

Bharat Heavy Electricals Limited, Heavy Electrical Equipment Plant, Haridwar - 249403, Uttarakhand, INDIA.		Enquiry No.			
		Date:			
		Due Date:			
		Supplier's Ref.:			
		Date :			
Specification Cum Compliance of "Sliding Gate Movement System for NDT Laboratory Block-6" under FBM Capacity Augmentation to 13020MW					
Note:-					
1. The offer and all documents enclosed with offer should be in English language only.					
2. The following format must be completely filled and deviations mentioned in the appropriate columns. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications / requirements shall be treated as non-compliance.					
3. Vendor (OEM) must submit complete information against clause no. 14 (Qualifying condition). The offer meeting this clause would only be processed (OEM : Original Equipment Manufacturer).					
4. All the components should be in metric sizes only.					
Name & Address of Supplier:					
Telephone No.:					
Fax No.:					
e-mail:					
Scope: Design, Manufacturing, Supply, Erection & Commissioning & job proving of Sliding Gate and its movement system for New NDT Lab, Block-6 (FBM) complying with the following specifications.					
Annexure to Indent No.: 20098628, Dated: 01.02.10					
MATERIAL CODE NO.: ZFTH29405025					
S. No.	Description - BHEL's Requirement	Specified	Offered	Deviations	Remarks
1.0	Application:				
1.1	The Concrete Sliding Gate will move on a pair of standard rails (R-52) having a length of 25 metres each. These rails will be fitted in the trench meant for gate movement by BHEL, at the inter-distance specified by the party, meeting the party drawing requirements. Sliding Gate shall be used to shield against X-Ray, Gammagraphy radiation when closed.	Vendor to note			
1.2	The Sliding Gate shall be put to use for 365 Days continuous duty.	Vendor to note			
2.0	Scope of Supply:				
2.1	Design, Manufacturing, Supply, Erection, Commissioning & Job Proving of Electrically Operated "Sliding Gate Movement System (except for Torr steel reinforcement & cement concreting) for NDT Laboratory Block-6". The schematic drawing of the proposed sliding gate and layout drawing of the proposed laboratory is attached for reference.	Vendor to Comply			

2.2	The Sliding Gate system consisting of Gate bottom plate with minimum 4 wheels, Wheel holding assembly, Steel Shell (Top side having rollers, Three sides covered and one side i.e. front open to facilitate reinforcing by Torr Steel and concreting by BHEL cast in situ), two steel drum assemblies at both the ends for to and fro gate movement, wire rope of adequate length and strength, wire rope attachments with gate, gate top guide, gear box, stoppers at the traverse end, trench covers etc.) and suitable electrical system (i.e. electric motor, electric motor control switch, limit switches etc.).	Vendor to Comply			
3.0	Quantity Required: Sliding Gate: 1 No.	Vendor to note			
4.0	Location: New NDT Lab at Block-VI, FBM	Vendor to note			
5.0	Technical Specifications:				
5.1	Size of Casted Concrete Gate to be Mechanized: 7500 mm (width) X 5000 mm (height) X 750 mm (thickness)	Vendor to note			
5.2	Weight of Casted Concrete Gate: 70 tons (approx.)	Vendor to note			
5.3	Movement of Gate: On a pair of standard R-52 rails, length 25 meters (approx.) each The sliding gate movement shall be motorized. The operating speed shall be maximum 4 meter / min.	Vendor to Comply			
5.4	Length of Gate Traverse: a) 7 meters (approx.) in normal working b) 15.25 meters (approx.) in the case of gate maintenance /	Vendor to Comply			
5.5	Wheels for Gate Movement: Minimum four wheels of 300 mm diameter each (approx.) with heavy duty bearings will be fitted below the gate for the same. Wheel shall be matched with the above rail. Wheels shall be forged and made of C55 Mn75 Carbon steel, Hardened to BHN 300-350.	Vendor to Comply			
5.6	Gate Top Guide: Length 15 meters to guide the movement of the top end of the gate to be mounted on the wall of exposure hall. The Gate top rollers will roll in the gate top guide in both the direction during operation. A steel plate of adequate length and width will be fixed by BHEL on the concrete wall on which the gate top guide can be welded / fitted.	Vendor to Comply			
5.7	Gate Top Rollers: Adequate numbers and of suitable size rollers will be welded / fitted on the top of the gate. These rollers will move in the gate top guide to keep the gate in alignment during motion.	Vendor to Comply			
5.8	Gate Movement System: Pulley rope system or any other suitable system for movement of gate on the rails.	Vendor to Comply			
5.9	Steel drum assemblies: Steel drum assemblies at the both end with wire rope will be provided by the party to move the gate. A wire rope of adequate length and strength will be supplied by the party.	Vendor to Comply			

