

OFFICE OF THE EXECUTIVE ENGINEER ELECTRIC PROJECT DIVISION,PDC,
JAMMU

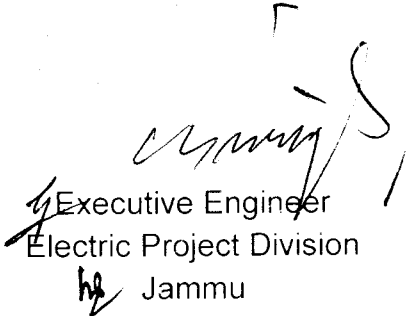
ABSTRACT OF NIT

NIT NO:- 017 2011-12

DATE:- 27.10.2011

Sealed tenders affixed with revenue stamps worth Rs.6/- are hereby invited for "Design, installation, testing & commissioning of penstock intake stop log gates along with hoisting system, lifting beam and allied works at SHP-III, Mashka."The tenders complete in all respects should reach the office of the **CHIEF ENGINEER, GENERATION WING, JAMMU, J&KSPDC, 310 ADARSH COLONY, TRIKUTA NAGAR, JAMMU** on or before *18.11.2011* up to 2:00pm.

The scope of the work and the other terms and conditions can be had from the office of the Executive Engineer,Electric Project Division.Jammuagainst payment of Rs.500/ through a non refundable Demand Draft in favour of General Manager,(Accounts) Office of Managing Director, J&KSPDC, Ashok Nagar, Satwari, Jammuon any working day between *27.10.2011 to 16.11.2011*.


Executive Engineer
Electric Project Division
Jammu

**OFFICE OF THE EXECUTIVE ENGINEER ELECTRIC PROJECT DIVISION,
J&K STATE POWER DEVELOPMENT CORPORATION, JAMMU**

NOTICE INVITING TENDER

No: 1835-37

Dated: 27.10.2011

NIT NO: 01 of 2011-12

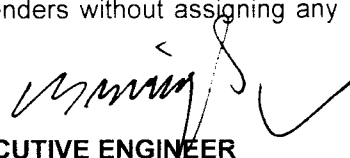
DATED: 27-10-2011

DUE ON: 18-11-2011

Completion Time: 08 weeks from the date mentioned in the Notice to Proceed/ Date of issue of LOI.

1. For and on behalf of Managing Director J&KSPDC, sealed Tenders affixed with Rs.6/- revenue stamps accompanied with earnest money in the shape of CDR/DD of any Nationalized Bank amounting to 2% of the value of offer favouring GM Accounts, J&K State Power Development Corporation, Jammu, are invited from reputed contractor/dealers/ Business Associates/ Channel Partners who have executed similar type of jobs for "Design, installation, testing & commissioning of penstock intake stop log gates along with hoisting system, lifting beam, and allied works at SHP-III, Mashka."
2. The tenders addressed to the **CHIEF ENGINEER, GENERATION WING, JAMMU, J&KSPDC, 310 ADARSH COLONY, TRIKUTA NAGAR, JAMMU** should reach his office up to 1400 Hrs on or before. 18-11-2011.
3. **Bidding Process shall follow ONE DROP THREE COVER SYSTEM.**
 - **First Cover** (Envelope) sealed and super scribed with words "**EARNEST MONEY**" shall contain only the Earnest Money for the work/ works.
 - **Second Cover** (Envelope), sealed and super scribed with words, "**TECHNICAL BID**" shall contain all other documents, as are to be supplied/ furnished by the Bidder to establish the technical qualification/ prove technical credentials of the bidder and other technical/ design details/ schematic layout of structures with drawings, etc. for the equipment to be supplied in response to tender specifications and other commercial terms such as warranties/ guarantees.
 - **Third cover** (Envelope), sealed and super scribed with words, "**PRICE BID**" shall contain only the Price Bid. It shall contain no other document.
 - All the three covers, described herein above shall be placed inside a sealed envelope super scribed with the name of the Work under Bid, NIT Number, due date, complete address and telephone number of the Bidder.
4. The tenders as received by due date and time shall be opened on the same day or any subsequent working day convenient to the tender opening authority in presence of Bidders who may like to be present in the Office of the **CHIEF ENGINEER, GENERATION WING, JAMMU, J&KSPDC, 310 ADARSH COLONY, TRIKUTA NAGAR, JAMMU**

5. In the first instance only the first cover super scribed "**EARNEST MONEY**" shall be opened.
6. Bids received without Earnest Money in the manner and for the amount prescribed herein above shall be summarily rejected.
7. Cover 2 super scribed "**TECHNICAL BID**" submitted by only those Bidders who are found to have submitted the Earnest Money in the manner and for the amount prescribed herein above shall be opened and considered valid for technical evaluation.
8. Cover 3 super scribed "**PRICE BID**" only of those bidders who are found to be technically responsive to the requirements laid in the bid document shall be opened and considered valid for evaluation.
9. Detailed tender documents along with others terms and condition of the contract can be had from the office of the undersigned on any working day up to,(1330 Hours) against payment of Rs.500/ through a non refundable Demand Draft in favour of General Manager,(Accounts) in the Office of Managing Director, J&KSPDC, Ashok Nagar, Satwari, Jammu along with an application for issue of tender documents accompanied with the following documents:
 - i. Authentic proof of being reputed contractor / dealer and
 - ii. Sales Tax Registration Certificate from the Sales Tax Department with TIN for items under the scope of the proposed contract.
10. 1. Last Date for sale of tenders : **16-11-011** (upto 2 p.m)
ii. Last Date for receipt of tenders : **18-11-011** (upto 2 p.m)
11. The Department reserves the right to accept or reject any/all tenders without assigning any reason whatsoever.


EXECUTIVE ENGINEER
ELECTRIC PROJECT DIVISION
J&KSPDC, JAMMU

Copy to:

1. The Managing Director, J&KSPDC, Jammu for information.
2. The Chief Engineer, Generation wing, Jammu, J&KSPDC, Jammu.
3. Superintending Engineer, Gen. Circle-III PDC Jammu.
4. Director Finance JKSPDC, Srinagar for Inf.
5. The Chief Pay and Accounts Officer Jammu, for information.
6. The Company Secretary, JKSPDC, Jammu for information and up loading of the tender on Official web site of JKSPDC.
7. Executive Engineer MID PDC, Jammu for information.
8. Notice Board.

TECHNICAL SPECIFICATIONS FOR "DESIGN, INSTALLATION, TESTING & COMMISSIONING OF PENSTOCK INTAKE STOP LOG GATES ALONG WITH HOISTING SYSTEM, LIFTING BEAM, AND ALLIED WORKS AT SHP-III, MASHKA."

