



**TP CENTRAL ODISHA DISTRIBUTION LIMITED**  
(A Tata Power & Odisha Govt. joint venture)  
2nd Floor, IDCO Tower, Janpath Bhubaneswar, Odisha 751022

NIT No.: TPCODL/P&S/120/2020-21

## **OPEN TENDER NOTIFICATION**

**FOR**

**Rate Contract For Supply of Transformer  
Breather and Silica Gel**

**Tender Enquiry No.: TPCODL/P&S/120/20-21**

**Due Date for Bid Submission: 02-Nov-2020 [15:00 Hrs.]**

**TP Central Odisha Distribution Limited  
(A TATA Power and Odisha Government Joint Venture)  
Procurement & Stores Department,  
2<sup>nd</sup> Floor, IDCO Towers, Janpath, Bhubaneswar – 751022**



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## 1.0 Event Information

### 1.1. Scope of work

**Open Tenders are** invited from interested and eligible Bidders for-

S. No.	Description	EMD Amount (Rs.)	Tender Fee* (Rs.)
1.	One Year Rate Contract for Supply of Transformer Breather and Silica Gel.	6,00,000	5,000

*\*inclusive of GST*

### 1.2. Availability of Tender Documents

Non-transferable tender documents may be purchased by interested eligible bidders from address given below, on submission of written application to the under mentioned and upon payment of non-refundable Tender Fee.

**Chief (Procurement & Stores)**  
TP Central Odisha Distribution Limited  
2<sup>nd</sup> Floor, IDCO Towers, Janpath, Bhubaneswar – 751022

Tender documents may be downloaded by interested eligible bidders from TPCODL website [www.tpcentralodisha.com](http://www.tpcentralodisha.com) with effect from 16 October 2020. In the event of detailed tender documents are downloaded from TPCODL website, the Tender Fee shall be compulsorily submitted either online through NEFT/ RTGS or demand draft/ Banker's cheque drawn in favor of "TP Central Odisha Distribution Limited", payable at Bhubaneswar only. Any such bid submitted without this Fee shall be rejected.

Bidders are requested to visit TPCODL website [www.tpcentralodisha.com](http://www.tpcentralodisha.com) regularly for any modification/ clarification to the bid documents.

### 1.3. Calendar of Events

(a)	Date of sale/ availability of tender documents from TPCODL Website	From 16.10.2020 Onwards
	Date by which Interested and Eligible Bidder to pay Tender Fee and confirm participation.	22.10. 2020, 15:00 Hrs
(b)	Date & Time of Pre-Bid Meeting (if any)	Not Applicable
(c)	Last Date of receipt of pre-bid queries, if any	26.10.2020; 15:00 Hours
(d)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	28.10.2020
(e)	Last date and time of receipt of Bids	02.11.2020; 15:00 Hours
(f)	Date & Time of Opening of Technical Bids	Participating Bidders will get mail intimation from E-Tender portal (Ariba) when

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	their Technical Bids are opened
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**Note :-** In the event of last date specified for submission of bids and date of opening of bids is declared as a closed holiday for TPCODL's office, the last date of submission of bids and date of opening of bids will be the day following working day at appointed times.

#### **1.4 Mandatory documents required along with the Bid**

- 1.4.1 EMD of requisite value and validity
- 1.4.2 Tender Fee in case the tender is downloaded from website
- 1.4.3 Requisite Documents for compliance to Qualification Criteria mentioned in Clause 1.7.
- 1.4.4 Drawing, Type Test details along with a sample of each item as specified at Annexure I (as applicable)
- 1.4.5 Duly signed and stamped 'Schedule of Deviations' as per Annexure III on bidder's letter head.
- 1.4.6 Duly signed and stamped 'Schedule of Commercial Specifications' as per Annexure IV on bidder's letter head.
- 1.4.7 Proper authorization letter/ Power of Attorney to sign the tender on the behalf of bidder.
- 1.4.8 Copy of PAN, GST, PF and ESI Registration (In case any of these documents is not available with the bidder, same to be explicitly mentioned in the 'Schedule of Deviations')

***Please note that in absence of any of the above documents, the bid submitted by a bidder shall be liable for rejection.***

#### **1.5. Deviation from Tender**

Normally, the deviations to tender terms are not admissible and the bids with deviation are liable for rejection. Hence, the bidders are advised to refrain from taking any deviations on this Tender. Still in case of any deviations, all such deviations shall be set out by the Bidders, clause by clause in the 'Annexure III - Schedule of Deviations' and same shall be submitted as a part of the Technical Bid.

#### **1.6. Right of Acceptance/Rejection**

Bids are liable for rejection in absence of following documents:-

- i. EMD of requisite value and validity
- ii. Tender fee of requisite value
- iii. Price Bid as per the Price Schedule mentioned in Annexure I (BOQ)
- iv. Necessary documents against compliance to Qualification Requirements mentioned at Clause 1.7 of this Tender Document
- v. Filled in Schedule of Deviations as per Annexure III
- vi. Filled in Schedule of Commercial Specifications as per Annexure IV
- vii. Receipt of Bid within the due date and time

TPCODL reserves the right to accept/reject any or all the bids without assigning any reason thereof.

#### **1.7 Qualification Criteria**

Qualification Requirements attached with Tender Document



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### 1.8. Marketing Integrity

We have a fair and competitive marketplace. The rules for bidders are outlined in the General Condition of Contracts. Bidders must agree to these rules prior to participating. In addition to other remedies available, TPCODL reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the General Condition of Contracts. A bidder who violates the market place rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER/NIT

### 1.9. Supplier Confidentiality

All information contained in this tender is confidential and shall not be disclosed, published or advertised in any manner without written authorization from TPCODL. This includes all bidding information submitted to TPCODL. All tender documents remain the property of TPCODL and all suppliers are required to return these documents to TPCODL upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

### 2.0 Evaluation Criteria

- The bids will be evaluated technically on the compliance to tender terms and conditions
- The bids will be evaluated commercially on the overall all-inclusive lowest cost on line-item basis as calculated in Schedule of Items [Annexure I]. TPCODL however, reserves right to split the order line item wise and/or quantity wise among more than one Bidder. Hence all bidders are advised to quote their most competitive rates against each line item.
- Bidder has to mandatorily quote against each item of Schedule of Items [Annexure I]. Failing to do so, TPCODL may reject the bids.

**NOTE:** In case a new bidder is not registered with TPCODL, factory inspection and evaluation shall be carried out to ascertain bidder's manufacturing capability and quality procedures. However TPCODL reserves the right to carry out factory inspection and evaluation for any bidder prior to technical qualification.

In case a bidder is found as Disqualified in the factory evaluation, their bid shall not be evaluated any further and shall be summarily rejected. The decision of TPCODL shall be final and binding on the bidder in this regard.

**2.1 Price Variation Clause:** The prices shall remain firm during the entire contract period.

**2.2 Quantity variation Clause:** There will not be any guarantee on quantity of job. Job has to be carried out on as and when required basis order from TPCODL on the quantity to be specified in the order.

### 3.0 Submission of Bid Documents

#### 3.1 Bid Submission

Bidders are requested to submit their offer in line with this Tender document through e-tendering process. Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc. will happen only through TPCODL E-Tender system (Ariba). No e-mail or verbal correspondence will be responded.



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All communication will be done strictly with the bidder who have done the above step to participate in the Tender.

Bids shall be submitted in 3 (three) parts:

**FIRST PART: “EMD”** as applicable shall be submitted. The EMD shall be valid for 210 days from the due date of bid submission in the form of BG / Bank Draft / Bankers Pay Order (issued from a Scheduled Bank) online NEFT/ RTGS transfer favoring ‘TP Central Odisha Distribution Limited’ payable at Bhubaneswar. The EMD has to be strictly in the format as mentioned in General Condition of Contract, failing which it shall not be accepted by TPCODL and the bid as submitted shall be liable for rejection. A separate non-refundable tender fee of stipulated amount also needs to be transferred online through NEFT/ RTGS in case the tender document is downloaded from our website.