5.10	Wire rope holding attachments: Wire rope holding attachments will be provided on both sides of the gate by the party. They will be preferably spring loaded to keep the rope tight on steel drums and prevent rope slipping. Wire rope holding attachments may be welded / assembled by the party on a supporting side plate of steel.	Vendor to Comply			
5.11	Gate lifting hooks: Gate lifting hooks in adequate nos. & of adequate strength (to lift the gate during maintenance) will be provided by the supplier on the top of the gate.	Vendor to Comply			
5.12	Trench covers: Steel sheet covers with lifting hook / handle will be provided for the trench length that will be used only in the case of overhaul / maintenance (i.e. about 10 meters)	Vendor to Comply			
5.13	Gear Boxes: Shall be used of preferred / reputed make. To be approved by BHEL before undertaking manufacture. Very low noise operation system should be provided.	Vendor to Specify the make & details Vendor to Comply			
5.14	Type of Coupling:	Vendor to specify			
5.15	Lubrication: Suitable lubrication system shall be provided for gear boxes and all rotating parts wherever applicable.	Vendor to Comply			
5.16	Guards: All the moving / rotating parts like couplings, wheels etc. shall be duly covered with proper guard / cover as per safety norm, wherever required.	Vendor to provide			
6.0	Electrical Elements:				
6.1	Operation / Control: The operation shall be from a fixed operating station by manual Push Button control for opening & closing for sliding gate, to be provided by the vendor. BHEL shall provide electrical supply upto starter. Starter shall be provided by the supplier and fixed on the exposure hall outer wall.	Vendor to Comply			
6.2	Motor Details: Preferred make & details (i.e. Kw etc) to be submitted. An electric motor of adequate rating, matching gear box and electric motor control circuitry for the to and fro movement of the gate will be provided by the party.	Vendor to submit details			
6.3	Limit switches: Limit switches to stop the motion at the traverse ends (in normal working i.e. 7 meters) will also be provided	Vendor to Comply			
6.4	Control Voltage / Input Power Supply: Shall be 415 \pm 10% Volts, 50 \pm 3% Hz, 3 Phase AC	Vendor to note			
7.0	Painting: One coat of Red Primer with and Two coats of Enamel Paint shall be done wherever required. Final coat has to be done at site after erection of the gate.	Vendor to Comply			
8.0	Spares: (Unit Price should be offered in the price bid). (1) Bearing (1 set each type) (2) Guide Rollers (1 set)	Vendor to Comply			

	(3) Motor with Gearbox (1 nos.)				
9.0	Preferred / Acceptable BOI Make:				
9.1	Electric Motors: GE / Bharat Bijlee / Siemens / KEC / ABB / Crompton	Vendor to Confirm			
9.2	Limit Switches: Siemens / BCH / L&T / GE	Vendor to Confirm			
9.3	Contactors: Siemens / L&T / GE	Vendor to Confirm			
9.4	MCB / MCCB: Siemens / L & T / GE / ABB	Vendor to Confirm			
9.5	Push - Buttons: Siemens / L & T / GE	Vendor to Confirm			
9.6	Couplings: WMI / Fenner / ALFEX	Vendor to Confirm			
9.7	Bearings: SKF / FAG only	Vendor to Confirm			
9.8	Cables: Reputed / Preferred make confirming to relevant IS	Vendor to Confirm			
10.0	Inspection: Inspections shall be done by BHEL prior to dispatch from the Supplier's Works.	Vendor to Comply			
11.0	Erection & Commissioning of Sliding Gate: Erection & commissioning shall be done by the supplier. Smooth & satisfactory functioning of the Sliding gate (at BHEL Works) shall be the responsibility of the supplier. Necessary tools & equipments required for erection shall be brought by the supplier.	Vendor to Comply			
12.0	O & M Manuals: 3 Copies of Erection, Operation & Maintenance Manual with 2 set of CDs, containing all the technical details & drawings with spares & bought out items shall be submitted. All copies shall be hard-bound in high quality leather folders, encased in decent individual boxes.	Vendor to Comply			
13.0	Performance Guarantee: The Performance of the Sliding Gate for proper functioning shall be guaranteed for a minimum period of 24 months from the date of commissioning of the Sliding gate at BHEL Works.	Vendor to Comply			
14.0	Qualifying Conditions:				
14.1	Only those vendors (OEMs), who have supplied and commissioned at least one Sliding Gate or Trolley min. cap. 10T or EOT Crane min. cap. 5T or more in the past ten years (on the date of opening of Tender) and referred Sliding Gate, Transfer Trolley or EOT Crane is presently working satisfactorily for more than one year (on the date of opening of Tender) after commissioning, should quote. The following information should be submitted by the vendor about the companies where referred Item (s) have been supplied. This is required from all the vendors for qualification of their offer.	Vendor to accept and confirm			
14.2	Name of the customer / company where Sliding Gate / Trolley or EOT Crane (as detailed above) is installed.	Vendor to inform			
14.3	Complete postal address of the customer.	Vendor to inform			
14.4	Month & Year of commissioning.	Vendor to inform			
14.5	Parameters of sliding Gate / Trolley or EOT Crane (s) supplied.	Vendor to inform			
14.6	Name and designation of the contact person of the customer.	Vendor to inform			
14.7	Phone, FAX no. and e-mail address of the contact person of the customer.	Vendor to inform			