1.0. GENERAL

1.1. Scope of work:-

These specification cover the requirements of design manufacture/fabrication assembly, supply at project site, storage at site, erection shop and field painting testing and successful commissioning of the equipments mentioned below:-

- 1.1.1 1572 mm x 8700mm size fore bay stop log gate (in units for three bays) complete with all accessories such as guide shoes etc complete.
- 1.1.2 One set of lifting beam for under water lowering/raising of stop log unit complete in all respects/one set for each bay.
- 1.1.3 One set of electrically operated monorail hoist of suitable capacity (Min. 3 tonne) for operation of S.L. gate complete in all respects.
- 1.1.4 One sets supporting trestles and monorail supporting hoist of adequate height/length including fixtures to cover all the three bays complete.
- 1.1.5 Hoist beam including chain pulley blocks for Trash rack units of size 2700mm x 2525mm for each bay complete in all respects.

Note :- Scope of the items given below above may not be needed for efficient working of the gates hence needed to be delegated from the prices quoted. Prices of such item along with detail justification should be given separately.

Any item not included but required for sufficient working of the gate may also be included in rates.

- 1.1.6 Dry as well as wet tests are to be carried out by the supplier. Any defects noticed during test or during the guarantee period (not less than 12 months) is to be removed/supplied free of the cost. These requirements are also included in the scope of supply.
- 1.1.7 Shop as well field painting are included in the scope of supply.
- 1.1.8 Any other detail/material where specifications are not given in detail/shall conform to Indian standard specification and subjected to approval of the Engineer in charge of his authorized representative.

2. TIME OF COMPLETION


The work has to be completed within 08 weeks from the date of issue of allotment letter.

2.1 Location of Project:-

SewaHydel Project III (J&K) is located / situated in Distt. Kathua of Jammu province of the state of J&K and is approximately 185 Kms from the Jammu city. Altitude is approx 600m above M.S.L. and site is at Mashka.

2.2 Climatic Conditions:-

The maximum and minimum recorded air temperature are +35 Degree Celsius and 1 Degree Celsius respectively. Maximum relative humidity has been recorded as 98%. Average annual rainfall is 250 cm.



2.3 Warranty:-

The contractor shall furnish warranty of the equipments for a minimum period of one year from the date of commissioning/wet test (whichever is later). The contractor shall guarantee among other things the following items:-

1. Quality of strength of materials used.
2. Satisfactory operation of equipments.
3. Safe stresses in all parts under all conditions of operations.
4. Protection of equipments against vibration and corrosion.

The contractor shall correct at his expense the defects if any during the warranty period. The contractor shall assume full responsibility for direct damages caused by any manufacturing defect resulting in the failure of the equipments being supplied under the specification.

2.4 Security Deposit/Performance Guarantee

Earnest money deposit shall be released in favour of successful tenderer after furnishing of required amount of security deposit. The tenderer shall be required to furnish a security deposit/performance guarantee equivalent to 10% of the value of the order in the shape of Bank Guarantee pledged to the Chief Pay & Accounts Officer Jammu for successful execution of job. The security deposit shall be furnished by the tenderer within one month from the date of issuance of order for the job and after commissioning, the same shall be considered as performance guarantee for 12 months from date of successful commissioning.

2.5 Demurrage, Wharfage

All demurrage , Wharfage & other expenses incurred due to delayed clearance of the material or any form shall be on a/c of contractor

TECHNICAL SPECIFICATIONS

3.0 DESIGN CRITERIA

General Arrangements:-

- 3.1 Normally the penstock intake stoplog gates shall be kept on the platform at road level and shall be lowered into the slots of the opening proposed to be closed. The lowering raising of the stop log would always be under balanced head conditions i.e. under no flow conditions. One unit of stop logs shall be provided with a fill value of not less than 150mm diameter to fill the space between the gate and stop logs to create balanced conditions before raising the stop logs. Lowering and raising of the stop log shall be accomplished with the help of monorail hoist of suitable capacity installed on the supporting trestle & hoist of bridge. Designed head shall be 6.9mtrs.
- 3.2 All side seals & top seals shall be hollow music note type (rubber) and all bottom seals be wedge type (rubber)
- 3.3 All bearing stress shall be as per 456 in concrete.
- 3.4 Various components of gates shall be designed for hydro static head corresponding to designed head of 8 mts or 6.9 mts as the case may be plus 0.6 mts for wave effect and in accordance with provision of IS 3020/4622. The design shall be checked for combination of hydrostatic and earth quake effect in accordance with IS 1893. Allowable stress in this case shall be increased by 33.3% subject an upper limit of 85% of Y.P. The



dogging/latching device shall be designed for weight of gates and impact load as applicable.

4.0. HOISTS

4.1 Description:-

Electrically operated monorail hoist is required which shall raise/lower gates. The hoist shall transverse all the three bays of gates. Lowering/raising and transverse speed shall be as specified in 4.2.1.

Hoist will consists of two electric motors (one for hoisting) and the other for traversing mechanism) two independent electromagnetic/thruster brakes, gear reduction units for both the motors. (working independently) rope-drum, ropes, pendent switch, limit switches main hoisting controls, PVC insulated cable for power supply and its mounting structure other accessories etc electric interlocking shall also be provided to ensure that either hoisting/lower operation or traverse motion is operative at a time.

Any item which is essential for the efficient performance of the equipment but not specifically mentioned in these specifications shall be considered included in the scope of supply of contractor.

The equipment shall be simple in design and rugged in construction so as to give long trouble free operation with minimum of maintenance. It shall be suitable for outdoor service. Hoist shall be product of reputed manufacture of such equipment.

4.2 Design Data:-

Height of lift	9 m
Lifting/Lower speed range	2 to 3 m/min
4.2.1 Transverse speed	3 to 7 m/min.

5.0. ELECTRIC MOTORS

The power supply available at the stop log structure shall be 415 volts 3 phase 50 cycles A.C. The electric motors furnished shall be suitable for outdoor operation. The motors shall be squirrel cage, reversing type with starting torque characteristics and shall confirm to the Indian Standards specifications IS:325.

The electric motors shall be suitable for starting with the starting current kept as low as possible with good design. The motor shall be suitable for frequent acceleration.

The winding insulation shall be of class 'p'. The maximum temperature rise in the winding when the electric motor is delivering rated output continuously at rated voltage and frequency, shall not exceed 40 deg. C (104 Deg. F) above ambient temperature of 45 Deg. C. The temperature rise of other parts of the motor shall be in accordance with the relevant Indian Standards.

To prevent condensation, motors shall be equipped with single phase anti-condensation heater mounted in or on the frame.