TPCODL Bank Details for transferring Tender Fee and EMD is as below:

**Account Name:** TP CENTRAL ODISHA DISTRIBUTION LIMITED  
**Bank Name:** SBI, IDCO Towers, Bhubaneswar  
**Bank Account No. :** 10835304915  
**IFSC Code:** SBIN0007891

**Note-** EMD is preferred in form of Bank Guarantee and to be delivered at the following address. However, in view of present situation if Bidder is finding it difficult to make and submit BG for EMD amount, they can do online transfer of EMD amount in the above mentioned Account and submit proof of the same as part of Bid Submission.

Please note that in such case, Tender Fee and EMD should be strictly 2 separate transactions.

Please note as return of EMD from Bank Account is non-standard practice the same may take more time than return of EMD BG.

**EMD Original Hard Copy shall be delivered at the following address in Envelope clearly indicating Tender Reference/ Enquiry Number, Name of Tender and Bidder Name**

**Chief (Procurement & Stores)**  
**TP Central Odisha Distribution Limited**  
**2<sup>nd</sup> Floor, IDCO Towers, Janapath, Bhubaneswar- 751022**

**SECOND PART: “TECHNICAL BID”** shall contain the following documents:

- a) Documentary evidence in support of qualifying criteria
- b) Technical literature/GTP/Type test report etc. (if applicable)
- c) Qualified manpower (if available)
- d) Testing facilities (if applicable)
- e) No Deviation Certificate as per the Annexure III – Schedule of Deviations
- f) Acceptance to Commercial Terms and Conditions viz. Delivery schedule/period, payment terms etc. as per the Annexure IV – Schedule of Commercial Specifications.
- g) Quality Assurance Plan/Inspection Test Plan for supply items (if applicable)

**The technical / un-priced commercial bid shall be properly indexed and is to be submitted in Soft Copy though E-Tender system of Tata Power. Hard Copy of Technical Bids need not be submitted.**

**Second Part has to be submitted through E-Tender System Only.**





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**THIRD PART: “PRICE BID”** shall contain only the price details and strictly in format as mentioned in Annexure I along with explicit break up of basic prices, Taxes & duties, Freight etc. In case any discrepancy is observed between the item description stated in Schedule of Items mentioned in the tender and the price bid submitted by the bidder, the item description as mentioned in the tender document (to the extent modified through Corrigendum issued if any) shall prevail.

**Price Bid is to be submitted in soft copy through TPCODL E-Tendering system (Ariba) only. Hard copy of Price Bid not be submitted.**

The EMD in the form of Bank Draft / BG / Bankers Pay Order shall be submitted in original hard copy and then placed in sealed envelope which shall be clearly marked as below:

EMD

**“Rate Contract for Supply of Transformer Breather and Silica Gel”**

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the TPCODL, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

**SIGNING OF BID DOCUMENTS:**

The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

The Bid being submitted must be signed by a person holding a Power of Attorney authorizing him to do so, certified copies of which shall be enclosed.

The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with bid.

A bid by a person who affixes to his signature the word ‘President’, ‘Managing Director’, ‘Secretary’, ‘Agent’ or other designation without disclosing his principal will be rejected.

The Bidder’s name stated on the Proposal shall be the exact legal name of the firm.



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### 3.2 Contact Information

All the bidders are requested to send their pre-bid queries (if any) against this tender through e-mail within the stipulated timelines. The consolidated reply to all the queries received shall be posted on TPCODL website by the stipulated timelines as detailed in calendar of events.

#### Communication Details:

Name: Abrar Khan  
Contact No.: 9029009468  
E-Mail ID: [abrarkhan@tatapower.com](mailto:abrarkhan@tatapower.com)

#### Senior General Manager (Procurement):

Name: Mr. Deba Prasad Dash  
Contact No.: 9438297571  
E-Mail ID: [debaprasad.das@tpcentralodisha.com](mailto:debaprasad.das@tpcentralodisha.com)

### 3.3 Bid Prices

Bidders shall quote for the entire Scope of Supply/ work with a break up of prices for individual items and Taxes & duties. The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination at various sites of TPCODL. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

#### **Applicable GST to be specified clearly.**

The quantity break up shown else-where other than Price Schedule is tentative. The bidder shall ascertain himself regarding material required for completeness of the entire work. Any items not indicated in the price schedule but which are required to complete the job as per the Technical Specifications/ Scope of Work/ SLA mentioned in the tender, shall be deemed to be included in prices quoted.

### 3.4 Bid Currencies

Prices shall be quoted in Indian Rupees Only.

### 3.5 Period of Validity of Bids

Bids shall remain valid for 180 days from the due date of submission of the bid.

Notwithstanding clause above, the TPCODL may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and responses thereto shall be made in writing.

### 3.6 Alternative Bids

Bidders shall submit Bids, which comply with the Bidding documents. Alternative bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the bidding documents.

### 3.7 Modifications and Withdrawal of Bids

The bidder is not allowed to modify or withdraw its bid after the Bid's submission. The EMD as submitted along with the bid shall be liable for forfeiture in such event.





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### **3.8 Earnest Money Deposit (EMD)**

The bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect TPCODL against the risk of bidder's conduct which would warrant forfeiture.

The EMD shall be denominated in any of the following form:

- Banker's Cheque/ Demand Draft/ Pay order drawn in favor of TP Central Odisha Distribution Limited payable at Bhubaneswar.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 210 days after due date of submission.

#### ***The EMD shall be forfeited in case:***

- a) The bidder withdraws its bid during the period of specified bid validity.

**Or**

- b) The successful Bidder does not
- a) accept the Purchase Order, or
  - b) furnish the required Performance Security Bank Guarantee

## **4 Bid Opening & Evaluation process**

### **4.1. Process to be confidential**

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the TPCODL's processing of Bids or award decisions may result in rejection of the Bidder's Bid.

### **4.2. Technical Bid Opening**

Bids will be opened at TPCODL Office, Bhubaneswar. All tender bids shall be opened internally by TPCODL. Presence of any bidder will not be allowed during bid opening process. Technical bid must not contain any cost information whatsoever.

First the envelope marked "EMD" will be opened. Bids without EMD/cost of tender (if applicable) of required amount/ validity in prescribed format, shall be rejected.

Next, the technical bid of the bidders who have furnished the requisite EMD will be opened, one by one.

### **4.3. Preliminary Examination of Bids/Responsiveness**

TPCODL will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. TPCODL may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.



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Prior to the detailed evaluation, TPCODL will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

Bid determined as not substantially responsive will be rejected by the TPCODL and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

#### **4.4. Techno Commercial Clarifications**

Bidders need to ensure that the bids submitted by them are complete in all respects. To assist in the examination, evaluation and comparison of Bids, TPCODL may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the TPCODL specifications and attempt will be made to bring all bids on a common footing. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted owing to any clarifications sought by TPCODL.

#### **4.5. Price Bid Opening**

Price bids will be opened internally without the presence of any bidder representative. The EMD of the bidder withdrawing or substantially altering his offer at any stage after the technical bid opening will be forfeited at the sole discretion of TPCODL without any further correspondence in this regard.

#### **4.6. Reverse Auctions**

TPCODL reserves the right to conduct the reverse auction (instead of public opening of price bids) for the products/ services being asked for in the tender. The terms and conditions for such reverse auction events shall be as per the Acceptance Form attached as Annexure VI of this document. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form attached as Annexure VI as a token of acceptance for the same.

### **5 Award Decision**

TPCODL will award the contract to the successful bidder whose bid has been determined to be the lowest-evaluated responsive bid as per the Evaluation Criterion mentioned at Clause 2.0. The Cost for the said calculation shall be taken as the all-inclusive cost quoted by bidder in Annexure I (Schedule of Items) subject to any corrections required in line with Clause 3.2 above. The decision to place purchase order/LOI solely depends on TPCODL on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that TPCODL may deem relevant.

TPCODL reserves the rights to award contract to one or more bidders so as to meet the delivery requirement or nullify award decision without assigning any reason thereof.

