

CSIR-CENTRAL GLASS AND CERAMIC RESERACH INSTITUTE

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PURCHASE ORDER

M/s VB Ceramics Consultants			P/NC/107/JM/DR/OTE/22-23/5546		
27 A, 14th Link Street, 3rd Cross,			P/NC/10//JIVI/DR/O1E/22-23/3340		
Venkateswara Colony,			30/03/2022		
Nehru Nagar Industrial Estate, Kottivakkam,			Purchase Order		
Chennai 600 041					
Mobile: 9444165369					
E-mail:- zeramist@yahoo.co.in					
Ref: 1. Our E	1. Our Bid Document No. P/NC/107/JM/DR/OTE/22-23/5546				
Rei: 2 Tech	2 Technical & Price Bid No. VBCC/OLIO/RI 251/2022-2023 dated 28/01/2023				

Dear Sir,

I am directed to request you to kindly supply, installation and commissioning the following material as per the enclosed terms & conditions.

S.No.	Item Description		Qty	Unit Price/Rate (INR)	Total Price (INR)
1	SOFC-SOEC Test Bench of rating 500 W		01	33,50,000.00	33,50,000.00
	As per offer attached at Annexure I				
			To	tal price in INR	33,50,000.00
	GST @ 18% on item 6,0				6,03,000.00
	Total FOR, CSIR-CGCRI, Kolkata price in INR		39,53,000.00		

The Specifications of the goods and other services shall strictly conform to those laid down in your offer No. VBCC/QUO/RL251/2022-2023 dated 28/01/2023.

This Contract/Purchase Order shall be governed by:-

- (1) General Conditions of Contract and Special Conditions of Contract as detailed in the Bid Document and
- (2) Special Conditions of Contract enclosed with this Purchase Order.

100% (Hundred Percent), i.e. INR 39,53,000.00 (INR Thirty Nine Lakh and Fifty Three Thousand Only) Inland Letter of Credit to be established of which 80% (Eighty Percent) i.e. INR 31,62,400.00 plus 100% taxes i.e. (INR 6,03,000.00) after deducting GST TDS shall be released against shipping document and the balance 20% (Twenty Percent) shall be released upon delivery of all supplies, installation, commissioning, training and acceptance by the purchaser subject to the submission of Performance Security, Acceptance Certificate issued by the Purchaser, fulfillment of all contractual obligations prescribed in Purchase Order.

The Order Acknowledgement must be submitted immediately and in any case, within 10 days from the date of placement of this Purchase Order failing which, the order will be deemed as cancelled, and the Bid Security, if any submitted by you/Indian Branch Office will be forfeited.

You are requested to return the duplicate copy of this Purchase Order, duly signed and stamped, as a token of your acceptance to this order.

Yours faithfully,

(Anjani Kumar Pandey) Stores & Purchase Officer

For & on behalf of the Council of Scientific & Industrial Research

अंजनी कुमार पाण्डेय/Anjani Kumar Pandey भण्डार एवं क्रय अधिकारी/Stores & Purchase Officer सौएसआईआर - केन्द्रीय काँच एवं सिरामिक अनुसंधान संस्थान CSIR - CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE 196, राजा एस. सी. मल्लिक ग्रेड / 196, Raja S. C. Mullick Road कोलकाता / Kolkata- 700 032

Explanations

The following words and expressions used in this Tender Document shall have the meanings hereby assigned to them:

Purchaser	Means CSIR-Central Glass & Ceramic Research Institute, 196, Raja S.C. Mullick Road, Kolkata 700 032, India.	
Supplier	means VB Ceramics Consultants, 27 A, 14th Link Street, 3rd Cross, Venkateswara Colony, Nehru Nagar Industrial Estate, Kottivakkam, Chennai 600 041	

Terms and Conditions:-

01.	Delivery Term	FOR, CSIR-CGCRI, Kolkata		
02.	Transportation / Despatch	The ordered goods shall be shipped on FOR, CSIR-CGCRI, Kolkata basis.		
03.	Purchase Order Value / Contract Price	INR 39,53,000.00 [INR R Thirty Nine Lakh and Fifty Three Thousand Only]		
04.	Payment	100% (Hundred Percent), i.e. INR 39,53,000.00 (INR Thirty Nine Lakh and Fifty Three Thousand Only) Inland Letter of Credit to be established of which 80% (Eighty Percent) i.e. INR INR 31,62,400.00 plus 100% taxes i.e. (INR 6,03,000.00) after deducting GST TDS shall be released against shipping document and the balance 20% (Twenty Percent) shall be released upon delivery of all supplies, installation, commissioning, training and acceptance by the purchaser subject to the submission of Performance Security, Acceptance Certificate issued by the Purchaser, fulfillment of all contractual obligations prescribed in Purchase Order.		
05.	Performance Security	Shall be submitted @3% of order value valid till Warranty Period 01 years warranty + 60 days after installation.		
06.	Waybill	Waybill if required will be provided by CSIR-CGCRI.		
07.	Customs Duty Exemption Certificate (CDEC)	Not Applicable		
08.	Country of Origin	India		
09.	Port of Shipment	Chennai, India (FOR CSIR-CGCRI, Kolkata basis)		
10.	Delivery period	The Supplier shall ship the consignment within 20 weeks from the date of establishment of Inland Letter of Credit/ issue of Purchase Order. Any increase in statutory duties and/or upward rise in prices due to the PVC (Price Variation Clause) clause and/or any adverse fluctuation in foreign exchange are to be borne by the seller during the extended delivery period, while the purchaser reserves his right to get any benefit of a downward revisions in statutory duties, PVC and foreign exchange rate.		
11.	Warranty	01 (One) Year warranty from the date of completion of successful installation & commissioning including all contractual obligations.		
12.	Banking Charges	All bank charges shall be to the account of the supplier.		
13.	Insurance	The Insurance in respect of goods to cover all risks up to final destination shall be borne by the Seller at its own costs on FOR, CSIR-CGCRI, Kolkata basis.		
14.	Installation, Commissioning	To be done within 14 days from the date of receipt of materials in CSIR-CGCRI.		
15.	Training	Onsite training shall be provided to 04 personnel for 02 working days within 14 days from the date of receipt of materials in CSIR-CGCRI.		
16.	Acceptance	Supply of the items as per the Purchase Order. Completion of Installation and Commissioning and Training certificate will be provided by the supplier duly signed by the user of CSIR-CGCRI for effecting payment.		
17.	Liquidated Damages	LD clause will be applicable as per SCC-24 for delay in delivery and installation including all contractual obligations.		

Denial Clause (over and above levy of Liquidated Damage)

Any increase in statutory duties and/or upward rise in prices due to the PVC (Price Variation Clause) clause and/or any adverse fluctuation in foreign exchange are to be borne by the seller during the extended delivery period, while the purchaser reserves his right to get any benefit of a downward revisions in statutory duties, PVC and foreign exchange rate.