5.1 CABLES

The cable shall be P.V.C insulated P.V.C. sheathed confirming to IS: 694 for voltage up to 1000V. Consideration shall also be given to such factor as the ambient temperature, grouping and disposition of cables and to the limitation of voltage drop while selecting the cables. The length of the cables shall be such that the hoist can move freely on the bays. The sources of supply for hoists will be located at a midway position on 2 bays. Suitable arrangements to accommodate the length of cable while the hoist transverses in either direction shall be provided.

5.2 POWER SUPPLY SYSTEM

The contractors shall provide the necessary power supply cables to the hoist. These shall include cables of sufficient length along with other mountings and accessories so as to allow the free travel of the hoist over the entire working length of the hoist. The entire system shall be



robust, trouble free and reliable. The three phase supply shall be available at 415 volts, 50 c/s. the power can be fed to the system at a midway position or on either end of the structure.

5.3 Name Plates

Suitable name plates shall be provided on the pendent switch and other locations, where necessary. All name plates shall be in English with figures in metric units.

6.0 MATERIALS

All materials used in the manufacture of the equipment shall be best available for the purpose for which used, considering strength, ductility and best engineering practices and shall conform to the latest applicable standards of Bureau of Indian Standards (formerly Indian standards institution) or their approved equivalent standards to the satisfaction of the purchaser.


If the contractors desires for any reason to deviate from or to use materials not covered by the above specifications, he shall state the exact nature of the deviation and shall submit for the approval of the department complete alternative specifications for the materials that he proposes to use. The department shall require contractors to furnish the certificates for tests of the material to ensure their compliance with these specifications.

All electrical apparatus accessories and wiring shall be suitable for installation and operation in tropical climate with high humidity.

All materials supplied and articles not manufactured/furnished wholly by the contractor shall be procedure of recognized reputable manufacturer and shall meet all the requirements of these specifications.

As a general guidance to the contractor materials used for various item of gates and hoists are given in the following table:

S. no.	Component/Part	Recommended	Reference
1.	All Structural members of the gates guide shoes, lifting beams etc. and track bases, seal seat bases, anchorage etc.	Structural steel	IS: 2062/IS: 226
2.	a) Seal scats b) Tracks	Stainless steel 04 Cr 19 NI9 SS – 30 Cr 13	IS: 1570 IS: 1570
3.	Screws/bolts for seals, pins for lifting pulley	18/1 type stainless steel	IS: 1570
4.	Seals (a) Side Seals (b) Bottom Seal	Hollow Bulb Music Note Type Rubber Wedge Type Rubber	IS: 11855 IS:11855
5.	Thrust pad cladding	Forged steel Bronze	IS: 305
6.	Sheaves, gears & pinions	Forged steel or cast steel	IS: 2004/IS:1875 IS:1030
7.	Wire rope for hoist	Improved plough steel (Non-galvanized)	IS:2266
8.	Shafts	MS or forged steel	IS:2062 IS:1875
9.	Rope drum	MS or cast steel	IS: 2062 IS: 1030

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In all the references cited above, the latest revised edition of Indian standards equivalent shall be followed.

7.0 MANUFACTURE

7.1 Workmanship

All work shall be performed and completed in a thorough workman like manner as per the best modern practice in the manufacture and fabrication of materials of the types covered by these specifications. The work shall in all cases of high grade and carefully performed to the satisfaction of the department. The contractor shall warrant all materials and workmanship furnished by him to be free from injurious and defective materials or workmanship and shall bear all cost of the repairs or replacement in case of any error for which he is responsible. Workmanship shall conform to the relevant standards laid down by the Bureau of Indian standards. All sharp corners, which can damage the matching parts, shall be rounded and shall be chamfered.

7.2 Tolerances

Where tolerances of fits are not specified on the drawings, the tenderer shall follow the best modern shop practice for apparatus of the type covered by these specifications, special nature of function of the parts and to corresponding accuracy required to secure proper operation.

7.3 Machine Finish

Where finished surfaces are not specified on the drawings, the type of finish, shall be that most suitable for the part of which it applies and shall be as per IS:3073 (latest edition).

A smooth finish (two delta i.e. 1.5 to 6.3 microns) will be required for all surfaces in sliding or rolling contact and for surfaces in permanent contact, where a tight joint is required. A finish (single delta 6.3 microns) shall be given to all other machined surfaces where selective assembly for matching parts is specified on the drawings or otherwise required, the parts shall be ground, if necessary, to obtain the limitation tolerances.

7.4 Fabrication of Structural Steel

The Contractor shall perform fabrication and manufacture in the best possible workman like manner to meet the requirements of design, drawings and specifications. However, some specific guidelines are given herein.

7.4.1 Straightening

Before being laid of or worked in any manner structured steel shall be straight without twists, bends or kinks and its straightening is necessary, it shall be done by a method which shall not be detrimental to good welding and fittings of members. All steel shall be cleaned of dirt, mill scale and rust prior to fabrication.

7.4.2 Shearing, Chipping and Gas Cutting

Shearing, chipping and gas cutting shall be performed carefully and all portions of the work which will be exposed to view shall present a neat appearance. Finishing of sheared or cut edges of plate or shapes will not be required except as noted in these specifications/ drawings.

7.4.3 Edges to Be Welded

The edges of plates & shapes to be joined by welding shall be properly formed to suit the type of welding selected. Where plates & shapes have been sheared, edges to be joined by welding shall be machined or chipped to sound metal. Plates and shapes to be field welded shall have their edges prepared in the shop for the type of weld selected.

7.4.4 Bent Plates and Shapes

Where bending or forming of plates or shapes is required, the plates or shapes shall be bent by cold forming. Heating and hammering to correct bends will not be permitted.

7.4.5 Welding

a) Welding Technique

Care shall be taken in designs that the welds when being made are well accessible. Overhead welding is to be avoided, if possible and flat position welding is to be strived for. Drawings should clearly indicate the joint position, shops or field welding, kind of welding, method of welding, welding sizes and other required information/data. Symbols to be shown on the drawing would conform to relevant Indian standards. All welding shall be done by the electric arc method by a process which will exclude the atmosphere from the molten metal, except where otherwise specifically permitted. All welding electrodes required shall be furnished by the contractor. Correct selection of electrodes shall be done taking due care of welding method and base metals of components to be welded. The welding electrodes of metal shall be heavily coated type designed for all position welding. The make type and size of all welding electrodes shall be subjected to the approval of the Corporation. In assembling and during welding the components parts of built up members shall be held in place by sufficient clamps or other adequate means to keep all parts in proper alignment and position. The surfaces to be welded shall be thoroughly cleaned of scale, slag, rust, paint and other foreign matter. Where weld metal is deposited in two or more layers each layer shall be brushed with a wire brush or otherwise cleaned before the subsequent layer is deposited. In welding precautions shall be taken to minimize buildup of heat by using the proper sequence in welding. Upon completion the weld shall be brushed with wire brushes and shall show uniform section and smoothness of weld metal. Edges shall indicate good fusion and penetration into base metals. Specific requirements for butt joints and fillet joints are given below.