In case any supplier is found unsatisfactory during delivery process, the award will be cancelled and TPCODL reserves right to award contract to other suppliers who are found fit.

### **6 Order of Preference/Contradiction**

In case of contradiction in any part of various documents in tender, following shall prevail in order of preference:

1. Schedule of Items (Annexure I)
2. Post Award Contract Administration (Clause 7.0)
3. Submission of Bid Documents (Clause 3.0)
4. Scope of Work and SLA (Annexure VII)



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5. Technical Specifications (Annexure II)
6. Acceptance Form for Participation in Reverse Auction (Annexure VI)
7. General Conditions of Contract (Annexure VIII)

## **7 Post Award Contract Administration**

### **7.1. Special Conditions of Contract**

- After finalization of tender, Order shall be issued to successful bidder. Prices shall remain firm.
- Business Associate (BA) shall submit applicable Performance Bank Guarantee as per GCC within 30 days of issuance of order. PBG applicable shall be 10% of Order Value. PBG submitted, shall be released after completion of applicable guarantee period plus one month.
- Guarantee applicable shall be as per technical specifications.
- BA shall submit GTP / Drawing within 2 weeks from issuance of contract for approval from TPCODL. In case BA does not get necessary approvals of drawing/GTP within mentioned / mutually agreed timelines, then TPCODL reserve the right to cancel issued contract and also reserve the right to forfeit EMD / PBG.
- Any change in statutory taxes, duties and levies during the contract period shall be borne by TPCODL.
- All the terms and conditions of TPCODL General Conditions of Contract shall be applicable.

### **7.2 Drawing Submission and Approval**

The relevant drawings and GTPs need to be submitted as per special condition of contract mentioned in point no. 7.1

### **7.3 Delivery Timelines**

As per attached scope of work.

### **7.4 Warranty Period**

Applicable as per technical specification attached separately with this tender

### **7.5 Payment Terms**

On completion of the installation work of the materials in good condition and certification of acceptance by TPCODL, BA shall submit the Bills / Invoices in original in the name of TP Central Odisha Distribution Limited to Invoice Desk.

The payment shall be released within 60 days from the date of submission of certified bills/ invoices.

### **7.6 Climate Change**

Significant quantities of waste are generated during the execution of project and an integrated approach for effective handling, storage, transportation and disposal of the same shall be adopted. This would ensure the minimization of environmental and social impact in order to combat the climate change. Please refer attached Environment Policy and Sustainability Policy, Annexure-XI for more details.



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### **7.7 Ethics**

TPCODL is an ethical organization and as a policy TPCODL lays emphasis on ethical practices across its entire domain. Bidder should ensure that they should abide by all the ethical norms and in no form either directly or indirectly be involved in unethical practice.

TPCODL work practices are governed by the Tata Code of Conduct which emphasizes on the following:

- We shall select our suppliers and service providers fairly and transparently.
- We seek to work with suppliers and service providers who can demonstrate that they share similar values. We expect them to adopt ethical standards comparable to our own.
- Our suppliers and service providers shall represent our company only with duly authorized written permission from our company. They are expected to abide by the Code in their interactions with, and on behalf of us, including respecting the confidentiality of information shared with them.
- We shall ensure that any gifts or hospitality received from, or given to, our suppliers or service providers comply with our company's gifts and hospitality policy.
- We respect our obligations on the use of third party intellectual property and data.

Bidder is advised to refer Tata Code of Conduct (TCOC) attached at Annexure X for more information.

Any ethical concerns with respect to this tender can be reported to the following e-mail ID:

[purchase@cescoorissa.com](mailto:purchase@cescoorissa.com) / [pkjain@tatapower.com](mailto:pkjain@tatapower.com)

### **8 Specification and standards**

As per Annexure.

### **9 General Condition of Contract**

Any condition not mentioned above shall be applicable as per GCC attached along with this tender.

### **10 Safety**

All jobs are this tender have to be executed strictly in compliance to the Safety terms and Conditions of TP Central Odisha Distribution Limited. Please refer attached Safety terms and conditions, Annexure-IX, for details. Violation of Safety norms will result in Penalty as mentioned in the above document.



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**ANNEXURE I**  
**Schedule for Items (Price Bid)**

Sr.No.	Activity	Unit	Qty (Q)	Unit Rate (Rs.) (A)	Taxes (Rs.) (B)	Total All inclusive unit rate (C = A+B)	Total Amt. (Rs.) (Q x C)
1	TRANSFORMER BREATHER 250 K.V.A.	EA	10,000				
2	TRANSFORMER BREATHER 500 KVA	EA	10,000				
3	TRANSFORMER BREATHER 1.600 MVA	EA	7,000				
4	SILICA GEL	KG	20,000				
5	TRANSFORMER BREATHER 25-100 KVA	EA	20,000				
		<b>Total</b>					

**NOTE:**

- The quantities as mentioned above are indicative and for evaluation purpose only. Actual quantities may vary as per requirements during contract period & TPCODL shall place Release Orders (RO's) accordingly, as and when required.
- The overall period of the rate contract shall be for a period of 1 years and prices shall be firm till the validity of contract. Release order shall be issued as per requirement of TPCODL.
- The bids will be evaluated commercially on the overall lowest cost for each line item.
- The unit price with GST , is landed price FOR TPCODL Bhubaneswar / Cuttack Locations. Exact delivery location shall be specified in the Release Order.

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2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

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- The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. Mentioning “extra/inclusive” in any of the column may lead for rejection of the price bid.
- No cutting/ overwriting in the prices is permissible. No cutting/ overwriting in the prices is permissible.
- The bidders are advised to quote prices strictly in the format attached.

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**ANNEXURE II**  
**Technical Specifications**

**Attached:**

1. Technical Specifications

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**ANNEXURE III**

**Schedule of Deviations**

*Bidders are advised to refrain from taking any deviations on this TENDER. Still in case of any deviations, all such deviations from this tender document shall be set out by the Bidders, Clause by Clause in this schedule and submit the same as a part of the **Technical Bid**.*

***Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the TPCODL's specifications:***

S. No.	Clause No.	Tender Clause Details	Details of deviation with justifications

***By signing this document we hereby withdraw all the deviations whatsoever taken anywhere in this bid document and comply to all the terms and conditions, technical specifications, scope of work etc. as mentioned in the standard document except those as mentioned above.***

**Seal of the Bidder:**

**Signature:**

**Name:**



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**ANNEXURE IV**

**Schedule of Commercial Specifications**

***(The bidders shall mandatorily fill in this schedule and enclose it with the offer Part I: Technical Bid. In the absence of all these details, the offer may not be acceptable.)***

<b>S. No.</b>	<b>Particulars</b>	<b>Remarks</b>
1.	Prices firm or subject to variation (If variable indicate the price variation clause with the ceiling if applicable)	Firm / Variable
1a.	If variable price variation on clause given	Yes / No
1b.	Ceiling	----- %
1c.	Inclusive of GST	Yes / No (If Yes, indicate % rate)
1d.	Inclusive of transit insurance	Yes / No
2.	Delivery	Weeks / months
3.	Guarantee clause acceptable	Yes / No
4.	Terms of payment acceptable	Yes / No
5.	Performance Bank Guarantee acceptable	Yes / No
6.	Liquidated damages clause acceptable	Yes / No
7.	Validity (180 days) (From the date of opening of bid)	Yes / No
8.	Inspection during stage of manufacture	Yes / No
9.	Rebate for increased quantity	Yes / No (If Yes, indicate value)
10.	Change in price for reduced quantity	Yes / No (If Yes, indicate value)
11.	Covered under Small Scale and Ancillary Industrial Undertaking Act 1992	Yes / No (If Yes, indicate, SSI Reg'n No.)