Yours faithfully,

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अंजनी कुमार पाण्डेय/Anjani Kumar Pandey भण्डार एवं क्रय अधिकारी/Stores & Purchase Officer सीएसआईआर - केन्द्रीय कोच एवं सिरामिक अनुसंघान संस्थान CSIR - CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE 196, राजा एस. सी. मल्लिक रोड / 196, Raja S. C. Mullick Road कोलकाता / Kolkata- 700 032

Annexure I



Specifications and Allied Technical Detail for the

Supply, Installation, Commissioning, Training & Demonstration of SOFC-SOEC Stack Test facility.

- 4.1 End Use: To carryout R&D at CSIR-CGCRI, Kolkata.
- 4.2 Specifications

Specifications for SOFC-SOEC Test Bench of rating 500W operable in reversible mode comparing of maximum 25 numbers of single cells:

1. Furnace Details-

- a) Outer dimension 1450×800×1400 mm or more.
- b) Internal dimension 400mm (diameter) ×450mm (Height) to hold SOFC/SOEC stack of dimension 220mm × 115mm with different heights as per the capacity of the stack.
- c) Top hat type furnace with High-quality Stainless-steel body and other necessary arrangements as required (furnace stand, metal structure, heat insulation etc.)
- d) Furnace base will have six holes for the tubing fitted with stack bottom plate, two holes for the current collector, two holes for the cell Voltage Monitoring (CVM) cables, two holes for additional thermocouples (please see figure 1 tentative Design of Furnace base)
- e) maximum temperature 1200°C, working temperature 1000°C with accuracy \pm 2°C or less using suitable thyristors, single phase AC (230V.50HZ) and APM Kanthal heating element.
- f) One K-type thermocouples for monitoring the temperature uniformity inside the furnace.
- g) Eurotherm or suitable make furnace temperature controller and indicator with at6least four programs and each of sixteen segments.
- h) proper indicators for voltage, current and others needs to be provided
- i) Valid calibration certificates will be provided for all the necessary instruments.

2. SOFC-SOEC stack compression arrangements: -

- a) Combination of dead and Pneumatic load with digitally controlled will be there in the system.
- b) Maximum load capacity 100 kg or more (dead load arrangements will be there with a step option from 0 to 25 kgs, rest will be applied through the controlled pneumatic load application system)
- c) Inconel support will be available with the pneumatic load arrangements (for both load application and as well as in the base of the stack) the system will also have the provision to apply the load on to the different capacity stacks as there will be different heights for different capacity stacks to be fitted with in the earlier mentioned inside dimension of the furnace.

3.Gas Inlet and outlet arrangements-

- a) Aalborg/Alicat/Bronkhorst make MFCs will be used for different gas flow arrangement.
- b) Flowrate of different gases

Hydrogen-0.4 to 20 LPM

Argon - 0.2 to 5LPM

Oxygen -0.4 to 10 LPM

Air - 0.5 to 50 LPM

- c) Provision of mixing will be there for hydrogen and Argon feed gas, provision will also be there for future up-gradation with other fuel gases (please see figure 2 Tentative Design of Mixing Arrangements of fuel side feed gases with provision for future upgradation)
- d) Oxygen and Air mixing possibilities will be present.
- f) Suitable tubing will made to accommodate the flowrate of the different gases.
- g) Pressure sensors, non-return valves, indicators, needle valves will be incorporated as per the need of operation and safety aspect.
- h) Necessary humidification arrangements with option to control, will be there in the fuel gas feed line in such a way that it will work as humidifier during the SOFC mode of operation and will work as steam generator during the SOEC mode of operation.

4.SOFC-SOEC stacks feed gas preheater-

- a) User controlled safety alarm system
- b) PLC controlled system with user friendly software base user interface
- c) Overall performance monitoring, with CVM and temperature values and data storage arrangement will be available

5.Others

- a. User Controlled safely alarm system
- b. PLC controlled with user friendly software base user interface
- Overall performance monitoring, with CVM and temperature values and data storage arrangement will be available

Process & Instrumentation diagrams i9s needed before start-up of the fabrication upon approval from customer.

SPECIFICATION FOR SOFC-SOEC TEST BENCH

1. FUEL CELL REACTOR (FURNACE)

1.1 FURNACE STRUCTURE

1. Outer Shell size : 1500 x 800 x 1500 mm

2. Furnace useful Size : 400 (Dia) X 500 (H) mm (Hot Zone Size)

Stack component dimension is 220 mm X 115 mm with variable heights

3. Shell Construction : High quality fabrication of S. S.

Body and S. S. Angle's structure with proper

stiffeners and neat powder coat painting

4. Furnace Design : Split Type /

5. Furnace stand : Furnace stand with sufficient and compact

metal structure (Table Top)

6. Insulation : Vacuum Formed boards from MMTCL

7. Panel box : Separate panel box with all necessary instruments

will be placed separately at the floor.

8. H2 & O2 and other tapings : Bottom of the hot zone 6 holes for gases (one side

02 nos. for Hydrogen in,01 no. for Oxygen or air out, on the other side 02 nos. for Oxygen or Air in

and 01 no. for Hydrogen out).

Extra holes will be required for main current collector 02 nos., for CVM cables 02 nos., for extra thermocouples 02 nos.

9. Tubing : Inside Furnace Inconel Tubing (12mm) till your stack bottom plate

Outside Furnace SS Tubing (12mm)

10. Furnace Outlet : Furnace Outlet gases will be cool by Three

mechanisms a) Plate type Heat exchanger, b)

Radiator type and c) Condenser

1.2 FUEL CELL STACK COMPRESSION SYSTEM

1. Compress or loading mechanism : Dead load with Digital pneumatic load

2. Compressing arrangement : Pneumatic cylinder coupled with

Inconel Tube

3. Maximum Load (compression) : 100 kgs

4. Load Control : Digital Load Indicator cum with

Controller with RS 232 ports

5. Inconel Tube size : 40 mm dia and 300mm length

6. Bottom of load : Inconel Support will be provided as the base

support of the stack on which the stack will be placed to adjust the height of support

w.r.t different stacks

1.3 HEATING SYSTEM

1. Type of Heating : Resistance heating method

Heating elements
 Operation
 APM KANTHAL
 Single phase / AC

4. Power : 4-6 kW

5. Maximum Temperature : 1200 □ C (Max)

6. Working temperature : 1000 □ C

7. Heating element Holder : Alumina tube / muffle type

1.4 TEMPERATURE MEASUREMENT SYSTEM

1. Temperature sensor : 'K' type thermocouple

2. Accuracy : $\Box 1 \Box C$

3. Total number of sensors : Three

1.5. CONTROL SYSTEM

1. Temperature control : Eurotherm PID programmer cum Digital

Temperature Indicator RS 485 compatible (4 programs and 16 segments)

2. No of temperature Controller: 3 numbers (Single Zone Furnace, however we can

monitor the temperature 3 places in the Hotzone Make: Eurotherm (1 No.) and TAIE (2 nos.)