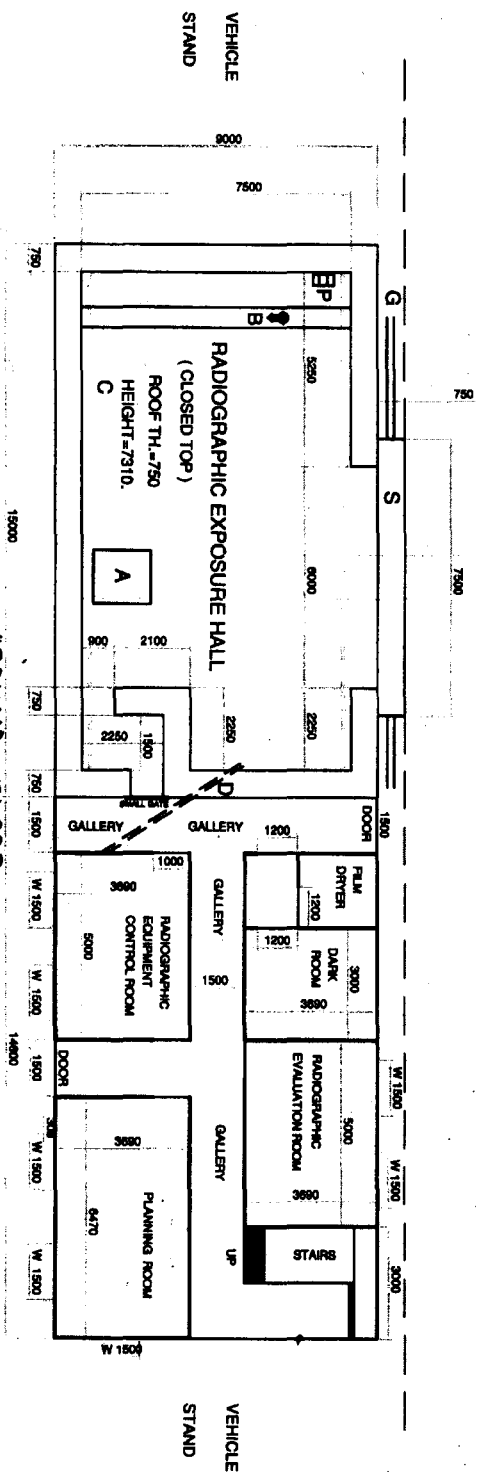
14.8	Performance certificate from the customers regarding satisfactory performance of Sliding Gate / Trolley or EOT Crane supplied to them (Original Certificate or Through E-mail directly from the customer). The original performance certificate may be returned after verification by BHEL, if required.	Vendor to submit			
14.9	BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.	Vendor to accept & confirm			
15.0	Special Instructions:				
15.1	The sliding gate material should be standard steel of suitable thickness with corresponding supporting structural members, so as to give an aesthetic appearance.	Vendor to Comply			
15.2	Rail erection / fixing for Sliding gate is in BHEL's scope.	Vendor to Comply			
15.3	Sliding Gate reinforcement by Torr Steel and concreting is in BHEL scope. The same shall be done in situ after installation of Sliding Gate structure on the rails by the supplier.	Vendor to Comply			
15.4	Any other information required shall be provided during discussions / site visit by vendor.	Vendor to Comply			
15.5	DUPLICATE COPY OF TECHNICAL OFFER MUST BE SUBMITTED	Vendor to Confirm			
15.6	The successful Vendor is required to measure all necessary dimensions and visualize the other conditions at site before starting of the Sliding gate design / manufacturing.	Vendor to Confirm			

HEEP . B.H.E.L HARDWAR

NIEM X



BLOCK VI FABRICATION BAY.



ROAD.

GROUND FLOOR

A- 30 MT TRANSFER TROLLEY.	S- SLIDING GATE.	G- SLIDING GATE TRACK.
T- TRANSFER TROLLY TRACK.	C- EOT CRANE TRACK.	D- CONDUIT.
B- 5 MT EOT CRANE.	P- SOURCE PIT.	E- SMALL GATES.

LAYOUT DRAWING

[illegible]

View X in Layout drawing