Radiographic tests shall be carried out for all critical full strength butt welds.

i. In principle, butt joints shall be made with back-run. Backing strap should be placed and welding should be so made that the molten metal fully penetrates and a full penetration is achieved. Dye-penetration test shall be carried out after each pass of the weld. Radiographic testing of butt welds shall be carried out to the extent required by the purchaser.

ii. All fillet welds shall be continuous. For the main member, no fillet welding should be made on members whose thickness differs substantially. Filled weld at T Joint should be made, as a rule, on each side of the joint unless it is other-wise agreed due to some practical reasons. Radiographic test is not normally required for fillet welds. All the filled welds shall be checked by dye penetration test by the contractor in the shop. However 20% to 30% of fillet welds shall be checked by dye-penetration test in presence of purchaser to check soundness of weld.

b) Welding Process

A specification of the welding process, that is proposed to be used, shall be established and recorded and it required a copy of such specification together with a certified copy of report to results of tests made in accordance with the process and specifications shall be furnished.

The qualification of the welding process shall be at least equal to that required by standard qualification procedure of the Indian standards and the minimum requirement of the tests shall be at least as stated in the said, 'standard qualification procedure'.

c) Qualification Of Welders

The contractor shall be responsible for the quality of the work performed by his welding staff. All welders assigned the work shall have passed qualification tests for welders. If at any time the work of any welder appears question able, welder shall be required to pass

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additional qualification tests to determine his ability to perform the type of work on which he is engaged.

7.4.6 Riveting

Riveting shall be driven by power riveters, employing pneumatic, hydroallic or electric power. After driving, their finished heads shall be of approximately hemispherical shape of uniform size throughout the work for the same size of the rivets, neatly finished and concentric with the holes. Rivets shall be finished and heated uniformly to a temperature not exceeding 1065 Deg. C. They shall not be driven after their temperature has fallen below 528 Deg. C. All shop driven after the welding is completed. Recouping and caulking of loose or defective rivets will not be permitted. While removing defective rivets, care shall be taken not to injure the adjacent metal and if necessary, they shall be drilled out.

7.5 TURNED & FITTED BOLTS

In cases where bolts have to be used but strength of a riveted connection is required, this can be obtained by using special bolts in special holes to a driving fit. The bolts are specially made from black round bars and turned down to the exact diameter. The inside of the head and flat face of the nut should be clearance of not more than 0.25 mm. The holes after assembly of parts must be true throughout the thickness of all parts and perpendicular to axis of the member. Washers for turned and fitted bolts should be machined on both faces.

7.6 DRILLING & REAMING

Holes shall be accurately located and drilled or reamed perpendicular to the face of the member and if necessary shall be done carefully and to the full depth of head. Open holes in materials 18 mm or less in thickness, shall be sub-drilled or sub-punched before assembly and reamed during assembly. Holes in structural steel more than 18 mm in thickness shall be drilled 3 mm smaller than the normal diameter of the rivet or bolt, before assembly and reamed to the full size during assembly. All members shall be shop assembled before reaming or drilling holes for field connections.

7.7 PUNCHING

For sub-punching, the diameter of the punch shall be 4.5 mm smaller than the nominal diameter of the rivet or bolt and holes shall be clean cut without torn or rapped edges.

8.0 CLEANING & PAINTING

8.1 GENERAL

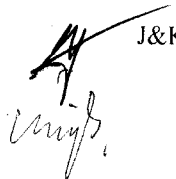
All finished and unfinished surfaces of metal work (other than of aluminum, brass, bronze or stainless steel) except screw threads, mating surfaces, sliding surfaces, rolling surfaces shall be cleaned and protective coatings applied as specified here in after.

All paints, painting materials and accessories for painting shall be supplied by the contractor and shall be included in the price bid. The paints proposed by the contractor must be got approved by the purchaser before application of the same. The analysis in respect of paint properties, paint composition and performance requirements of the paints shall be submitted by the contractor for check and approval. All painting materials shall conform to relevant Indian Standards.

8.2 PREPARATION OF SURFACE

After the equipment has been fabricated and prior to painting, all surfaces shall be cleaned/prepared in accordance with the following procedures:

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- a. Weld spatters or any other surfaces irregularities shall be removed by any suitable means before cleaning.
- b. All oil, grease and drift shall be irregularities shall be removed by any suitable means before cleaning.
- c. Following the solvent cleaning, the surfaces to be painted shall be cleaned of all rust, mill scale and other lightly adhering objectionable substances by sand blasting or grit blasting to uniform bright base metal. Any grit or dust remaining after the cleaning operation shall be completely removed from the surface by wire brushing, air blowing, suction or other effective means before the surfaces is painted.
- d. Surfaces of stainless steel, nickel, bronze and machined surface adjacent to metal work being cleaned or painted shall be protected by mashing tape or by other suitable means during the cleaning and painting operations.
- e. Primers shall be applied as soon as the surface preparation is complete and prior to the development of surface rusting. In case there is considerable time gap, the surface shall be to- cleaned prior to priming.

8.3 SHOP PAINTING

- a. Stainless steel and bronze surfaces shall only be cleaned but not painted.
- b. All surfaces of the embedded parts which are to come in contact with concrete shall be cleaned as mentioned above and given two coats of cement latex to prevent rusting during shipment and while awaiting installations.
- c. One coat of zinc rich primer at the coverage rate of 6 sq.m/ltr shall be applied to all unfinished surfaces of the embedded parts and gates which shall remain exposed to atmosphere or submerged in water to obtain a dry film thickness of 75 microns, which shall be followed by two coats of coal tar blend epoxy resin paint at the coverage rate of 4 to 4.5 sq.m/ltr. So as to get a dry film thickness of 100 microns in each coat. Total dry film thickness of paint shall be 275 microns.
- d. All finished surfaces of ferrous metal including bolts, screw threads, etc., that will expose during shipment or while awaiting installation shall be cleaned and given a heavy uniform coating of gasoline soluble rust preventive compound or equivalent.
- e. All exposed surfaces of hoists, supporting structures, hoist bridges, shall be given two coats of red-lead primer at the coverage rate of 19 sq.m/ltr to obtain dry film thickness of 75 microns, which shall be followed by two coats of aluminium paint at the coverage rate of 6 sq.m/ltr to obtain dry film thickness of 150 microns (i.e. 75 microns for each coat). Total thickness of film shall be 225 microns. Hoist machineries may be given machinery finish paint.
- f. All wire ropes shall be given a liberal coat of approved rust preventive compound.
- g. All other surfaces to be painted shall be primed with one coat of an approved synthetic varnish vehicle, rust preventative and lead paint. The surface which will be inaccessible after assembly shall be given an additional coat (total two coats) of the same paint.