3. Temperature sensor : **K type thermocouple**

4. Accuracy : $\Box 1 \Box C$

5. Total number of temp.sensor: Seven (furnace and preheater)

6. Humidity Controller : Two Independent Humidity controllers

7. Pressure Indicator : Four Pressure Indicator with alarm setting

8. Power control : Through thyristor [vbcc make]

Single Zone Furnace

9. Indications : a) Ammeters and Voltmeters

b) Mains Indicator c) Out put Indicator

10. Calibration : All the necessary instruments are calibrated and

certificates will be provided

1. GAS PREHEATER FURNACE

2.1 PREHEATER SETUP

1. Heating elements : Kanthal wire will be wounded on SS Tubes

2. Shell Construction : SS Tubes

3. Insulation : Fibre Rope wounded on SS tubes

4. Tubing arrangement : For H2 and O2 tubes

5. Tubing : Inconel Tubing (10mm ID)

6. Fixer : Preheater is fixed at bottom of the reactor

2.2 HEATING SYSTEM

1. Type of Heating : Direct resistance heating method

2. Heating elements : KANTHAL / Nicrothal wire

3. Operation : Single phase / AC

4. Power : $\Box 3.5 \text{ kW}$

5. Maximum Temperature : 900 □ C (Max)

6. Working temperature : 850□C

2.3 TEMPERATURE CONTROL / MEASUREMENT SYSTEM

1. Temperature sensor : 'K' type thermocouple (to measure tube temp)

2. Accuracy : $\Box 1 \Box C$

3. Total number of sensor : One

4. Temperature control : TAIEPID programmer cum Digital Temperature

Indicator RS 485 compatible

2. HUMIDITY CHAMBER

NO OF CHAMBERS: 2

For SOFC – Act as Humidity For SOEC – Act as Steam CHAMBER CONSTURTION

1. Outer Shell size : 350 x 350 x 300 mm

2. Chamber useful Size : 300 X 300 X 100 mm

3. Outer chamber : Mild steel with neat powder coat

4. Inner chamber : Stainless steel (316) with vapor tight enclosure

5. Insulation : Non-settling, high-density, low "K' factor fiberglass

6. Humidity system : Self-Steam generated humidity system

with variable flow rate from 10 to 40 LPM with

control and display.

7. Humidity range : 50-90%RH

8. Tubing System : Tubing are zig zagally placed at chamber at the

Height of 300 mm

9. Humidity sensor : Electronic humidity sensor (transducer type)

10. No of sensor : One (for each chamber)

4. MASS FLOW CONTROLLER AND PIPE LINE SYSTEM

MASS FLOW CONTROLLER

Mass Flow Controller Make:

Alborg

Flow range

H2 - 0.2 - 20 LPM

Air - 0.2 - 50 LPM. Argon - 0.2 -5 LPM -0.5 - 10 LPM

1. has provision for Hydrogen and Argon mixing.

2. Option available for future Up gradation with possibilities of other gases as fuel feed.

3. Oxygen and Air mixing option available

4. Emergency Argon purge arrangement in both side available using manual rotometer

Power supply

12V DC

Tube Fittings

1/4" Stainless steel fittings

Accuracy +/-

1.5% of FS

Controller Value Adjustment

Normally closed solenoid control value LCD Flow display and Flow adjustment

Metal Body

Aluminum body, Viton seals

No of Mass flow controller :

4 (Four Nos)

TUBING AND FITTING

Tube Fittings

12mm ID Swagelok Stainless steel fittings

Tubing

12mm ID Tubing(Inconel)

NRV

Two Non return valves are placed at the ouput of

Mass flow controller

Pressure sensors

4 number of Pressure sensor

Pressure Placement

Two pressures sensor are placed at Input Two Pressure sensor are placed at output Indicator will be provided at the control panel

With Safety alarm arrangement

Pressure sensor range

0-7 bar

Needle Valve:

Quarter inch ferrule type needle valves will be

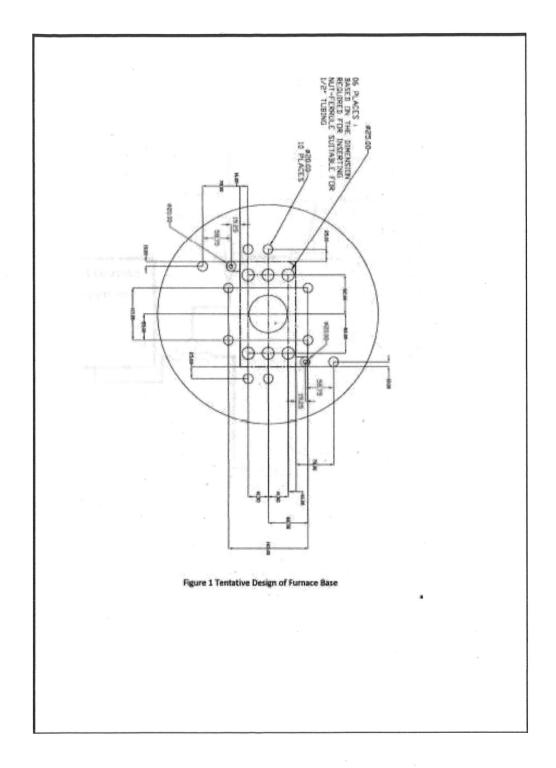
Provided for Safety :

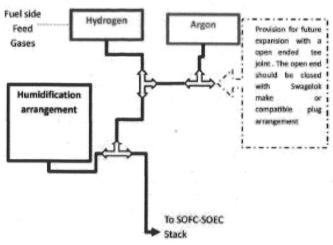
No of needle valves

5 nos

Control Automation:

- User Controlled safely alarm system
- > PLC controlled with user friendly software base user interface
- Overall performance monitoring, with CVM and temperature values and data storage arrangement will be available
- Process & Instrumentation diagrams i9s needed before start-up of the fabrication upon approval from customer.





