essential Accessories in Operator Cabin	a) Fully enclosed air conditioned dust free steel cabin with window locking service doors and adjustable cushion seat b) Service hour meter c) Complete instrumentation with display d) Starter key switch e) 2 working light and cabin light f) Electric Horn
11	Operational Accessories	A list of the recommended accessories to be furnished by the tenderer for successful operation at least one year or 2000 hrs. The same shall not be considered for evaluation of tender.
12	Manuals	Manual shall be furnished with each machine as under a) Maintenance Manual - 3 sets b) Operational manual - 3 sets c) Spare Parts catalogue - 3 sets d) Electrical Circuit – 3 Sets e) Hydraulic Circuit – 3 sets
13	Maintenance Spares	List of O&M spare parts for 2 years to be furnished with 1 year price validity along with Technical Bid. The cost of these O&M spares shall not be considered during price evaluation of tender.
14	Tools & Tackles	Normal tools & tackles, required for normal O&M of the equipment, shall be supplied along with the equipment without any cost implication to NRL.
15	Commissioning Spares	The quoted price of equipment should inclusive of commissioning spares. Bidder to furnish list of commissioning spares along with the technical bid. Any item not utilized in the course of commissioning activity will be handed over to NRL.
16	Proven Performance	The Excavator shall be of latest model in production and that has been in successful operation.
17	Warranty	18 months from the date of commissioning of the equipment OR 4500 hours operating hours whichever is earlier. During warranty period following services/support have to be provided A) Preventive maintenance of the equipment as per manufacturer's standard. The service shall be free of cost. B) During warrantee period supplier must confirm emergency (SOS) visit within 72 hours from intimation over phone/e-mail. The service shall be free of cost. C) Any spare required for maintenance /rectification of the supplied equipment shall be supplied free of cost. D) The vendor shall impart hands on training to the NRL Staff on operation, maintenance, trouble shooting, safety measures etc. at NRL site after commissioning of the equipment. The vendor shall depute minimum one operator having sufficient experience of the operation and maintenance of the installed equipment, for a period of not less than two months at NRL site. The expenses towards travelling (to and fro), lodging and food of the operator/ training expert shall be borne by the bidder and to be included in the quoted price .However local conveyance at NRL site shall be provided by NRL free of cost. NRL may provide Guest House



		accommodation for the operator/ training expert on chargeable basis subject to availability E) After completion of initial two months from date of commissioning, bidder has to provide operational service as and when required (if NRL feels) and for this operational service a separate contract shall be lined up by NRL against submission of offer time to time basis with the supplier during entire warranty period.
18	Post warranty Service	Bidder has to submit under taking (As per Annexure-B) to provide spare parts support, operation and maintenance support of the supplied equipment for a minimum period of 10 years after expiry of warranty period.. For this NRL may line up Operation & Maintenance contract or AMC (Annual Maintenance Contract) and purchase order for spare parts with supplier against submission of offer. However requirement/ placement of separate contract is at the sole discretion of NRL.

Recommended makes of major components:

Sl. No.	Major Equipment	Recommended Makes
1	Under Carriage	EIK/Ultratrex/JCB
2	Super Structure	Volvo/Hitachi/Komatsu/Kobelco/Caterpillar/JCB
3	Dredging Pump	Toyo/Bell/Maxway

Note:

In case of any bidder suggests different/alterative makes, it should have minimum 3 years proven/satisfactory performance track record supplied to govt. dept. / CPSU / SPSU / Private Organization of repute in India. The bidder has to furnish performance certificate from the client as documentary evidence with detail work order, name/address/contact person/contact nos./e-mail ID, etc. along with technical bid of the tender. NRL may verify the authenticity of the documents with the client and reserves the right to accept/reject the make.

Vendor data/specification of items proposed to supply

Description	Unit	Details to be Furnished by Tenderer
Model		
CAPACITY		
Standard Boom length of Hydraulic Excavator	Tonne (Max.)	
Extended Boom length of Hydraulic Excavator	Tonne (Max.)	
Weight of super carriage of Excavator	Kg.	
Weight of undercarriage pontoon	Kg.	
Gross weight of Amphibious Hydraulic Excavator	Kg.	
ENGINE		
Model		
Name of manufacturer		
Engine Type(water cooled diesel engine)	TCDI Diesel engine	
No. of cylinders	Nos.	
Bore x stroke length	mm x mm	
Power Output @speed	HP@RPM	
Torque @speed	KN@RPM	
Piston Displacement	liters	
Compliance of Pollution Norms	Statutory Norms to be indicated	
HYDRAULIC SYSTEM		
Main Pump Type	Fixed/variable	
Maximum Flow	LPM	
Boom Cylinder Nos. (Bore x Stroke)	mm x mm	
Arm Cylinder Nos. (Bore x Stroke)	mm x mm	