8.4 MEASURES DURING PAINTING

- a. Any bare spots or holidays shall be recoated with additional application of primer.
- b. All runs, sags, floods, or dips shall be removed by scrapping and cleaning, the cleaned area shall be retouched or all such defects shall be remedied by reblasting or repriming.
- c. Special attention shall be given to obtaining good coverage on rivets, welds and sharp edges and corners.
- d. Suitable measures shall be taken to protect applied primer from contact with rain, fog, mist, dust or other foreign matter until completely hardened and next coat applied.
- e. The air temperature at the time of application must not be below 10 Deg. C and relative humidity must not be above 60 %.

8.5 APPLICATION PROCEDURE

All paints and coating materials shall be in a through mixed condition at the time of application and shall not be thinned except as herein-after specifically provided. Any warming of the paint shall be performed by means of hot water bath. All surfaces on which paint shall be applied immediately after cleaning, and except otherwise specifically provided shall be applied by either brushing or by spraying. When paint is applied by spraying a mechanical agitator type of paint pot shall be moisture from the air supply lines of spraying equipment. Each coat of paint shall be free from runs, sags, pin holes and holidays.

Each coat of paint shall be allowed to dry or harden thoroughly before the succeeding coat is applied.

All paints shall be applied by skilled workmen in a workman like manner. Paint shall not be applied during damp weather and on surfaces that are not entirely free from moisture. Rust preventive compound shall be applied by any convenient method to ensure complete coverage of heavy coating. After the final application, the paint film shall be allowed to cure at least for 7 days.

8.6 FIELD PAINTING

The painted metal work shall be handled with care so as to preserve the shop coats. The area of the shop paint, which has been damaged during transport shall be cleaned to base metal and repainted. Paint applied to such areas shall be of the same type as used originally in shop painting. All unfinished surfaces of embedded parts and gates that are exposed to atmosphere or submerged in water shall be given a finishing paint of Aluminium-epoxy paint so as to obtain shining surfaces of pleasing colour. This finishing coat should be able to reflect light and limit the heat absorption when exposed to sun.

9.0 CONTRACTOR'S RESPONSIBILITY

9.1 DESIGN

Gate/Hoist & Hoist Bridge

The Contractor shall prepare his own and detailed fabrication and erection/installation drawings on the basis of the information and specifications given and submit the same within 20 days from the date of receipt of notice of award of work to the purchaser for approval. The fabrication/manufacture of the equipment shall be undertaken by the contractor only after approval of his drawings. The contractors shall be fully responsible for such detailed drawings (prepared by him) and correct fittings of the parts and correctness and adequacy of designs.

9.2 DRAWINGS AND DATA TO BE FURNISHED BY THE CONTRACTOR

Within 20 days after date of receipt of notice of award of contract, the contractor shall submit to the purchaser or approval, not less than three sets of assembly drawings and detailed drawings of the various parts along with computations to demonstrate fully the designs and to show that the apparatus to be furnished will conform to the provision and intent of these specifications. The drawings or accompanying data shall show the specifications of the heat-treatment, where used. All drawings submitted will form a part of the contract. The sequence of submission of drawings which will also form a part of the contract shall be such that complete information is available for checking each drawing, when it is received. The purchaser will return a copy of each drawing, when it is received. The purchaser will return a copy of each drawing to the contractor marked either 'APPROVED', 'APPROVED AS NOTED' OR 'RETURNED FOR CORRECTION'. The notation 'approved', 'approved as noted' shall authorize the contractor to proceed with the manufacture of the equipment covered by such drawings subject to the correctness, if any noted thereon. When prints of drawings have been returned for correction, the contractor shall revise the drawings as necessary and shall resubmit fresh prints for approval in the same manner as before.

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Any construction work performed prior to the approval of drawings will be at the contractor's risk. The purchaser shall have the right to ask the contractor to make changes in the design which may be necessary in the opinion of the purchaser to make the equipment conform to the stated provisions and intent of the specifications without any additional cost. Approval by the purchaser of the contractor's drawings shall not relieve the contractors of any part of the contractor's obligation to meet all the requirements of these specifications or the responsibility for the correctness of designs and drawings.

The Contractor shall furnish five complete sets of the prints of the finalized assembly drawings and such detailed drawings of the various parts, as in the opinion of the purchaser may be required for erection, maintenance and repair, identification of parts and for making or ordering replacement parts. The drawings shall show all changes and revisions made up to the time that the equipment is completed and is ready for despatch.

9.3 SCHEDULE AND PROGRESS

Within thirty (30) calendar days after signatures on the contract, the contractor shall submit to the purchaser for approval the schedule of fabrication and manufacture and despatch of the equipment so as to ensure its delivery within specified period. The schedule shall clearly state all the stages of manufacture including procurement of raw materials and bought out items as to enable the purchaser to plan his inspection according as stated in these specifications.

The contractor shall also inform the purchaser of any revision in the manufacturing/construction schedule well in time so as not to evade any part of inspection that the purchaser has planned according to the previous schedule.

The revision of manufacture/constructing schedule shall also have purchaser's approval and shall not affect the delivery time within which the equipment is to be delivered.

The contractor shall also during the course of fabrication submit a monthly progress report along with photographs of fabrication done to the purchaser, apprising him of the progress of fabrication of equipment for the preceding month.

9.4 CATALOGUES AND OPERATING INSTRUCTIONS

Six sets of catalogues indicating the complete lists of parts and operating instructions in the English language, which may be needed or useful in operation, maintenance, repair, dismantling of assembling and for the repair and identification of parts for ordering the replacement shall be supplied by the contractor to the purchaser. Such catalogues shall be in hard cover bound books and should have suitable jackets of thick polythene paper.

9.5 EXTRA WORK

The contractor shall, when ordered in writing by the purchaser perform extra work and furnish extra material not covered by the specifications or included in the equipment directly quoted, but forming an inseparable part of the work, wherever in the judgement of the purchaser, it is impracticable because of the nature of the work or for any other person to fix the price in the order, the extra work or for any other reason to fix the price in the order, the extra work and material shall be paid for at actual substantiated cost as determined by the purchaser, plus 10 % for super intendance, general expense and profit. The actual substantiated cost, will include all expenditure for material allowance or the use of his plant and equipment where required to be agreed upon in writing before the work is begun, but will in no case include any allowance for office expense, general super intendance or other general expenses.