CONDITIONS OF CONTRACT

A GENERAL CONDITIONS OF CONTRACT (GCC)

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GENERAL CONDITIONS OF CONTRACT (GCC)

2.1 <u>Definitions</u>

- 2.1.1 The following words and expressions shall have the meanings hereby assigned to them:
 - (a) "Contract" means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
 - (b) "Contract Documents" means the documents listed in the Contract Agreement, including any amendments thereto.
 - (c) "Contract Price" means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
 - (d) "Day" means calendar day.
 - (e) "Completion" means the fulfilment of the Goods and related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
 - (f) "GCC" means the General Conditions of Contract.
 - (g) "Goods" means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
 - (h) "Related Services" means the services incidental to the supply of the goods, such as transportation, insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
 - (i) "SCC" means the Special Conditions of Contract.
 - private "Subcontractor" (j) means natural entity, any person. orgovernment or а combination of the above, to whom any of the Goods supplied or part execution of any part of the Related Services is subcontracted by the Supplier.
 - means (k) Supplier" the natural person, private government entity, or а combination the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
 - (I) The "Council" means the Council of Scientific & Industrial Research (CSIR), registered under the Societies Registration Act, 1860 of the Govt. of India having its registered office at 2, Rafi Marg, New Delhi-110001, India.
 - (m)The "Purchaser" means any of the constituent Laboratory/Institute of the Council situated at any designated place in India as specified in SCC.
 - (n) "The final destination," where applicable, means the place named in the SCC.

2.2 Contract Documents

2.2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

2.3 Code of Integrity

- 2.3.1 With out prejudice to and in addition to the rights of the Purchaser to other penal provisions as per the bid documents or contract, if the Purchaser comes to a conclusion that a (prospective) bidder/ supplier, directly or through anagent, has violated this code of integrity incompeting for the contractor in executing a contract, the Purchaser may take appropriate measures including one or more of the following:
 - a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the purchaser;
 - b) Forfeiture or encashment of any other security or bond relating to the procurement;
 - c) Recovery of payments including advance payments, if any, made by the Purchaser along with interest thereon at the prevailing rate.

- a) Provisions in addition to above:
 - 1) Removal from the list of registered suppliers and banning/debarment of the bidder from participation in future procurements of the purchaser for a period not less than one year;
 - 2) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India;
 - 3) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.

2.4 <u>Joint Venture, Consortium or Association</u>

2.4.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfilment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

2.5 Scope of Supply

2.5.1 The Goods and Related Services to be supplied shall be as specified in Chapter 4 i.e. Specifications and allied technical details.

2.6 Suppliers' Responsibilities

2.6.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the GCC, and the Delivery and Completion Schedule, as per GCC Clause relating to delivery and document.

2.7 Contract price

2.7.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

2.8 Copy Right

2.8.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

2.9 Application

2.9.1 Conditions These General shall apply to the extent that they are not superseded bν provisions in other parts of the Contract.

2.10 Standards

2.10.1 The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

2.11 <u>Use of Contract Documents and Information</u>

- 2.11.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.
- 2.11.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated above except for purposes of performing the Contract.
- 2.11.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

2.12 Patent Indemnity

- 2.12.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 2.12.2 Indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
 - (a) the installation of the Goods by the Supplier or the use of the Goods in India; and
 - (b) the sale in any country of the products produced by the Goods.
- 2.12.2 If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

2.13 <u>Performance Security</u>

- 2.13.1 Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish performance security in the amount specified in SCC, valid till 60 days after the warranty period.
- 2.13.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 2.13.3 The Performance Security shall be denominated in Indian Rupees for the offers received for supplies within India and denominated in the currency of the contract in the case of offers received for supply from foreign countries or in equivalent Indian Rupees in case the Performance Security is submitted by the Indian Agent.
- 2.13.4 In the case of imports, the PS may be submitted either by the principal or by the Indian agent and, in the case of purchases from indigenous sources, the PS may be submitted by either the manufacturer or their authorized dealer/bidder.
- 2.13.5 The Performance security shall be in one of the following forms:
 - (a) A Bank guarantee or stand-by Letter of Credit issued by a Nationalized/Scheduled bank located in India or a bank located abroad in the form provided in the bidding documents.

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- (b) A Banker's cheque or Account Payee demand draft in favour of the purchaser.
- 2.13.6 The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations, unless specified otherwise in SCC, without levy of any interest.
- 2.13.7 In the event of any contract amendment, the supplier shall, within 21 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the contract, as amended for further period of 60 days thereafter.
- 2.13.8 The order confirmation must be received within 14 days. However, the Purchaser has the powers to extend the time frame for submission of order confirmation and submission of Performance Security (PS). Even after extension of time, if the order confirmation /PS are not received, the contract shall be cancelled provided that the purchaser, on being satisfied that it is not a case of cartelization and the integrity of the procurement process has been maintained, may, for cogent reasons, offer the next successful bidder an opportunity to match the financial bid of the first successful bidder, and if the offer is accepted, award the contract to the next successful bidder at the price bid of the first successful bidder.
- 2.13.9 Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

2.14 <u>Inspections and Tests</u>

2.14.1 The inspections & required would detailed in Chapter-4 of the test. training be as Bidding Document relating to Specification and Allied Technical details.

2.15 Packing

- 2.15.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- 2.15.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

2.16 Delivery and Documents

- 2.16.1 Delivery of the Goods and completion and related services shall be made by the supplier in accordance with the terms specified by the Purchaser in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 2.16.2 The terms FOB, FCA, CIF, CIP, etc. shall be governed by the rules prescribed in the current edition of the Inco terms published by the International Chambers of Commerce, Paris, currently it is Incoterms 2010.

2.16.3

The mode of transportation shall be as specified in SCC. In case the purchaser elects to have the transportation done through Air, then air lifting needs to be done through Air India only. In case Air India does not operate in the Airport of despatch, then the bidder is free to engage the services of any other Airlines.

2.17 <u>Insurance</u>

- 2.17.1 Should the purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.
- 2.17.2 Where delivery of the goods is required by the purchaser on CIF or CIP basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary and initiate & pursue claims till settlement, on the event of any loss or damage.
- 2.17.3 Where delivery is on FOB or FCA basis, insurance would be the responsibility of the purchaser.
- 2.17.4 With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.

2.18 Transportation

- 2.18.1 Where the Supplier is required under the Contract to deliver the Goods FOB, transport of the Goods, up to and including the point of putting the Goods on board the vessel at the specified port of loading, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract price. Where the Supplier is required under the Contract to deliver the Goods FCA, transport of the Goods and delivery into the custody of the carrier at the place named by the Purchaser or other agreed point shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.18.2 Where the Supplier is required under the Contract to deliver the Goods CIF or CIP, transport of the Goods to the port of destination or such other named place of destination in the Purchaser's country, as shall be specified in the Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.
- 2.18.3 In the case of supplies from within India, where the Supplier is required under the Contract to transport the Goods to a specified destination in India, defined as the Final Destination, transport to such destination, including insurance and storage, as specified in the Contract, shall be arranged by the Supplier, and the related costs shall be included in the Contract Price.

2.19 <u>Incidental Services</u>

2.19.1 The supplier may be required to provide any or all of the services, including training, if any, specified in chapter 4 of Tender Document.

