Subject: Inviting quotations for the fabrication of 600kV Cavity Assembly as per Annexure I.

Dear Sir,

The quotations are invited on behalf of President of India for the fabrication of 600kV Cavity Assembly as per Annexure I. For any clarifications the supplier can contact Dr. Archana Sharma, Head, PPSS, APPD at Ph. 25590171 or Dr. S.Mitra, at Ph. 25590172 on any working day (Monday to Friday) or on Fax Nos. 25505151 / 25505157 / 25519613 or email: sabyam@barc.gov.in.

2) Payment for the above supply will be made after assembly of modules on production of bill & advanced stamped receipt, within one month. No advance payment will be made for this work since ours is a Government organization. Only 5.4% CST will be paid by BARC & no Octroi will be paid. Income-tax @2% & surcharge on Income-tax @15% will be deducted from the bill and a TDS (tax deducted at source) certificate will be issued as per Income-tax rules.

Information to be supplied along with the offer:
Suppliers should submit their offers along with the following information.
(a) Period of validity, terms & conditions of the offer, (b) Approximate period for completion of the work and (c) copy of the registration and income-tax clearance certificate with PAN.

Additional Information:
(1) Your sealed quotation (in your letter head) including all details, like taxes to be paid, transport charges etc., duly indicating our reference number mentioned above and due date may be sent by speed post to “Head,APPD,BARC
Hall 4,BARC, Trombay, Mumbai-400085”.
   on or before 15th November 2019. The quotations received after the due date & by FAX/email will not be considered.

faithfully,

R.K.Rajawat
(Head APPD)
Annexure–I

ANNEXURE-I
Specification sheets of 600kV Cavity Assembly

The 600kV Cavity Assembly parts should be fabricated as per drawings mentioned above and specifications given below. In case of doubt in understanding, please ask for clarification.

1. General:
   (a) One set of 600kV Cavity Assembly parts to be fabricated as per bill of material attached along with drawings. No materials will be supplied by the inden tor for fabrication. The fabrication and assembly specifications are given in Annexure-I.
   (b) The components are Electrical in nature and stores energy at very high voltages. Hence the fabrication, welding and testing should be in accordance with the procedure laid down by ASME code for boilers and pressure vessels.
   (c) The fabricated parts should have super-finished surfaces as given in the drawings. The stainless steel plates/rods of SS-304L should be used in fabrication and then the surfaces are to be polished .
   (d) The fabricators must submit their own fabrication drawings after acceptance of workorder. The fabrication drawings should be got approved before starting the job.
   (e) The indenter reserves the right to make modifications and alterations in the drawings as well as to inspection at every stage of fabrication, testing and assembly. The fabricators should carryout minor modifications without extra cost.
   (f) Suppliers should mention by which method they machine stainless steel Parts, either by lathe or CNC machines. Machining by CNC machine is preferred for this part to get accurate curvature. The 100% scaled drawings of the parts will be supplied for preparation of templates.

2. Materials:
   a) All the stainless steel parts mentioned in the drawings are to be fabricated using the SS-304L stainless steel rods of suitable diameter extruded rods and suitable thickness SS-304L stainless steel plates. The surfaces are to be polished by buffing after fabrication. The fabricated parts should have super-finished surfaces as given in the drawings.
   b) Stainless steel Bolts Nuts and washers are to be supplied for assembly. The sharp corners are to be rounded off before polishing.

3. Fabrication:
   a) The fabrication of components shall be in accordance with best quality shop practice and conform strictly with dimensions, tolerances and instruction given in the drawings & specifications. All the finished parts are true, flat, smooth, mirror polished, corners rounded off, free of weld spatter, etc. Exposed surface shall be protected from damage at all times.
   b) All the fabricated parts should have super-finished surfaces as given in the drawings to RMS 0.8μm by grinding, machining, lapping with abrasives and electro-polishing if necessary.
   c) A general tolerance of ±0.1% on all fabricated parts and 0.05% on machined parts shall be provided unless otherwise specified. Similarly a general tolerance of ±0.30’ shall be provided on all angles. All gasketed surfaces should be super-finished to RMS 0.8μm.
4. **Welding:**
   a) All the welding shall be electric arc. The root pass of all welding shall be made using TIG welding with continuous inert gas like argon gas backing followed by shielded metallic arc welding.
   b) The welding procedures shall be qualified and approved under section IX of ASME Boiler and Pressure Vessel code and shall also be submitted to and approved by Indenter before commencing fabrication.
   c) All the welds are to be inspected and shall be ground smooth. Completed welds shall be smooth and free from any drop-through spatter, cracks undercut or lack of penetration.

5. **Testing:**
   a) Hydrostatic Test: The equipment (part 1) shall be hydrostatically tested for 20 minutes at 1.5 times the operating pressure of 10 kgs/cm². Distortion or leakage will not be permitted. If any closing flanges are required for testing, it is responsibility of fabricator to do the same.
   b) Air Leak Test: Air leak test shall be performed following the hydrostatic test. Prior to performing this test, the part shall be thoroughly dried at a temperature of 70⁰ – 80⁰C for 15 minutes while being purged with dry air.

6. **Cleaning:**
   a) All inside surfaces shall be degreased and then flushed with clean water. The degreasing agent shall not contain halogens. Final cleaning shall be performed with hot water wash using a commercial detergent followed by hot water rinse. Surfaces shall be completely cleaned and degreased.