Bucket Cylinder Nos. (Bore x Stroke)	mm x mm	
Multi synchronous drive motor (front and rear)	Nos.	
Hydraulic oil tank capacity	ltrs	
Extendable Cylinder for pontoon Nos. (Bore x Stroke)		
BUCKET		
Capacity with extended boom length	CuM/Load	
DRIVE		
Maximum Traction Force	Kg.	
Maximum Travel Speed (water)	Km/hr(Minimum)	
Ground Pressure	Kg/cm ² (Max.)	
Maximum Travel Speed (dry)	Km/hr(Minimum)	
Gradability Continuous climb (dry)		
TANK CAPACITY		
Fuel Tank Capacity	Litres	
Hydraulic oil tank capacity	Litres	
Hydraulic oil cooler capacity	litres	
DIMENSIONS OF BOOM AND STICK		
Boom Length	Metre	
Stick Length	Metre	
Bucket curl at the Tip:	KN (Minimum)	
Stick Crowding Force:	KN (Minimum)	
WORKING RANGE*		
a. Max. Digging Height	Metre	
b. Max. Dumping Height	Metre	
c. Max. Digging Depth from front	Metre	
d. Max. Vertical Wall Digging Depth	Metre	
e. Max. Digging Reach	Metre	
f. Max. Digging reach at ground level	Metre	
g. Min. Swing Radius	Metre	
DIMENSIONS FOR UNDERCARRIAGE		
Track/Overall Length	Metre	
Length of track on Ground (Transport)	Metre	
Rear Upper Structure Length	Metre	
Overall Length (length on ground for transport)	Metre	
Overall Height (to top of boom)	Metre	
Overall height (top of cabin)	Metre	
Ground Clearance, Counterweight	Metre	
Overall width min (inward retractable)	Metre	
Overall width max (outward extendable)	Metre	
Min. Ground Clearance	Metre	
Undercarriage Width (min)	Metre	
Undercarriage Width (max.)	Metre	
Tail swing radius	Metre	
Track gauge	Metre	
Track Shoe Width	Metre	
Track Shoe on each pontoon	Nos.	
Overall width (of counter weight)	Metre	
Distance, swing centre to rear end	Metre	

(SIGNATURE AND SEAL OF TENDERER)



Other terms and conditions :

1. **Delivery period:** 18(Eighteen) weeks from the date of issue of LOI/purchase order.

2. **Pre bid meeting :**

It is highly recommended for intending bidders to participate in the pre-bid meeting for a better understanding of our technical specification and site conditions. If a bidder does not come for the pre-bid meeting it will be solely at his discretion to collect information as required for participating in the tender. NRL may at its discretion may not entertain site related queries latter on.

3. **Payment terms**

100% within 30 days after physical delivery of inspected/accepted machine along with trial running at destination.

4. **Inspection :**

- I. A detailed QAP for inspection shall be submitted by the vendor along with the offer for approval of NRL.
- II. Vendor has to offer the amphibious excavator along with all the component in pre-assembly as well as post assembly condition for stage wise third Party Inspection (TPI) & carry out acceptance test as per Approved QAP & submit the reports to NRL for verification & obtaining Dispatch clearance. NRL may or may not co-witness the stage wise inspection of the same. In case NRL or NRL's representative planned for co-witnessing the stage wise inspection, all the expenses against the NRL official will be borne by NRL only. Stage inspection has to be carried out by TPIA at manufacturers / integrator's work as per agreed schedule and as decided by NRL. Scope of inspection shall be as under:
 - a. Inspection at pre-assembly/manufacturer stage- All major sub-assemblies and system shall be offered for stage inspection before assembly/ manufacturing.
 - b. Pre-Dispatch Inspection at post assembly stage- Amphibious hydraulic Excavator shall be offered for inspection after assembly at supplier's work to third Party Inspection Agency and co-witness by the authorized representative of the NRL before dispatch.
 - c. Final inspection- At the NRL site by Quality Assurance staff of supplier in association with the NRL . At least 20 hours trial run at site as decided by the NRL shall be carried out.
- III. Bidder shall quote the THIRD PARTY INSPECTION (TPI) charges in the price bid for the inspection by one of the third party like
 - a. International Certification Services Pvt. Ltd
 - b. Lloyds Register Indl Service
 - c. Bureau VeritasIndl Services
 - d. Det Norske Veritas
 - e. TUV India Pvt Ltd
 - f. Certification Engineers International Ltd
 - g. RITES Ltd,
 - h. Projects & Development India Ltd.
 - i. SGS India Ltd
 - j. ABS

or any other inspection agency currently being employed by NRL with prior approval of NRL .
Evaluation shall be done including third party inspection charges.



- IV. It is responsibility of the vendor to inform NRL of the exact dates of inspection at least 7 days prior to the date of inspection for co-witnessing the inspection. All the relevant test certificates and internal test reports should be ready during inspection. Such inspection, examination and testing by itself shall not relieve the vendor from any obligation under the Order/Contract.
- V. The equipment shall not be dispatched without obtaining prior Dispatch clearance from NRL.

5. OPERATONAL ASSISTANCE, STAFF TRAINING /TECHNICAL SUPPORT/MAINTENANCE.

- 1) The vendor shall impart hands on training to the NRL Staff on operation, maintenance, trouble shooting, safety measures etc. at NRL site after commissioning of the equipment. The vendor shall depute minimum one operator having sufficient experience of the operation and maintenance of the installed equipment, for a period of not less than two months at NRL site. The expenses towards travelling (to and fro), lodging and food of the operator/ training expert shall be borne by the bidder and to be included in the quoted price .However local conveyance at NRL site shall be provided by NRL free of cost. NRL may provide Guest House accommodation for the operator/ training expert on chargeable basis subject to availability.
- 2) After completion of initial two months from date of commissioning, bidder has to provide operational service as and when required (if NRL feels) and for this operational service a separate contract shall be lined up by NRL against submission of offer time to time basis with the supplier during entire warranty period.