2.20 Spare Parts

- 2.20.1 The Supplier shall be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:
 - (a) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
 - (b) In the event of termination of production of the spare parts:
 - (i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
 - (ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

2.21 Warranty

- 2.21.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 2.21.2 The Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.
- 2.21.3 Unless otherwise specified in the SCC, the warranty shall remain valid for Twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for Eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 2.21.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 2.21.5 Upon receipt of such notice, the Supplier shall, within a reasonable period of time, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 2.21.6 If having been notified, the Supplier fails to remedy the defect within a reasonable period of time; the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 2.21.7 Goods requiring warranty replacements must be replaced on free of cost basis to the purchaser.

2.22 <u>Terms of Payment</u>

- 2.22.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.
- 2.22.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to Delivery and document Clause of the GCC and upon fulfillment of other obligations stipulated in the contract.
- 2.22.3 Payments shall be made promptly by the Purchaser but in no case later than thirty (30) days after submission of the invoice or claim by the Supplier. While claiming the payment, the supplier should certify in the bill/invoice that the payment being claimed strictly in terms of the contract and all obligations on the part of the supplier for claiming the payment have been fulfilled as required under the contract.
- 2.22.4 Payment shall be made in currency as indicated in the contract.

2.23 Change Orders and Contract Amendments

- 2.23.1 The Purchaser may at any time, by written order given to the Supplier pursuant to Clause on Notices of the GCC make changes within the general scope of the Contract in any one or more of the following:
 - (a) Increase or decrease in the quantity required, exercise of quantity opinion clause;
 - (b) Changes in schedule of deliveries and terms of delivery;
 - (c) The changes in inspection arrangements;
 - (d) Changes in terms of payments and statutory levies;

- (e) Changes due to any other situation not anticipated;
- 2.23.2 No changes in the price quoted shall be permitted after the purchase order has been issued except on account of statutory variations.
- 2.23.3 No variation or modification in the terms of the contract shall be made except by written amendment signed by the parties.

2.24 Assignment

2.24.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

2.25 Subcontracts

2.25.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or duties or obligation under the contract.

2.26 Extension of time.

- 2.26.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.
- 2.26.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.
- 2.26.3 Except as provided under the Force Majeure clause of the GCC, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to liquidated damages Clause of the GCC unless an extension of time is agreed upon pursuant to above clause without the application of penalty clause.

2.27 <u>Liquidated Damages</u>

2.27.1 Subject to GCC Clause on Force Majeure, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services or contract value in case the delivered price of the delayed goods or unperformed services cannot be ascertained from the contract, for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause on Termination for Default.

2.28 <u>Termination for Default</u>

- 2.28.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part
 - (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause on Extension of Time; or
 - (b) If the Supplier fails to perform any other obligation(s) under the Contract.
 - (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent or collusive or coercive practices etc as defined in GCC Clause and ITB clause on code of integrity in competing for or in executing the Contract.
- 2.28.2 In the event the purchaser terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
 - (a) The Performance Security is to be forfeited;
 - (b) The purchaser may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the supplier shall be liable for all available actions against it in terms of the contract.
 - (c) However, the supplier shall continue to perform the contract to the extent not terminated.

2.29 Force Majeure

- 2.29.1 Notwithstanding the provisions of GCC Clauses relating to extension of time, Liquidated damages and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 2.29.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, guarantine restrictions, and freight embargoes.
- 2.29.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 2.29.4 If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

2.30 <u>Termination for Insolvency</u>

2.30.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

2.31 <u>Termination for Convenience</u>

- 2.31.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- 2.31.2 The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
 - (a) To have any portion completed and delivered at the Contract terms and prices; and/or
 - (b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

2.32 <u>Settlement of Disputes</u>

- 2.32.1 The Purchaser the supplier shall make effort direct and everv amicably informal negotiation any disagreement dispute arising between them under or or in connection with the Contract.
- 2.32.2 If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
- 2.32.3 The dispute settlement mechanism/arbitration proceedings shall be concluded as under:
 - (a) If any dispute or difference arises between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Delhi International Arbitration Centre (DIAC), Delhi High Court, New Delhi. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
 - (b) In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be

settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

2.32.4

The venue of the arbitration shall be the place from where the purchase order or contract is issued.

- 2.32.5 Notwithstanding, any reference to arbitration herein,
 - (a) The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
 - (b) the Purchaser shall pay the Supplier any monies due the Supplier.

2.33 Governing Language

2.33.1 The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.

2.34 Applicable Law

2.34.1 The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

2.35 Notices

- 2.35.1 Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX, e-mail or and confirmed in writing to the other party's address specified in the SCC.
- 2.35.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

2.36 Taxes and Duties

- 2.36.1 For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.
- 2.36.2 For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.
- 2.36.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
- 2.36.4 All payments due under the contract shall be paid after deduction of statutory levies (at source) (like IT, etc.) wherever applicable.
- 2.36.5 **Customs Duty** If the supply is from abroad this Institute is permitted to import goods as per notification No.51/96 Customs and pay a concessional duty up to 5% as per notification 24/2002 Customs on all imports.

2.37 Right to use Defective Goods

2.37.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

2.38 Protection against Damage

- 2.38.1 The system shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site as under:
 - (a) Voltage 230 volts Single phase/ 415 V 3 phase (+_ 10%)
 - (b) Frequency 50 Hz.

2.39 <u>Site preparation and installation</u>

2.39.1 The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications defined by the Supplier. The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the purchaser's site immediately after notification of award/contract.

2.40 Import and Export Licenses

- 2.40.1 If the ordered materials are covered under restricted category of EXIM policy in India the Vendor / Agent may intimate such information for obtaining necessary, license in India.
- 2.40.2 If the ordered equipment is subject to Vendor procuring an export license from the designated government agency / country from where the goods are shipped / sold, the vendor has to mention the name, address of the government agency / authority. The vendor must also mention the time period within which the license will be granted in normal course.

2.41 Risk Purchase Clause

2.41.1 If the supplier fails to deliver the goods within the maximum delivery period specified in the contract or Purchase Order, the purchaser may procure, upon such terms and in such a manner as it deems appropriate, Goods or Services similar to those undelivered and the Supplier shall be liable to the purchaser for any excess costs incurred for such similar goods or services.

2.42 Option Clause

2.42.1 The Purchaser reserves the right to increase or decrease the quantity of the required goods up to 25% (Twenty-Five) per cent at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

2.43 Integrity Pact

- 2.43.1 The SCC shall specify whether there is a need to enter into a separate Integrity pact or not.
- 2.43.2 The names and contact details of the Independent External Monitors (IEM) on the event of the need of IP is as detailed in the SCC.