**Seal of the Bidder:**

**Signature:**

**Name:**



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**ANNEXURE V**

**Checklist of all the documents to be submitted with the Bid**

Bidder has to mandatorily fill in the checklist mentioned below:-

S. No.	Documents attached	Yes / No / Not Applicable
1	EMD of required value	
2	Tender Fee as mentioned in this tender	
3	Signed copy of this tender as an unconditional acceptance	
5	Duly filled schedule of commercial specifications (Annexure IV)	
6	Sheet of commercial/technical deviation if any (Annexure III)	
7	Balance sheet for the last completed three financial years; mandatorily enclosing Profit & loss account statement	
8	Acknowledgement for Testing facilities if available (duly mentioned on bidder letter head)	
9	List of Machine/tools with updated calibration certificates if applicable	
10	Details of order copy (duly mentioned on bidder letter head)	
11	Order copies as a proof of quantity executed	
12	Details of Type Tests if applicable (duly mentioned on bidder letter head)	
13	All the relevant Type test certificates as per relevant IS/IEC (CPRI/ERDA/other certified agency) if applicable	
14	Project/supply Completion certificates	
15	Performance certificates	
16	Client Testimonial/Performance Certificates	
17	Credit rating/solvency certificate	
18	Undertaking regarding non blacklisting (On company letter head)	
19	List of trained/untrained Manpower	

**Seal of the Bidder:**

**Signature:**

**Name**



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### **ANNEXURE VI**

#### **ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT**

*(To be signed and stamped by the bidder)*

In a bid to make our entire procurement process more fair and transparent, TPCODL intends to use the reverse auctions as an integral part of the entire tendering process. All the bidders who are found as technically qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

**The following terms and conditions are deemed as accepted by the bidder on participation in the bid event:**

1. TPCODL shall provide the user id and password to the authorized representative of the bidder. *(Authorization Letter in lieu of the same shall be submitted along with the signed and stamped Acceptance Form).*
2. TPCODL will make every effort to make the bid process transparent. However, the award decision by TPCODL would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPCODL, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. In case of bidding through Internet medium, bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, internet response issues, software or hardware hangs, power failure or any other reason shall not be the responsibility of TPCODL.
6. In case of intranet medium, TPCODL shall provide the infrastructure to bidders. Further, TPCODL has sole discretion to extend or restart the auction event in case of any glitches in infrastructure observed which has restricted the bidders to submit the bids to ensure fair & transparent competitive bidding. In case of an auction event is restarted, the best bid as already available in the system shall become the start price for the new auction.
7. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be out-rightly rejected by TPCODL.
8. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
9. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at TPCODL site.
10. The prices submitted by a bidder during the auction event shall be binding on the bidder.
11. No requests for time extension of auction event shall be considered by TPCODL.
12. The original price bids of the bidders shall be reduced on pro-rata basis against each line item based on the final all-inclusive prices offered during conclusion of the auction event for arriving at Contract amount.

**Signature & Seal of the Bidder**



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**ANNEXURE VII**  
**SCOPE OF WORK**

Attached with Tender Document

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**ANNEXURE VIII**  
**GENERAL CONDITIONS OF CONTRACT**

**Attached:** General Conditions of Contract for Supply Orders

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## **ANNEXURE IX**

### **SAFETY POLICY AND SAFETY TERMS AND CONDITIONS**

#### **Definitions**

**Order Manager:** Order Manager is the Tata Power representative, who has the ownership of the given job under the signed contract.

**Service Provider/Contractor/Vendor:** An individual or an organization that provides services to Tata Power under a signed contract.

**Site Safety Management Plan:** It is the safety plan agreed between Contractor / Service provider and Tata Power. It will contain the entire job specific safety requirement and will be signed by the service provider.

**High Risk Job:** Any job which has significant health and safety risk associated to it. The list of high risk jobs has been identified at Tata Power level.

**Emergency:** A serious, unexpected, business discontinuity and often dangerous situation resulting into loss of revenue / property and requiring immediate action.

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## 1. Safety Policy



### HEALTH AND SAFETY POLICY

Tata Power is committed to provide safe and healthy working environment for the prevention of work related injuries and ill-health. Safety is one of our core values. We strive to be a leader in safety excellence in the global power and energy business. In pursuit of this, we are committed to the following:

- Maintain and continually improve our management systems to eliminate hazards and reduce health & safety risks to all our stakeholders.
- Incorporate appropriate health & safety criteria into business decisions for selection of plant and technology, performance appraisal of individuals and appointments in key positions.
- Comply and endeavour to exceed all applicable health & safety legal and other requirements
- Integrate health & safety procedures and best practices into every operational activity with assigned line-functional responsibilities at all levels.
- Involve our employees and business associates in maintaining a safe and healthy work environment through consultation and participation
- Inculcate safety culture by visible leadership and empowerment.
- Ensure required competency to enable our employees and business associates for working safely.
- Promptly report incidents, investigate, share crucial learnings and prevent recurrences.
- Influence our business associates in enhancing their health and safety standards and align with Tata Power's health & safety codes and practices.
- Set safety & health metrics as indicators of excellence, monitor progress and continually improve health and safety performance.

We shall ensure the availability of appropriate resources at all times to fully implement and communicate this policy to all stakeholders by suitable means and periodically review its relevance in continuously changing business environment.

(Praveer Sinha)  
CEO & Managing Director

Date: 11<sup>th</sup> March, 2019  
**TATA POWER**  
Lighting up Lives!





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## **2. Safety Organization & Responsibilities**

### **2.1 Contractor Site Management and Supervision**

Each Contractor will be responsible for fulfilling all statutory and safety requirements as per the laws of the land and not limited to Factory Act, Electricity Act, Electricity Rules and Regulations, Shop and Establishment Act etc.

Each Contractor shall provide at least one competent full time safety supervisor for workforce of less than 100 numbers. When workforce ranges from 100 to 1000, the contractor has to provide at least one qualified safety officer and safety supervisors (reporting to the safety officer) in the ratio 1:100. For every 1000 addition in workforce, the contractor has to add 1 safety officer. The Tata Power Project Safety Manager will review and approve the appointment of all safety supervisors. Contractor/Subcontractor safety supervisors/officers will work with Tata Power Safety Managers and align themselves with Tata Power safety requirements.

Each Contractors'/Subcontractors' Site Manager is responsible, and will be held accountable, for the safety of their sub-contractors and workforce and for ensuring that all equipment, materials, tools and procedures remain in safety compliance at job site, including:

- Holding officer/supervisors accountable for safety and actively promote safe work performance.
- Participate in and cooperate with all safety program requirements to be implemented in order to meet Tata Power safety objectives.
- Ensure timely reporting of safety incidents, near misses, unsafe acts and conditions.
- Identify the training needs of its employees and maintain all safety training documents.
- Provide safety performance report at an agreed frequency.
- Stopping of unsafe work (acts and/or conditions) immediately, until corrective action be taken.

### **2.2 Contractor Supervisors and General Staff**

Contractors' site supervisors and general staff members in charge of job site functions such as field engineering, warehousing, purchasing, cost and scheduling, etc. are responsible for the safe performance of the work of those they supervise. They must set an example for their fellow employees by being familiar with applicable sections of the Site Safety program and ensuring that all site activities are performed with SAFETY as the primary objective.

Each site supervisor is responsible and will be held accountable for identifying, analyzing and eliminating or controlling all hazards through implementation of an aggressive, pro-active Health, Safety and Environmental Program from project inception through project completion. Each supervisor will proactively participate in the SHE program by observing, correcting unsafe acts, and recording these observations.

### **2.3 Contractor Workforce**



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Contractor workforce must make safety a part of their job by following safety rules and regulations and by using all safeguards and safety equipment. They must take an active part in the Site Safety program to ensure their own safety and injury-free employment as well as being alert to unsafe practices of their fellow employees.

Every member of the workforce is expected to report for work without influence of any Drug/Alcohol. All employees are expected to report any hazardous conditions practices and behaviors in their work areas and correct where ever possible. Workforce is responsible for active participation in safety and health programs, suggestion systems, trainings and in immediate reporting of all injuries, any unsafe practices, conditions or incidents to their supervisors.

#### 2.4 Vendor/Contractor

Vendors/Contractor shall at all times comply with, and ensure that their workforce comply with all site safety rules and regulations. Specifically, with applicable provisions of the Tata Power Site Safety Management Plan, and all statutory safety rules and regulations.