9.6 INSTRUCTION PLATES

All gauges, meters & others instruments etc. shall have dials or scales calibrated in metric system. All name plates, instruction plates, warning signs, etc. shall be in English. All


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markings to be used shall be submitted to the purchaser for approval before the equipment is marked or labeled.

9.7 SHOP ASSEMBLY

All the equipments shall be shop assembled so as to allow for adjustment of various dimensions to make them conform to the designed dimensions, fits, tolerances, surface finishes, clearances etc. In the event it is not possible to completely assemble the gate leaf or such other components in the shop, they will be accurately assembled in the shop using temporary connections and various critical dimensions shall be verified. The hoist shall be given trial run before dispatch.

9.8 PREPARATION FOR DESPATCH

9.8.1 UNIT MARKING, MATCH MARKING & TRANSPORTATION DESIGNATION

Each part of the gate, embedded parts, hoist etc. which is to be transported as a separable piece shall be marked to show the unit of which it is a part and match to show its relative position in the unit to facilitate assembly in the field. Unit marks & match marks shall be made with heavy steel stamps and paint. Each piece sub-assembly or package transported separately shall be labeled or lagged with transport designation consisting of the specification number and the marks number of such pieces, number of parts grouped in such sub-assemblies or contained in the package.

9.8.2 WEIGHTS

Before dispatch the contractor shall determine (by the most accurate means available) the net weight of each piece of assembly that is to be shipped as unit exclusive of boxes, crates or kits. The net weight shall be painted on the respective pieces or assemblies or stated on tags attached thereto.

9.8.3 PACKING

All parts shall be prepared for dispatch so that slings for handling may be attached readily while parts are to be moved. Where it is unsafe to attach slings to the box, parts shall be packed with slings attached to the part and slings shall project through the box or crate so that attachment can be made readily. All parts shall be properly secured and packed to withstand handling during transportation. All packing shall allow for easy removal and checking at sites, special precautions shall be taken to prevent rusting of steel and iron parts during transit, and while awaiting installation.

Suitable methods proposed to be adopted for protection against moisture shall be subject to the prior approval of the purchaser. Each bale or package shall contain packing note quoting number and date of contract or order and name of the office placing the order.

After delivery of material at site, all packing shall become property of the purchaser. Notwithstanding anything stated in this clause the contractor shall be entirely responsible for loss, damage or depreciation to the stores due to faulty and insecure packing, the equipment shall be insured for loss or damage during transit at the cost of the contractor.

10.0 ERECTION

The equipment covered by these specifications shall be furnished and erected by the contractor at the project site. The contractor shall be required to furnish all erection tolerances shall be as per relevant IS code for gates/Hoists.


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The contractor shall prepare complete erection procedure, which describe the sequence of operation to be carried out, the methods to be used, the measurements to be taken out and the tolerance to be met, in the erection and alignment of the equipment. Such procedure shall have the approval of the purchaser prior to the commencement of fabrication and when approved it shall form a part of the specifications furnished by the contractor.

10.1 INSTALLATION OF GATE LEAVES & HOISTS

All the components of the gates and hoists shall be erected perfectly giving due cognizance of the unit and match marks the components. All components designed to fit simply and joint to be water tight shall be assembled to ensure water tightness.

10.2 TOOLS & TACKELS

The contractor shall provide all tools and tackles used in the above erection work.

11.0 INSPECTION, TESTING AND FINAL ACCEPTANCE

11.1 PLACE OF MANUFACTURE & INSPECTION

The tenderer (Contractor) shall state in his tender the place of manufacture, testing & inspection of the various portions of the work included in the contract. Authorized representative of the purchaser may be present at the time of any or all tests and the contractor shall provide all necessary facilities for the same. Representative of the purchaser shall also be entitled to access to contractor's / sub-contractors work at any time during the working hours for the purpose of inspecting the manufacture of equipment and materials.

11.2 INSPECTION

All supplies (which include without limitation raw materials, components, intermediate assemblies and assemblies and end products) shall be subject to inspection and test by the purchaser to the extent practicable at all times and places. Inspection shall be carried out in accordance with IS:7718.

If any inspection or test is made by the purchaser or his representatives in the premises of the contractor or sub-contractor, the contractor without additional charge shall provide all reasonable facilities and assistance and the safety and convenience of inspections in the performance of their duties. If on the request of the purchaser, inspection or test is made at a point other than the premises of the contractor or sub-contractor of the contractor, it shall be at the expense of the purchaser except as otherwise provided in the contract, provided that in case of rejection, the purchaser shall not be liable for such expenses.

11.3 OPERATIONAL TESTS

The contractor shall carry out in the presence of project authorities such tests on the gate equipment to determine that the gate will fulfill the functions for which they have been designed. Tests shall be repeated, if necessary, until successfully carried out to the satisfaction of the purchaser. Leakage tests and operational tests shall be carried out at the convenience of the project authorities after completion of other portions of the work.

11.3.1 DRY TEST

Operational tests in dry shall be carried out as soon as possible after completion of erection and all controls and permanent power supply have been connected, the tests shall include at least two complete traverses from the maximum raised position to the full sealing position. All adjustments, clearances, brakes, etc. shall be checked for proper operation.

11.3.2 WET TEST

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These tests should simulate the actual operating condition as closely as possible. At least two complete traverses will be made from the fully closed position to the fully raised position as follows:

- a. When gate is closed, raise gate to their fully open position in steps and observe the performance including vibration.
- b. Lower the gate to the full closed in steps and observe the performance of the gate including vibration.
- c. Check up proper operation of limit switches.

11.4 LEAKAGE TESTS

Leakage tests shall be carried out with the gates posting on to the sill. Before measuring the leakage the gate shall be raised and lowered several times by about 20 to 40 cms or so in order to dislodge any debris that may have lodged in the side seal seat. The leakage shall then be measured and recorded. The maximum permissible leakage shall be 15 litres per min. per meter length of seal.

11.5 FINAL ACCEPTANCE

Final acceptance of the equipment shall be based on the following :

- a. Quality and workmanship of the equipments including dimensional accuracy.
- b. Satisfactory operation of the equipments after erection as required under these specifications.
- c. Acceptance of various tests of test certificates by the purchaser.

All tests may be witnessed by the contractor or his authorized representative.

On successful completion of all tests, the equipment shall be accepted but all the responsibilities shall remain with the contractor within the guarantee period.