2.44 Order Acceptance

2.44.1 The successful bidder should submit Order acceptance within 14 days from the date of issue of order/signing of contract, failing which it shall be presumed that the vendor is not interested and his bid security is liable to be forfeited pursuant to clause 1.16.9 of ITB.

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

SCC 1	The Purchaser is: Director, CSIR-Central Glass & Ceramic Research Institute, 196, Raja S. C.Mullick Road, P.O.
000 1	Jadavpur, Kolkata-700032, West Bengal, India.
SCC 2	The Supplier is:
	M/s. VB Ceramics Consultants, 27 A, 14th Link Street, 3rd Cross, Venkateswara Colony, Nehru Nagar Industrial
0000	Estate, Kottivakkam, Chennai 600 041
SCC 3	The Manufacturer is: M/a VR Coronics Consultants, 27 A 14th Link Street, 2rd Cross, Venketseware Colony, Nebru Nagar Industrial
	M/s. VB Ceramics Consultants, 27 A, 14th Link Street, 3rd Cross, Venkateswara Colony, Nehru Nagar Industrial Estate, Kottivakkam, Chennai 600 041
SCC 4	Calibration:
	Certificates of calibration traceable to International Standards must be provided, if applicable.
SCC 5	Final Destination:
	CSIR-Central Glass & Ceramic Research Institute, 196, Raja S. C. Mullick Road, P.O. Jadavpur, Kolkata-700032,
0000	West Bengal, India
SCC 6	Order Acknowledgement/Confirmation: The order confirmation should be received within 10 days from the date of purchase order indicating detailed
	specifications of the equipment as mentioned in the purchase order including the value of the purchase
	order/equipment. The schedule of the visit of Service Engineer/(s) for inspection of the site may also be provided
	along with the order confirmation.
SCC 7	Performance Security
	The amount of the Performance Security shall be: INR 1,18,590/-
	The Cumplier shall furnish performance acquirity equivalent to 20/ of the contract price, yellid till 60 days after the
	The Supplier shall furnish performance security equivalent to 3% of the contract price, valid till 60 days after the warranty period of Twelve months. at the time of release of final 20% payment after completion of Installation,
	Commissioning and Acceptance Certificate issued by the Purchaser and fulfillment of all contractual obligations
	prescribed in Purchase Order.
	The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting
	from the Supplier's failure to complete its obligations under the Contract.
	The Performance security shall be in one of the following forms:
	a) A Bank guarantee issued by a Nationalized/Scheduled bank located in India Or
	b) A Banker's cheque or Account Payee demand draft in favour of the purchaser.
	The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days
	following the date of completion of the Supplier's performance obligations, including any warranty obligations, without
SCC 8	levy of any interest.
SCC 8	Delivery:
	The delivery of the Goods shall be within 20 weeks from the date of establishment of Inland Letter of Credit /
	acceptance of Purchase Order
	Any increase in statutory duties and/or upward rise in prices due to the PVC (Price Variation Clause) clause and/or
	any adverse fluctuation in foreign exchange are to be borne by the seller during the extended delivery period, while
	the purchaser reserves his right to get any benefit of a downward revisions in statutory duties, PVC and foreign exchange rate.
	Change rate.
	The delivery should be synchronized alongwith the supply of main imported items. (IF APPLICABLE)
	Event as provided under the Force Majoure slaves a delay by the Complian in the newformance of its delivery
	Except as provided under the Force Majeure clause, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to Penalty Clause unless an
	extension of time is agreed upon pursuant to above clause without the application of penalty clause.
SCC 9	Part supply will not be accepted.
SCC 10	The country of origin of the Goods is INDIA (IF APPLICABLE)
SCC 11	The port of shipment of the Goods is Chennai (India)
SCC 12	The mode of shipment: By Air/Road.
SCC 14	Pre Dispatch Inspection at manufacturer's site is to be arranged by the supplier with at least one week of prior
	intimation. The expenditure of the visit of CGCRI personnel viz. travel, bearding and lodging etc. will be borne by CSIR CGCRI KOLKATA. Necessary instruments are to be kept ready by the vendor to carry out measurement of
	the technical parameters to establish quality of the product. The testing charges for samples (if any) should be borne
	by the supplier.
SCC 15	Installation, Commissioning & Training:
	Installation, Commissioning& Erection is to be done by Expert & Trained Engineers of M/s. VB Ceramics
	Consultants, Chennai in CSIR-CGCRI Kolkata. The pre-installation requirements at the site for trouble free and
	appropriate installation and operation must be clearly indicated in advance.
	All charges for Installation & Commissioning are included in Purchase Order value. Installation & Commissioning to
	17 in Granges for installation & Commissioning are installed in 1 dichase Order value, installation & Commissioning to

	be completed within 14 days from the receipt of goods in this Institute.
	Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.
	Onsite training shall be provided to 04 personnel for 02 working days within 14 days from the date of receipt of materials in CSIR-CGCRI.
SCC 16	Inspection and Tests The Inspection tests prior to shipment of goods and at final acceptance at buyers site.
	After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the Supplier's plant by the Supplier prior to shipment to check whether the goods are in conformity with the technical specifications.
	Manufacturers Test Certificate with data sheet shall be issued to the effect and submit along with delivery documents.
	The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at Purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified. In the event of the ordered item failing to pass the acceptance test, a period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which, the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser. Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.
	Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance Manuals together with Drawings of the goods and equipment built. These shall be in such details as will enable the Purchase to operate, maintain, adjust and repair all parts of the works as stated in the specifications. The Manuals and Drawings shall be in the ruling language (English) and in such form and numbers as stated in the Contract. Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purposes of taking over until such Manuals and Drawing have been supplied to the Purchaser.
	On successful completion of acceptability test, receipt of deliverables, etc. and after the Purchaser is satisfied with the working of the equipment, the acceptance certificate signed by the Supplier and the representative of the Purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the equipment.
SCC 17	Annual Maintenance Contract (AMC) (IF APPLICABLE)
	In case CSIR-Central Glass & Ceramic Research Institute, Kolkata requires AMC, a separate contract will be issued to the vendor based on the AMC quote received from M/s xxxxxxxxxxxxxxxxxxxx.
SCC 18	Packing: The marking and documentation within and outside the packages shall be:
	a. Each package should have a packing list within it detailing the part No.(s), description, quantity etc.
	b. Outside each package, the contract No., the name and address of the purchaser and the final destination should be indicated on all sides and top.
	c. Each package should be marked as 1/x, 2/x, 3/xx/x, where "x" is the total No. of packages contained in the consignment.
	d. All the sides and top of each package should carry an appropriate indication/label/stickers indicating the precautions to be taken while handling/storage.