### 3. Site Safety Rules and Procedures

The work in the safest possible manner can only happen when it has been carefully planned and all applicable procedures are followed. The Tata Power Safety Procedures are derived from Tata Power best practices and the applicable Government acts regulations. In each case, the most stringent regulation is used.

Following is the list of Tata Power's critical Safety Rules and Procedures. Contractor shall refer to approved Rules and Procedures for detailed requirements and ensure conformance.

#### 3.1 Lock Out and Tag Out Procedure

This procedure is intended to be used for the protection of Personnel while servicing or performing maintenance on equipment / pipeline / vessel / process systems. This is a general procedure that shall be used as the minimum requirements for isolation of equipment, pipelines, machines, system from all possible sources of hazardous energy and / or material such as Steam, Hot Water, Compressed Air, any other process fluid / chemical energy/Mechanical energy or Electrical energy. For complete procedure kindly refer Procedure Document No. TPSMS/CSP/LOTO/001 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### 3.2 Excavation Safety (Shoring and Sloping) Procedure

This procedure is developed to cover the safe practices required for shoring and sloping in excavation and trenching jobs. This procedure is developed to establish mandatory requirements for practices to protect personnel, property and equipment from hazards associated with above activities. For complete procedure kindly refer Procedure Document No TPSMS/CSP/EXS/002 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### 3.3 Confined Space Entry Procedure



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This procedure outlines the steps required to perform the confined space entry and to protect personnel from the hazards of entering and conducting operations in confined spaces. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/CSE/003 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### 3.4 Working at Height Procedure

This procedure describes the rules and procedures to protect employees from the hazards of working at heights.

This procedure is developed to cover the safe practices required for Working at Heights. This procedure is developed to establish mandatory requirements for practices to protect personnel from hazards associated in this area. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/WAH/004 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### 3.5 Heavy Equipment Movement Safety Procedure

Heavy equipment lifting and movement is an activity involving loading, unloading, storage and movement from one place to another including lifting and erection or repairing of equipment with cranes or hoists. Material, machinery and equipment handling operations are being carried out by large capacity cranes and hoists, which make the job safer and faster. This procedure addresses the hazards and precautions associated with such equipment and their use. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/HEMS/005 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### 3.6 Mobile Crane Safety Procedure

Mobile cranes are responsible for many incidents, injuries. Falling loads from mobile cranes pose a severe hazard to operators and nearby workers and property. Many types of cranes, hoists, and rigging devices are used for lifting and moving materials. To maintain safe, appropriate standards has to be adhered to and only qualified and licensed individuals shall operate these devices. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/MCS/006 REV 01.

#### 3.7 Scaffold Safety Procedure

This procedure is developed to provide information on the safe erection, use, dismantling and maintenance of access scaffolding in the workplace. It is developed to establish mandatory requirements for practices to protect personnel from hazards associated with erection, use and dismantling of scaffolds. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/SCAF/007 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

#### 3.8 Electrical Safety Procedure

The objective of these standards is to specify minimum mandatory requirements and advisory guidance for identifying and controlling hazards to ensure 'Zero Harm' with regard to operation maintenance and





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testing of electrical equipment. For complete procedure kindly refer Procedure Document No-TPSMS/CSP/ELEC/010 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### 3.9 Job Safety Analysis (JSA) Procedure

This objective of this procedure is to have a task based risk assessment process in place that identifies, evaluates and controls the risks associated with work activities, and as a result, prevents those involved in the task or those potentially affected by the task, from being harmed. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/JSA/009 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### 3.10 Fire Safety Management Procedure

Objective of This standard is to specify the minimum mandatory requirements and advisory guidelines to ensure prevention of fire related incidents and managing / controlling their impacts if they do occur. For complete procedure kindly refer Procedure Document No- TPSMS/CSP/FSM/011 REV 01

### 3.11 Permit To Work Procedure

Given the inherent hazards of the power generation and distribution industry, a significant number of TATA POWER operations and installations are critical. Work Permit (WP) System is an essential element in controlling the workplace risks in an effective manner. For complete procedure kindly refer Procedure Document No –TPSMS/CSP/PTW/008 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### 3.12 Lift (Elevator) Safety Procedure

To provide safe operating procedure for taking control of lift car before entering and existing the pit of OTIS make elevators. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/LIFT/001 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### 3.13 Working on conveyor belt Procedure

This procedure is developed to cover the safe practices required for Working on live equipment and to protect personnel from hazards associated with it. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/CONV/002 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### 3.14 Handling Hazardous Materials Procedure

This Procedure is developed to provide procedure for recycling and / or safe disposal of used / waste batteries in compliance with all legislation. For complete procedure kindly refer Procedure Document No-TPSMS/GSP/HAZM/003 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### 3.15 Material Handling and Storage Procedure



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The purpose of this document is to provide procedures to assist the safe handling of materials (manual handling and mechanical handling). For complete procedure kindly refer Procedure Document No – TPSMS/GSP/MATL/004 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

### 3.16 Contractor Safety Management Procedure

The purpose of this document is to engage with contractors in a way to create safe work environment for everyone working for Tata Power. For complete procedure kindly refer Procedure Document No – TPSMS/GSP/CSM/015 REV 01 available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com))

The above procedures will be updated periodically and the updated version of the procedures as well as any additional critical procedure will be available on official website of Tata Power ([www.tatapower.com](http://www.tatapower.com)) for your reference.

## 4. Training and Capability Building

Safety Training and capability building of workforce is a major component of safety management program. All training required must be provided and documented as specified by Tata Power and Indian Regulations. Tata Power Safety Manager will audit contractors training and related documentation to assure its adequacy.

### 4.1 Tata Power Site Safety Orientation

All Tata Power contractor and subcontractor workforce is required to attend Tata Power Site Safety Orientation Training to receive a Safety Training Card, which is required to obtain a Gate Pass to the site, prior to entry.

This Safety Orientation Course will be for duration of minimum half day. The information provided during the orientation will include, but is not limited to following:

- Job rules, personal safety and conduct
- Hazards reporting
- Reporting of injuries
- Emergency procedures
- Safety Activities and Program including disciplinary measure and incentives.
- Critical safety procedure relevant to the job

### 4.2 Capability Building

Appropriate training such as L1, L2 & L3 is given to ensure that a jobholder, either supervisor or worker, is competent to do his/her job safely. The skill training is provided through TPSDI and other agencies authorized by Tata Power on the list of 15 procedures mentioned under safety procedure.

Contractor shall ensure that concerned workmen are provided with adequate training before he/she is allowed to execute the work.



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An evaluation test will be conducted after the completion of the training. Those workmen employee who meet the minimum required competency will be provided with Gold Card which is valid for 3 years, post which the workmen has to reappear for the assessment. If the workman is not able to qualify the assessment, he/she will be given 3 additional attempts to clear in 3 month timeframe failing which he/she will not be allowed to work on high risk jobs.

**5. Pre-Employment and Periodic Medical check up**

Contractor shall arrange to conduct a pre-employment and periodic medical check-up for its entire workforce by Tata Power medical officer or Tata Power authorized medical officer. The contractor shall be able to produce the certificate prior to the employment. The contractor shall also organize to conduct periodical medical checkup (six monthly) for the following category of employees:

- Drivers (Check for Vision & Hearing)
- Equipment Operators (Check for Vision & Hearing)
- Workforce working at Height (Check for Vision, Hearing, Vertigo & Height Phobia)
- Workforce Handling the hazardous substances (Coal, ash and chemicals)
- Workforce in high decibel area (> 90 Decibel, Check for Hearing)
- Workforce, working in specific areas requiring specific medical attention should conduct the medical test as laid down in the respective Site Safety Management Plan.