11.6 GUARANTEE

Within one year after operation of the equipment is begun if any part of the gates, embedded parts, hoists etc. are found defective because of workmanship or materials or otherwise, the contractor shall at his own expense furnish and install the parts & materials approved by the purchaser.

11.6.1 FAILURE TO MEET GUARANTEE

Should any part or equipment fail to meet the guarantee or other requirements of the contract within the time covered by guarantee, the purchaser may reject the equipment or may direct the contractor to proceed at once to make alternations or furnish new parts or make alternations to existing new parts and or tests made necessary at the cost of the contractor to meet the guarantee and other requirements of the specifications. If, after due notice, the contractor refuses or persistently neglects to correct any defect, error, omission any other failure to the apparatus to meet the requirements of the specifications, which might develop during the guarantee period, the purchaser may proceed to correct such defects, errors, omissions or failure and deduct from payments or money due to the contractor an amount equal to the actual expenses so incurred.

11.7 DEFECTIVE EQUIPMENT

In case of any part of equipment is found to be defective in materials or workmanship or develops defects or does not otherwise meet the requirements of the specifications including errors or omission on the part of the contractor the following shall apply.

- a. Defect disclosed prior to Final Acceptance

Any defect in materials or workmanship or other failure to meet the requirements of the specifications including errors or omissions on the part of the contractor, which are

disclosed prior to final payment or prior to final acceptance tests, whichever occurs at a later date shall, if so directed by the purchaser, be corrected entirely at the expense of the contractor.

b. Defect disclosed after the Final Acceptance

Any patent defects not discovered before date of final acceptance shall be corrected promptly by the contractor entirely at his expense provided that the total period during which the contractor is liable for repair replacement due to patent defects shall not exceed 12 months after the date of final acceptance of the equipment.

11.8 OPERATION OF UNSATISFACTORY EQUIPMENT

If operation of the equipment after the installation proves to be unsatisfactory to the purchaser, he shall have the right to operate & use the equipment, which unsatisfactory items can be taken out of service for correction of latent defects/errors/omissions provided that the period of such operation or any use pending the correction of latent defects/errors/omissions shall not exceed 12 months without mutual consent of the contractor and the purchaser.

CONDITIONS OF CONTRACT

1. The tender/s for the Work, as purchased from the Executive Engineer, Electric project Division, Jammu, must be submitted adopting **ONE DROP THREE COVER SYSTEM**.
2. Tenders must be affixed with Rs.6/- revenue stamps and accompanied with earnest money in the shape of DD/ CDR/bank guarantee of any Nationalized Bank for an amount equal to 2% of the estimated cost and pledged in favour of Executive Engineer, Electric project Division, J&K State Power Development Corporation, Jammu.

BID SUBMISSION: SUBMISSION DATE

1. The tenders addressed to the **CHIEF ENGINEER, GENERATION WING, JAMMU, J&KSPDC, 310 ADARSH COLONY, TRIKUTA NAGAR, JAMMU** should reach his office through registered post/ speed post/ courier or be delivered against a receipt from the designated official to his office up to **1400 HRS ON OR BEFORE**
2. Telegraphic tender or tenders of such Bidders who have not purchased the tender document shall not be entertained. Any request for any kind of modification, addition or alteration after the due date shall not be entertained
3. Bidder before submitting the tender must ensure the tenders are complete in all respects and are being submitted in the manner prescribed for the Bid. Technical specifications and other conditions should be carefully studied before submitting complete and comprehensive tender. Failure to adhere to BID TERMS & CONDITIONS may lead to the rejection of the tender, even if it is a competitive offer.

BIDDING PROCEEDURE: OPENING OF BIDS

1. Bidding shall follow one drop, three cover system.

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2. **First Cover** (Envelope) sealed and super scribed with words "**EARNEST MONEY**" shall contain only the Earnest Money for the work/ works.
3. **Second Cover** (Envelope), sealed and super scribed with words, "**TECHNICAL BID**" shall contain all other documents, as are to be supplied/ furnished by the Bidder to establish the technical qualification/ prove technical credentials of the bidder and the other technical/ design details/ schematic layout of machines, accessories, panels etc. for the equipment to be supplied in response to tender specifications and other commercial terms such as warranties/ guarantees.
4. **Third cover** (Envelope), sealed and super scribed with words, "**PRICE BID**" shall contain only the Price Bid. It shall contain no other document.
5. **ALL THE THREE COVERS**, described herein above shall be placed inside a **SEALED ENVELOPE** super scribed with the **NAME OF THE WORK UNDER BID, REFERENCE TO NOTICE INVITING TENDERS, LAST DATE TIME FOR SUBMISSION AND THE NAME OF THE BIDDER WITH HIS CONTACT NUMBER.**
6. The tenders as received by due date and time only shall be opened on the same day or any subsequent working day convenient to the tender opening authority in presence of Bidders who may like to be present.
7. In case the due date of receipt of Tender falls on a holiday or the holiday being declared subsequently the Tender will be received on next working day.
8. In the first instance only the first cover super scribed "**EARNEST MONEY**" shall be opened.
9. Bids received without Earnest Money in the manner and for the amount prescribed herein above OR using documents not issued by/ purchased from the Executive Engineer, Electric Project Division, Jammu OR using documents purchased by a bidder by suppressing information / furnishing false information shall be summarily rejected.
10. **Cover 2** super scribed "**TECHNICAL BID**" containing documents related to:
 - i. technical data for the material to be supplied
 - ii. General layout of gates, hoists and
 - iii. The bidder should have an annual turnover of not less than 15 lacs during last year a proof of which need to be submitted by the bidder.
 - iv. Proof of having executed at least one job of similar nature.
 - v. Bid Document, all pages, as purchased from the Executive Engineer, Electric Project Division, sealed and signed by the Bidder in token of acceptance of the terms and conditions specified under the Bid.as required under the detailed terms and conditions of the Bid and submitted by only those Bidders who are found to have submitted the Earnest Money in the manner and for the amount prescribed herein above shall be opened and considered valid for technical evaluation.
11. **Cover 3** super scribed "**PRICE BID**" only of those bidders who are found to be technically responsive to the requirements laid in the bid document shall be opened and considered valid for evaluation.

CONDITIONAL TENDERS

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1. Conditional tenders, even if found to have quoted lowest cost/ price shall be summarily rejected. Conditional tenders such as "subject to market fluctuations shall also attract summary rejection by the Owner.