SCC 19	Shipping and other Documents
	Details of Shipping and other Documents to be furnished by the Supplier are
	(i) For Goods manufactured within India Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by registered post / speed post and copies thereof by FAX:
	(a)Two copies of Supplier's Invoice indicating, <i>inter-alia</i> description and specification of the goods, quantity, unit price, total value;
	(b)Packing list;
	(c)Certificate of country of origin;
	(d)Insurance certificate, if required under the contract;
	(e)Railway receipt/Consignment note;
	(f)Manufacturer's guarantee certificate and in-house inspection certificate;
	(g) Inspection certificate issued by purchaser's inspector, if any and
	(h) Any other document(s) as and when required in terms of the contract.
	Note: 1.The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s)
	2. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses
	(ii) For Goods manufactured abroad
	Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by Registered Post/courier and copies thereof by FAX:
	(a) Two copies of supplier's Invoice giving full details of the goods including quantity, value, etc.;
	(b) Packing list;
	(c) Certificate of country of origin;
	(d) Manufacturer's guarantee and Inspection certificate;
	(e) Inspection certificate issued by the Purchaser's Inspector, if any;
	(f) Insurance Certificate, if required under the contract;
	(g) Name of the Vessel/Carrier;
	(h) Bill of Lading/Airway Bill;
	(i) Port of Loading;
	(j) Date of Shipment;
	(k) Port of Discharge & expected date of arrival of goods and
	(I) Any other document(s) as and when required in terms of the contract.
	Note:
	1. The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s). 2. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the
SCC 20	Supplier will be responsible for any consequent expenses. Mode of dispatch
SCC 21	By Road. Insurance
300 21	The Insurance in respect of goods to cover all risks up to final destination shall be borne by the Seller at its own costs on FOR CSIR-CGCRI, Kolkata basis.
	The Insurance shall be for an amount equal to 110% of the CIF or CIP value of the contract from within "warehouse to warehouse (final destination)" on "all risk basis" including strikes, riots and civil commotion.
SCC 22	Warranty: The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract. The Supplier should further warrant that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in India.

One year warranty from the date of completion of installation and commissioning of the equipment to the entire satisfaction of this Institute (Purchaser).

The Buyer shall promptly notify the Supplier in writing of any claims arising under this warranty.

Upon receipt of such notice, the Supplier shall, within 21 days, repair or replace the defective goods or parts thereof, free of cost at the ultimate destination point / Buyer's site i.e CGCRI premises. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Buyer for the replaced parts/goods thereafter on this account.

The period for correction of defects in the warranty period is 21 days.

If the Supplier having been notified fails to remedy the defects within 21 days, the Buyer may proceed to take such remedial action as may be necessary, at the Supplier's risk and expenses and without prejudice to any other rights which the Buyer may have against the Supplier under the order.

SCC 23 Payment:

The payment shall be made, as follows:

The method and conditions of payment to be made to the Supplier under this Contract shall be as follows: Payment for Goods supplied from abroad:

Payment shall be made in currency as indicated in the contract and shall be released as follows:

100% (Hundred Percent), i.e. INR 39,53,000.00 (INR Thirty Nine Lakh and Fifty Three Thousand Only) Inland Letter of Credit to be established of which 80% (Eighty Percent) i.e. INR INR 31,62,400.00 plus 100% taxes i.e. (INR 6,03,000.00) after deducting GST TDS shall be released against shipping document and the balance 20% (Twenty Percent) shall be released upon delivery of all supplies, installation, commissioning, training and acceptance by the purchaser subject to the submission of Performance Security, Acceptance Certificate issued by the Purchaser, fulfillment of all contractual obligations prescribed in Purchase Order.

The L/C (for 100% of Contract Price) will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the opener i.e. purchaser. If L/C is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers' account.

OR

(WHICHEVER IS APPLICABLE)

A) Ninety Percent (90%) of the cost of Goods plus 100% taxes will be paid through RTGS against delivery & inspection through e-payment mode, i.e. RTGS.

B) Ten Percent (10%) of the cost of Goods shall be paid to the Supplier within thirty (30) days after the date of the completion of Installation, Commissioning, Demonstration & Training and certificate issued by the Purchaser subject to submission of Performance Security.

Payment will be made by RTGS mode only. Payment will be made by e-Payment mode, i.e. RTGS only after receipt of items in good condition in our stores and its proper installation and commission at the user and (wherever applicable). Part supplies should be avoided at any cost. If due to unavoidable reasons part supply is made, bill will only be processed for payment after completion of the supply/installation/commissioning as the case may be. **Bills for partial supply should not be raised.** Bills can only be raised after completion of the entire supply. The duly signed invoices should be submitted in **Triplicate** with pre-receipted revenue stamp (Revenue Stamp required for all invoices of more than Rs. 5,000.00). The RTGS details should be indicated as per the RTGS format enclosed. Out purchase order number must be quoted on your Invoice. Overwriting /Cutting should be avoided on invoices. Submitting wrong invoices or invoices without revenue stamps might result in delay of payment.

All payments due under the Contract shall be paid after deduction of statutory levies at source (like ESIC, Income Tax, GSTTDS etc.), wherever applicable.

SCC 24 Liquidated Damages :

Subject to the operation of force majeure, time of delivery and acceptance is the essence of this order. The supplier shall arrange to ship the consignment within **140 days** (i.e. **20 weeks**) from the date of **confirmed Inland L/C** / **issue of Purchase Order** unless an extension is granted by a mutual agreement. As the sole and exclusive remedy for delay in shipment beyond the agreed upon shipment date, the supplier shall pay to the buyer liquidated damages at **0.5%** per week or part of a week towards late delivery. The maximum amount of liquidated damages shall be 10% and towards delay in installation, commissioning & training including all contractual obligations will also attract LD clauses—Installation & Commissioning, demonstration, training to be completed within **14 days** from the receipt of goods in this Institute. The liquidated damages shall be levied on the delivered price of the delayed Goods or unperformed Services or contract value.