**6. Safety Performance Evaluation and Penalties**

A certain percentage of the bill value will be retained against every running bill as safety performance retention. The amount will be released with the last invoice based on "Safety Performance score" attached in CSM-F-3 of CSM procedure. The amount is based on following table

Contract Value	Retention Amount (%)
Upto 10 Lakhs	2.5
10 – 50 lakhs	2
0.5 to 10 Cr	1.5
>10 Cr	1

- Safety performance Score will be monitored by the Order Manager every month.
- For the contract value of more than Rs 1 Cr or contract duration more than 12 months, the retention amount shall be released half yearly based on safety performance. For all remaining contracts, the retention amount will be released with the final bill.
- In case of job stoppage due to safety violations/ unsafe observations at the site, no time extension shall be given to the contractor, if such delays are attributable to contractor.



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- In case of fatality, limb loss or loss of property, vendor has to pay for liability, legal, statutory and additional mutually agreed settlement charges imposed by the appointed committee. This charge is over and above the retention amount.
- The committee will finalize an amount between 5 -50 lakhs based on factors such as advise by statutory authorities, contract value and impact of accident etc.
- Safety performance bonus 1% (limiting to 50 lakhs) of the invoice value will be considered at the end of the job if the contractual safety performance score is 100%.
- During the progress of the work, concerned Supervisor/Engineer will visit and inspect the work site regularly and evaluate the safety performance of the contractor based on matrix attached herewith.
- Order Manager, divisional chief and SBU head have the authority to terminate the contract in case of three consecutive serious violations.

**7. Safety Performance Evaluation - CSM-F-3**

S. No.	Lead Indicators	Unit Of measurement	Target	Weightage
1	% of Employee certified in TPSPDI/Authorized agency	%	50	10
2	CFSA score (Annexure 6.1)	Average Severity of Violations	1.49	20
3	Monthly inspection completed for Critical Equipments, lifting Tools & Tackles and hand tools used at site	%	80	5
4	Condition of tools, tackles and equipments	%	100	15
<b>Lag Indicators</b>				
1	Number of Fatalities	No.	0	30
2	Number of Lost work day case (LWDC)	No.	0	10
3	Man-days Lost	No.	0	10

In addition to above evaluation criteria, for specific violations penalty shall be imposed on the contractors under following circumstances:



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Sr No	Description of violation	Severity	Penalty /
1.	Working without Permit	5	5000/-
2.	Untrained (TPSDI) worker on high-risk jobs.	5	5000/-
3.	Unhygienic/Bad condition of PPE	2	250/-
4.	Not following Tata Power Procedure & Standard	4	2000/-
5.	Unsafe Act/Condition of Severity 4	4	2000/-
6.	Unsafe Act/Condition of Severity 5	5	5000/-
7.	No Earthing of Electrical equipment	5	5000/-
8.	Damaged welding cable	5	5000/-
9.	Violation of Positive Isolation Procedure ( LOTO Not followed )	5	5000/-
10.	ELCB of more than 30 mA/ELCB not working	5	5000/-
11.	On/Off switch of welding m/c not working	5	5000/-
12.	Electric cable tied with metal wire	5	5000/-
13.	Leakage found DA hose / cylinder	5	5000/-
14.	Use of LPG	5	5000/-
15.	Use of Three-wheeler at the work site.	5	5000/-
16.	Starting the job without Tool Box Talk	5	5000/-
17.	Spatter falling on DA hose / Gas-line/ pathways / Equipment	5	5000/-
18.	No safety latch in crane hook	5	5000/-
19.	Load raised or swung over people or occupied areas of buildings	5	5000/-
20.	Persons standing in swing area of construction equipments.	5	5000/-
21.	Using damaged slings.	5	5000/-
22.	Unstable scaffolding/non standard Scaffolding in use	5	5000/-
23.	Handrails and mid-rails are missing	5	5000/-
24.	Safety Harness not anchored with lifeline/fixed structure	5	5000/-
25.	Fall arrestor not provided/ Not being used.	5	5000/-
26.	Double life line not used for working at height	5	5000/-
27.	No rubber mat in DB room	4	2000/-
28.	Water found accumulated in DB room/near welding machine.	4	2000/-
29.	Inserting electric cables into socket, without using plug.	4	2000/-
30.	Use of damaged electrical cable/two core cables.	4	2000/-
31.	Inflammable material found in D.B Room./ welding areas.	4	2000/-
32.	Loose material falling into excavated pit	4	2000/-
33.	Water logging into excavated pit	4	2000/-
34.	No / inadequate Barricade	4	2000/-



**TP CENTRAL ODISHA DISTRIBUTION LIMITED**  
(A Tata Power & Odisha Govt. joint venture)  
2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/120/2020-21

Sr No	Description of violation	Severity	Penalty /
35.	Undercut / cave-in found on sides of excavated pits	4	2000/
36.	Grinding wheel/ Coupling/ Piling winch/other rotating parts without guard	4	2000/
37.	The HMV/Mobile Crane operator does not having a valid HMV driving license.	4	2000/
38.	The loading area is not leveled properly.	4	2000/
39.	Ladder not anchored at top	4	2000/
40.	Opening found in working platform of scaffolding/floor	4	2000/
41.	Inadequate illumination at the working area	4	2000/
42.	Loose material lying on Gantry ,platform	4	2000/
43.	Cleaning body with Compressed Air.	3	500/-
44.	Gas Cylinders using without cap.	3	500/
45.	Gas Cylinders stored without securing	3	500/
46.	Bringing inside any other chemicals, apart from approved by Safety dept.	3	500/
47.	Using drum for sitting or accessing height.	3	500/
48.	Misusing emergency facilities like fire hydrant line/ hose box/ spray system/ eye wash etc.	3	500/
49.	No provision of Safety net where falling materials or tools may occurs	3	500/
50.	Taking electrical supply from non designated outlet (other than socket).	3	500/
51.	Restricted gangways due to unwanted materials.	3	500/
52.	Not reporting incident.	3	500/
53.	Entering into restricted area like switch yard/ hazardous storage etc.	3	500/
54.	Work without supervision	3	500/
55.	Parking of vehicle without applying wheel choke at right front-front and left rear-rear wheels other than passengers cars.	3	500/
56.	Vehicle without helper or co-driver.	3	500/
57.	Not wearing florescent safety jacket at site.	3	500/
58.	People travelling in load body of vehicle.	3	500/
59.	Parking of vehicles at non designated area.	3	500/
60.	Shifting heavy materials without guide ropes.	3	500/
61.	Using other than 24V lamp inside the confined space/Use of other than 24V lamps.	3	500/
62.	Angular/ starch loading/ lifting with Crane or hoist.	3	500/
63.	By passing the limit switch/ Safety Interlock.	3	500/
64.	Housekeeping activities on road without proper barricade.	3	500/





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Sr No	Description of violation	Severity	Penalty /
65.	Trying to board or alit from running vehicle.	3	500/-
66.	Cylinder Valves of Gas cylinders not closed when not in use.	3	500/-
67.	Flash-back arrester not used.	3	500/-
68.	Trolley wheel found damaged.	3	500/-
69.	Guy ropes of required length on both sides of object are not used during movement with load.	3	500/-
70.	Scotch block/wedge not provide when the vehicle is parked.	3	500/-
71.	Suitable Trolley not provided to hold the cylinders.	3	500/-
72.	Locked First Aid box	3	500/-
73.	Caution boards, danger signs (luminescent /red) along with emergency contact number are not found displayed.	3	500/-
74.	Person found jumping barricading tape	3	500/-
75.	Stacking of pipes, pile casing , drums without chock blocks/wedges	3	500/-
76.	The terrain on which Heavy Equipment/Machinery moves is not reasonably hard.	3	500/-
77.	Without Safety Helmet at working sites	4	250/-
78.	Without Crash Helmet (on bikes)	4	500/-
79.	Without Full body double lanyard Safety Harness (for work at height)	5	5000/-
80.	Without Hand gloves - Material Handling, Welding, Cutting,	4	100/-
81.	Without Safety goggles/ face shield - Welding/Cutting /Grinding	5	5000/-
82.	Handling Chemical without PVC Apron	5	5000/-
83.	Smoking in prohibited area (Closed Go-downs, Storage of flammable material, Storage of Gas cylinders)	5	1000/-
84.	Sleeping at Work Place	3	100/-
85.	Driving beyond speed limit	3	1000/-
86.	Seat Belt While Driving (for front seat passengers and driver)	3	500/-
87.	Driving without license	4	1000/-
88.	Heavy Commercial vehicles without reverse horn	3	500/-
89.	Non functional Head light/ tail light and side indicators	3	100/-
90.	Using Mobile Phone During Driving	5	5000/-
91.	Poor visibility of registration number/ without registration number	3	100/-
92.	Broken/ without Side view mirror	3	100/-
93.	Over speeding above specified limit	3	500/-
94.	Broken/ Without Pressure gauge on Oxygen/ LPG / Acetylene cylinder.	3	500/-