EARNEST MONEY

1. No Bidder, unless otherwise specified in these specifications, terms and conditions shall be exempted from depositing earnest money.
2. The earnest money of a Bidder shall be forfeited if the Bidder withdraws his tender or seeks to revise the price of their offer within the validity period.
3. The earnest money shall also be forfeited in case the Successful Bidder fails to implement the contract as per the delivery schedule or to deliver the contract placed on them within the validity period of the tender or the Successful Bidder violates any terms and conditions contained herein.
4. The EMD, submitted by the Unsuccessful Bidders shall be released within 14 days with effect from the date of finalization of the tender/ award of contract. EMD furnished by the Successful Bidder shall be released after the furnishing of Contract Performance Guarantee by the Successful Bidder as described herein under.

CONTRACT PERFORMANCE GUARANTEE/ CONTRACT AGREEMENT

1. The Successful Bidder shall be required to enter into formal CONTRACT AGREEMENT with J&KSPDC within seven (07) days from the date of issue Letter of Award/ Letter of Intent for the work.
2. Furnishing of Contract Performance Guarantee (CPG) shall be pre-requisite for the signing of the agreement between the J&KSPDC and the Successful Bidder.
3. The successful tenderer shall execute an agreement with the Department on stamp paper valuing Rs 100/- immediately after allotment of contract order

OTHER CONDITIONS

1. The corporation is/ shall not be bound to accept the lowest or any other tender and reserves to himself the right of accepting the whole or any portion of any tender as it may deem fit without assigning any reason thereof.
2. In their own interest, Bidders are advised to visit the sites where the equipment/s is/ are to be installed before submitting their Bids. However Bidders are deemed to have visited the site and acquainted themselves with the site conditions before submitting the tender.
3. Once the tenders are opened, no tenderer shall change the equipment/specifications offered by him or the prices quoted by him unless specifically asked to do so.
4. The Department shall accept the equipment and the complete system only after satisfactory testing in all respects in accordance with the contract.
5. The rates offered by the Bidders must include all costs including basic cost, CST, toll taxes, transportation to site, storage at site, erection, testing and commissioning .It shall


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include all sales tax, excise duty, Work Contract Tax, Income Tax etc. Income Tax and WorkContract Tax shall be deducted from the payments made to Contractor/s.

6. The contractor shall commence the work on site within 7 days from the date of issue of Letter of Award/ Letter of Intent.
7. The contractor shall hand over the complete work to the Department within 03weeks of the date of order.

ARBITRATION:-

In the event of any dispute or difference relating to the interpretation & application of the provision of this agreement between JKSPDC & the contractor the same shall be settled to the extent possible applicable between JKSPDC & the contractor. In case the parties are unable to settle the dispute each party shall appoint one arbitrator & third arbitrator shall be nominated by the said two arbitrators. The rules governing the proceeding between the arbitrator shall be those of J&K Arbitration & Conciliation Act 1997. The venue of the arbitration proceeding shall be in the state of J&K.

Provided that the arbitral tribunal shall not have any right /jurisdiction to avoid any interest on claim which is determined by it in the arbitration proceedings conducted by the tribunal. Neither party shall be entitled to suspend such work to which dispute relates & payment of any shall be continued to be made in term of the contract during the pendency of the arbitration proceedings.

8. RISK AND RESPONSIBILITY:

i Allocation of Risks and Responsibility

The Risks of loss of or damage to physical property and of death and personal injury, which arise in consequence of the performance of the Contract, shall be allocated between the JKSPDC and the Contractor as follows:

- (a) the JKSPDC : the JKSPDC's Risks as specified in Sub-Clause (ii) below.
- (b) the contractor: the Contractor's Risks specified in Sub-Clause. (iii) below.

ii JKSPDC's Risks

The JKSPDC's Risks are:

- (a) loss or damage due to the use or occupation of the Works or any part thereof by the JKSPDC; except as may be provided for in the Contract;
- (b) loss or damage to the extent that it is due to the design of any part of the Works by the JKSPDC or those for whom the JKSPDC is responsible.


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iii Contractor's Risks:

The Contractor's Risks are all risks other than those identified as the JKSPDC's Risks.

9. : DAMAGE TO PROPERTY AND INJURY TO PERSONS:

(i) Contractor's Liability

Except as provided under Sub-Clause (iii) of this Clause, the Contractor shall be liable for and shall indemnify the JKSPDC against all losses, expenses and claims in respect of any loss of or damage to physical property, death or personal injury occurring before the issue of the last Defects Liability Certificate to the extent caused by;

- (a) defective design, material or workmanship of the Contractor.
- (b) negligence or breach of statutory duty of the Contractor, his sub-contractors or their respective employees and agents.

(ii) JKSPDC's Liability

The JKSPDC shall be liable for and shall indemnify the Contractor against all losses, expenses or claims in respect of loss of or damage to any physical property or of death or personal injury whenever occurring, to the extent caused by any of the JKSPDC's Risks.

(iii) Accidents

The Contractor shall be liable for and shall indemnify the JKSPDC against all losses, expenses or claims arising in connection with the death of or injury to any person employed by the Contractor or his sub-contractors for the purposes of the Works.

DEFECT LIABILITY

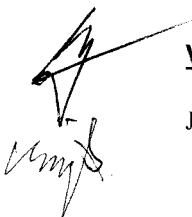
All the works and equipment installed by the Contractor shall be warranted for 365 DAYS from the date of handing over. Any defects developed within warranty/defect liability period will have to be rectified by the contractor free of cost. In case of failure to do so the Corporation shall be at liberty to get the defect rectified by some other agency at the cost of the Contractor.

DELAY DAMAGES

The entire contract shall have to be completed and handed over in 03 days. Liquidated damages at the rate of 0.5 % of the total contract value per week of delay up to a maximum of 2% of the total value of the contract shall be charged in case of delay.

VALIDITY OF BID

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The tender must be kept valid for at least 3 months from the date of opening of the tenders

TERMS OF PAYMENT:

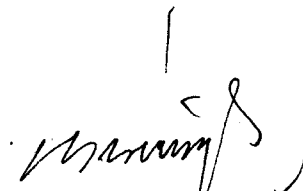
90% payment shall be made after execution of the complete work including installation and handing over to the Corporation and remaining ten percent (10%) after defect liability of one year.

SAFE CUSTODY:

All the equipment, material required at site for the execution of the work shall be in the custody of the contractor. Any theft or loss due to any account shall be the Contractors liability. The liability of safe custody will be transferred to the Corporation only after handing over of the complete system in working condition.

VARIATION IN QUANTITIES

The Quantities shown in BOQs are the estimated quantities. The contractor with whom order will be placed/shall be paid as per the ordered quantities and actual measurements taken after the execution of the complete work as per the approved drawings and measurements authenticated by the Engineer I/C.


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ELECTRIC PROJECT DIVISION
J&KSPDC, JAMMU