SCC 25 Site preparation, Installation, Commissioning, Erection & Training:

The Purchaser along with the Supplier will demarcate the scope along with responsibility of site preparation and installation. The Purchaser in consultation with the Supplier will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any,

	needed for installation, of the goods at the purchaser's site immediately after notification of award/contract.
	Onsite training shall be provided to 04 personnel for 02 working days within 14 days from the date of receipt of materials in CSIR-CGCRI.
SCC 26	Manuals & Drawing
	Supplier will make available to the Buyer necessary documents and manuals. Before the goods and equipment's are taken over by the Buyer, the Supplier shall supply operation and maintenance manuals together with drawings of the goods and equipment's built. These shall be in such details as will enable the Buyer to operate, maintain, adjust and repair all parts of the equipment to be delivered under this Purchase Order.
	The manuals and drawings shall be in the ruling language (English).
	Unless and otherwise agreed, the goods / equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Buyer.
SCC 27	Notice of Improvement On a continuing basis, the supplier shall inform the buyer the time to time improvement in respect of the equipment. Such information shall be accompanied by technical newsletter, reliability improvement notice etc.
SCC 28	Force Majeure Notwithstanding the provisions relating to extension of time and penalty the Supplier shall not be liable for forfeiture of its performance security or liquidated damages, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
	For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes. If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
	If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.
SCC 29	Settlement of Disputes
	(i) The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
	(ii) If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.
	(iii) The dispute settlement mechanism/arbitration proceedings shall be concluded as under:
	(a) In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996 and Arbitration & Conciliation (Amendment) Act 2015, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Delhi International Arbitration Centre (DIAC), Delhi High Court, New Delhi.
	(b) "Arbitration Clause" in the domestic agreement will be as under:-
	"ARBITRATION
	1. In the event of any question /dispute/difference arising under the agreement or in connection herewith (except as to matters the decision of which is specially provided under this agreement) the same shall be referred to the Delhi International Arbitration Centre for appointment of Arbitrator to adjudicate the dispute.
	2. The award of the Arbitrator shall be final and binding on the parties. The Arbitrator may give interim award(s) and /or directions, as may be required.
	3. Subject to the aforesaid provision, the arbitration and conciliation act, 1996 and the rules made hereunder and any modification thereof from time to time being in force shall be deemed to apply to the Arbitration proceedings under this clause."
	(c) in the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration In accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

	(iv) The venue of the arbitration shall be the place from where the purchase order or contract is issued.
	(v) Notwithstanding any reference to arbitration herein,
	(a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
	(b) the Purchaser shall pay the Supplier any monies due the Supplier.
SCC 30	Supplier's Integrity
	The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
SCC 31	Integrity Pact
	The Integrity pact is not to be signed.
SCC 32	Termination for Default The Buyer may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Purchase Order / Contract in whole or part
	 a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Purchase Order, or within any extension thereof granted by the Buyer. b) If the Supplier fails to perform any other obligation(s) under the Purchase Order. c) If the Supplier, in the judgment of the Buyer has engaged in corrupt or fraudulent or collusive or coercive competing for or in executing the Purchase Order /Contact.
	In the event the Buyer terminates the contract in whole or in part, he may take recourse to any one or more of the following action:
	 a) The Performance Security is to be forfeited. b) The Buyer may procure, upon such terms and in such manner as it deems appropriate, stores similar to those undelivered, and the Supplier shall be liable for all available actions against it in terms of the contract. c) However, the Supplier shall continue to perform the contract to the extent not terminated.
SCC 33	Applicable Laws The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to the jurisdiction of Kolkata, India.



(Anjani Kumar Pandey) Stores & Purchase Officer

For & on behalf of the Council of Scientific & Industrial Research

अंजनी कुमार पाण्डेय/Anjani Kumar Pandey भण्डार एवं क्रय अधिकारी/Stores & Purchase Officer सीएसआईआर - केन्द्रीय कोच एवं सिरामिक अनुसंधान संस्थान CSIR - CENTRAL GLASS & CERAMIC RESEARCH INSTITUTE 196, राजा एस. सी. मल्लिक रोड / 196, Raja S. C. Mullick Road कोलकाता / Kolkata- 700 032

Enclosures:

- 1. Form of No Claim.
- 2. Acceptance Certificate Form
- 3. Performance Bank Guarantee

FORM OF NO CLAIM CERTIFICATE

(Oncompanyletterhead)

To,					
Name & Address of CSIR La	abs/Instts				
Attention:					
		NO CLAIM CER	ΓΙFICATE		
Sub: Contract Agreement no	oda	ated for the s	upply of		
settlement of all	any reservation what against afore said contains and the amounts parable to us and receive	due to us under the tsoever, certify that ventract agreement exayable to us, and had by us, and that we	for the abovementioned control of the second	supply of ontract agreeme we shall have no further declare uany description	unequivocally, that with this whatsoever, regarding the
					Yours faithfully,
			Officer	authorised to sig	Signatures of Supplier or n the contract documents on behalf of the supplier (company stamp)
Date:					
Place:					

ACCEPTANCE CERTIFICATE FORM

No				Dated:
M/s.				
		Sub:	Certificate of commissioning o	of equipment
01.			-	en received in good condition along with all the he same has been installed and commissioned.
(-)				
(a) (b)	Description	10 n of the equipment	Date	
(c)	Name of the	ne consignee		
(d)	Scheduled	I date of delivery of the co	onsignment to the Lab./Instts	
(e)			ent by the Lab./Instts	
(f) (g)		·	nstallation/commissioning	
(h)				
(i)	Names of	People Trained		
(j)			ation/commissioning	
(k) (l)			stts. level)/Instts. level	
	-			
Details	of accessor	ries/items not yet supplie	d and recoveries to be made on	that account:
	SI. No.		Description	Amount to be recovered
02.	The accep		e to our entire satisfaction. The	e supplier has fulfilled his contractual obligations
	The suppli	er has failed to fulfil his c	or contractual obligations with rega	rd to the following:
	(a)			
	(b)			
	(c)			
	(d)			
No. 3.	The amou	nt of recovery on account	of failure of the supplier to mee	et his contractual obligations is as indicated at Sr
For Su	pplier			For Purchaser
Signatı	ure			Signature
Name				Name
Design	ation			Designation
Name	of the firm			Name of the Lab/Instt
Data				Dato

PERFORMANCE SECURITY FORM MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To,				
WHEREAS				
pursuance of contract No	dated	lo sup	ply (description of goods and s	ervices)
(herein after called "the contract"). AND WHEREAS it has been stipulated	d by you in the said contract that	the cumplior chall f	furnish you with a bank guarant	too by a
scheduled commercial bank recognize			-	-
accordance with the contract:	su by you for the sum specified	therein as security	To compliance with its obliga	1110113 111
AND WHEREAS we have agreed to give	ve the supplier such a bank quarar	itee.		
NOW THEREFORE we hereby affirm (amount demand declaring the supplier to be in (amount of guarantee) as aforesaid, v specified therein.	that we are guarantors and resp of the guarantee in words and figured default under the contract and with	onsible to you, on ures), and we unde nout cavil or argume	rtake to pay you, upon your firsent, any sum or sums within the	t written limits of
We hereby waive the necessity of your	demanding the said debt from the	supplier before pre	senting us with the demand.	
We further agree that no change or ac any of the contract documents which m this guarantee and we hereby waive no	nay be made between you and the	supplier shall in any	·	
This guarantee shall be valid until the .	day of	, 20		
(Signature of the authorized officer of the	ne Bank)			
Name and designation of the officer				

Seal, Name & Address of the Issuing Branch of the Bank

Note: Whenever, the bidder chooses to submit the Performance Security in the form of Bank Guarantee, then he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.) an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.