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NIT No.: TPCODL/P&S/120/2020-21

Sr No	Description of violation	Severity	Penalty /
95.	Without Flash back arrestor on Industrial Acetylene & Oxygen cylinders.	5	5000/-
96.	Spillage of hazardous material/chemicals during transportation	4	2000/-
97.	Electrical equipment without Earthing/ ELCB/ Double Insulation Cable.	5	5000/-
98.	Lifting Tools & Tackles used without/ expired Test Certificates.	5	5000/-
99.	Housekeeping repeatedly not maintained		
100.	<ul style="list-style-type: none"><li>• First Time</li></ul>	3	Warning
101.	<ul style="list-style-type: none"><li>• Second Time</li></ul>	4	1000/-
102.	<ul style="list-style-type: none"><li>• Third Time</li></ul>	5	5000/-
103.	Serious Violation Of House Keeping (after 1 <sup>st</sup> or 2 <sup>nd</sup> warning to be decided by Project Manager depending on the severity)		Rs.10000/- and above
104.	Repeat Violation of same nature	5	5X Violation

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2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

NIT No.: TPCODL/P&S/120/2020-21

**ANNEXURE X**  
**TATA CODE OF CONDUCT**

The Owner abides by the Tata Code of Conduct in all its dealing with stake holders and the same shall be binding on the Owner and the Contractor for dealings under this Order/ Contract. A copy of the Tata Code of Conduct is available a tour website:

**<https://www.tatapower.com/pdf/aboutus/Tata-Code-of-Conduct.pdf>**

The Contractor is requested to bring any concerns regarding this to the notice of our Chief Procurement & Stores e-mail ID: [pkjain@tatapower.com](mailto:pkjain@tatapower.com).

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2nd Floor, IDCO Tower, Janpath Bhubaneshwar, Odisha 751022

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**ANNEXURE XI**  
**ENVIRONMENT & SUSTAINABILITY POLICY**



**CORPORATE ENVIRONMENT POLICY**

**Tata Power is committed to a clean, safe and healthy environment, and we shall operate our facilities in an environmentally sensitive and responsible manner. Our commitment to environmental protection and stewardship will be achieved by:**

- Complying with the requirements and spirit of applicable environmental laws and striving to exceed required levels of compliance wherever feasible
- Ensuring that our employees are trained to acquire the necessary skills to meet environmental standards
- Conserving natural resources by improving efficiency and reducing wastage
- Making business decisions that aim towards sustainable development
- Engaging with stakeholders to create awareness on sustainability

(Praveer Sinha)  
CEO & Managing Director

Date: 15<sup>th</sup> June, 2018

**TATA POWER**  
Lighting up Lives!





**TP CENTRAL ODISHA DISTRIBUTION LIMITED**  
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NIT No.: TPCODL/P&S/120/2020-21



## **CORPORATE SUSTAINABILITY POLICY**

At **Tata Power**, our Sustainability Policy integrates economic progress, social responsibility and environmental concerns with the objective of improving quality of life. We believe in integrating our business values and operations to meet the expectations of our customers, employees, partners, investors, communities and public at large

- We will uphold the values of honesty, partnership and fairness in our relationship with stakeholders
- We shall provide and maintain a clean, healthy and safe working environment for employees, customers, partners and the community
- We will strive to consistently enhance our value proposition to the customers and adhere to our promised standards of service delivery
- We will respect the universal declaration of human rights, International Labour Organization's fundamental conventions on core labour standards and operate as an equal opportunities employer
- We shall encourage and support our partners to adopt responsible business policies, Business Ethics and our Code of Conduct Standards
- We will continue to serve our communities:
  - By implementing sustainable Community Development Programmes including through public/private partnerships in and around our area of operations
  - By constantly protecting ecology, maintaining and renewing bio-diversity and wherever necessary conserving and protecting wild life, particularly endangered species
  - By encouraging our employees to serve communities by volunteering and by sharing their skills and expertise
  - By striving to deploy sustainable technologies and processes in all our operations and use scarce natural resources efficiently in our facilities
  - We will also help communities that are affected by natural calamities or untoward incidence, or that are physically challenged in line with the Tata Group's efforts

The management will commit all the necessary resources required to meet the goals of Corporate Sustainability.

(Praveer Sinha)  
CEO & Managing Director

Date: 15<sup>th</sup> June, 2018

**TATA POWER**  
Lighting up Lives!



# TECHNICAL SPECIFICATIONS

	<b>TATA POWER COMPANY LIMITED, BHUBANESWAR</b>		
	<b>TECHNICAL SPECIFICATION</b>		
<b>Document Title</b>	Specification for Indicating type silica gel (Appearance- Blue)		
<b>Document No.</b>	ENG-C-32	<b>Eff. Date:</b>	
<b>Revision No.</b>	00	<b>Page 1 of 6</b>	
<b>Prepared by:</b>	<b>Reviewed By:</b>	<b>Approved By:</b>	<b>Issued By:</b>

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2. APPLICABLE STANDARDS
3. CLIMATIC CONDITIONS OF INSTALLATION
4. GENERAL TECHNICAL REQUIREMENTS
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6. MARKING
7. TESTS
8. TYPE TEST CERTIFICATE
9. PRE-DISPATCH INSPECTION
10. INSPECTION AFTER RECEIPT AT STORES
11. GUARANTEE
12. PACKING
13. TENDER SAMPLE
14. MANUFACTURING ACTIVITIES
15. SCHEDULE OF DEVIATIONS

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<b>TATA POWER COMPANY LIMITED, BHUBANESWAR</b>	
<b>TECHNICAL SPECIFICATION</b>	
<b>Document Title</b>	Specification for Indicating type silica gel (Appearance- Blue)
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<b>1.0</b>	<b>SCOPE</b>	This specification covers the technical requirements of design, manufacturing & testing at manufacturer's works, packing, forwarding, supply and unloading at site/store of indicating type 'Silica Gel (in Blue colour) ' used in the breather of for safe and satisfactory operation of transformer.
<b>2.0</b>	<b>APPLICABLE STANDARDS</b>	<p>The equipment covered by this specification shall unless otherwise stated, be designed, manufactured and tested in accordance with the latest editions of the following Indian standard and shall conform to the regulations of the local statutory authorities.</p> <ol style="list-style-type: none"> <li>1) IS 3401 : 1992 - Silica Gel - Specification.</li> <li>2) IS 4905 : 1968 – Methods for random sampling.</li> </ol>
<b>3.0</b>	<b>CLIMATIC CONDITIONS OF THE INSTALLATION</b>	<p>The service conditions shall be as follows:</p> <ol style="list-style-type: none"> <li>1. Maximum altitude above sea level 1,000m</li> <li>2. Maximum ambient air temperature 50 °C</li> <li>3. Maximum daily average ambient air temperature 35 °C</li> <li>4. Minimum ambient air temperature 0 °C</li> <li>5. Maximum relative humidity 95%</li> <li>6. Average number of thunderstorm days per annum (isokeraunic level) 70</li> <li>7. Average number of rainy days per annum 120</li> <li>8. Average annual rainfall 150cm</li> <li>9. Earthquakes of an intensity in horizontal direction - equivalent to seismic acceleration of 0.3g</li> <li>10. Earthquakes of an intensity in vertical direction - equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity)</li> <li>11 .Wind velocity: 300 km/hr, 200 km/hr and 160 km/hr.</li> </ol> <p>Environmentally, some of the regions, where the work will take place includes coastal areas, subject to high relative humidity, which can give rise to condensation. Onshore winds will frequently be salt laden. On occasions, the combination of salt and condensation may create pollution conditions for outdoor insulators. Some places are in heavily industrial polluted areas.</p> <p>Therefore, Outdoor material and equipment shall be designed and protected for use in exposed, heavily polluted, salty, corrosive and humid coastal atmosphere</p> <p>The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1 g.</p>
<b>4.0</b>	<b>GENERAL TECHNICAL REQUIREMENTS:-</b>	
	<b>S No.</b>	<b>Description</b>
	1	Application
	2	Applicable Standard
	3	Type
		<b>Requirement</b>
		Shall be used in the breather provided along with Distribution Transformers
		IS 3401:1992, IS 4905:1968
		Indicating

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<b>TATA POWER COMPANY LIMITED, BHUBANESWAR</b>			
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4	Appearance	Dark Blue crystal
5	Chemical formula	SiO <sub>2</sub>
6	Bulk Density (g/CC)	0.55-0.75
7	Granule Size (Mesh)	3-5 mesh (4 - 6.73mm)
8	Loss on Drying	Silica gel tested as per the IS 3401:1992 shall not lose more than 5% of its mass
9	Adsorption capacity	Silica gel tested as per the IS 3401:1992 shall adsorb minimum 27% of moisture based on its mass
10	pH	3.5-8
11	Chlorides (as NaCl), % by mass, Max	0.4
12	Cobalt Content (as COCl <sub>2</sub> ), % by mass, Min	0.5
13	Ammonium compounds, % by mass, Max	0.001
14	Sulphates, % by mass, Max	0.5
15	Loss on Attrition	Silica gel tested as per IS 3401:1992 shall not be more than 2.5% of the material shall pass through the test sieves

<b>5.0</b>	<b>GENERAL REQUIREMENTS: -</b>																			
<b>6.0</b>	<b>MARKING</b>	The Air tight container/ Packing shall be marked with the following- a) Material name & type b) Manufacture name c) Mass of the material																		
<b>7.0</b>	<b>TESTS</b>	All the Routine and Acceptance tests shall be carried out in accordance with the relevant IS. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sr no.</th> <th style="width: 60%;">Test name</th> <th style="width: 30%;">As per IS</th> </tr> </thead> <tbody> <tr> <td>i)</td> <td>Determination of Loss on Drying</td> <td>IS 3401:1992</td> </tr> <tr> <td>ii)</td> <td>Determination of Adsorption capacity</td> <td>IS 3401:1992</td> </tr> <tr> <td>iii)</td> <td>Determination of pH</td> <td>IS 3401:1992</td> </tr> <tr> <td>iv)</td> <td>Determination of loss on Attrition</td> <td>IS 3401:1992</td> </tr> <tr> <td>v)</td> <td>Chemical requirements of Silica gel ( as mentioned under Cl.4)</td> <td>IS 3401:1992</td> </tr> </tbody> </table>	Sr no.	Test name	As per IS	i)	Determination of Loss on Drying	IS 3401:1992	ii)	Determination of Adsorption capacity	IS 3401:1992	iii)	Determination of pH	IS 3401:1992	iv)	Determination of loss on Attrition	IS 3401:1992	v)	Chemical requirements of Silica gel ( as mentioned under Cl.4)	IS 3401:1992
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<b>8.0</b>	<b>TYPE TEST CERTIFICATE</b>	The bidder shall furnish the type test certificates for the tests as mentioned above as per the corresponding IS standard. All the tests shall be conducted at NABL accredited Laboratory as per the relevant standards. Type tests conducted in certified Test laboratories during the period not exceeding 5 years from the date of opening the bid. In the event of any discrepancy in the test reports, i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPCL.																		
<b>9.0</b>	<b>PRE-DISPATCH</b>																			

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	<b>INSPECTION</b>	<p>Equipment shall be subject to inspection by a duly authorized representative of the TPCL. The inspection shall be based on the approved copy of technical compliance of specification and approved drawings called as approved technical documents.</p> <p>Bidders to generate inspection request in advance (as per GCC) from proposed inspection date. Bidder to submit the inspection request form in TPCL format and provide details of offered material along with routine test certificate. TPCL shall intimate the information about inspecting team.</p> <p>Inspection may be made at any stage of manufacture at the option of the purchaser and the equipment if found unsatisfactory as to workmanship or material, the same is liable to rejection. Bidder shall grant free access to the places of manufacture to the TPCL representatives at all times when the work is in progress. Inspection by the TPCL or its authorized representatives shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specifications.</p> <p>If during inspection any observation recorded same to be addressed by manufacturer at earliest and compliance report to be shared to quality department of TPCL. TPCL shall take a call for providing MDCC (Material Dispatch Clearance Certificate) or re-inspection.</p> <p>Material shall be dispatched only after specific MDCC (Material Dispatch Clearance Certificate) is issued by the TPCL.</p> <p>Following documents shall be sent along with material :</p> <ol style="list-style-type: none"> <li>a) Test reports</li> <li>b) MDCC issued by TPCL</li> <li>c) Invoice in duplicate</li> <li>d) Packing list if applicable</li> <li>e) Drawings &amp; catalogue</li> <li>f) Guarantee / Warrantee card</li> <li>g) Delivery Challan</li> <li>h) Other Documents (as applicable)</li> </ol>
<b>10.0</b>	<b>INSPECTION AFTER RECEIPT AT STORE</b>	<p>The material received at TPCL, Bhubaneswar, Odisha store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection or any other parameters observed after delivery.</p> <p>Bidders to attend and rectify the same at his own cost. The material shall be accepted in stores only after rectification of any observed flaw.</p> <p>Billing shall be processed only after acceptance of the material. The bills to be submitted at BIRD section of the TPCL.</p>
<b>11.0</b>	<b>GUARANTEE</b>	<p>Bidder shall stand guarantee towards design, materials, workmanship &amp; quality of process / manufacturing of items under this contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by TPCL up to a period of at least 12 months from the date of installation or 24 months from the date of last supplies made under the contract whichever is later.</p>
<b>12.0</b>	<b>PACKING</b>	

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		<p>The silica gel shall be packed in air-tight recyclable plastic packing and then the material shall be packed in clean, dry container.</p> <p>The container shall not be opened until required for use and delivery at stores. Bidders to use recyclable plastic for packing and encourage recyclable material for packing.</p>																														
<b>13.0</b>	<b>TENDER SAMPLE</b>	All the bidders need to provide the sample of gaskets offered by them along with the technical bid.																														
<b>14.0</b>	<b>MANUFACTURING ACTIVITIES</b>	<p>The successful bidder will have to submit the bar chart for various manufacturing activities clearly elaborating each stage with quantity. This bar chart shall be in line with the quality assurance plan submitted with the offer. This bar chart will have to be submitted within 15 days from the release of the order.</p> <p><b>Documents to be submitted after the award of the contract are as under: -</b></p> <table border="1"> <thead> <tr> <th>Sr no.</th> <th>Description</th> <th>For Approval</th> <th>For Review/ Information</th> <th>Final Submission</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>General Technical Particulars</td> <td style="text-align: center;">✓</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td>2</td> <td>Bill of materials</td> <td style="text-align: center;">✓</td> <td></td> <td style="text-align: center;">✓</td> </tr> <tr> <td>3</td> <td>Instruction for use</td> <td></td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> </tr> <tr> <td>4</td> <td>QA &amp; QC plan</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> </tr> <tr> <td>5</td> <td>Test certificates</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> <td style="text-align: center;">✓</td> </tr> </tbody> </table> <p>All the documents &amp; drawings shall be in English language. After the receipt of the order, the successful bidder will be required to furnish five copies of all relevant drawings for TPCL approval.</p>	Sr no.	Description	For Approval	For Review/ Information	Final Submission	1	General Technical Particulars	✓		✓	2	Bill of materials	✓		✓	3	Instruction for use		✓	✓	4	QA & QC plan	✓	✓	✓	5	Test certificates	✓	✓	✓
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<b>15.0</b>	<b>SCHEDULE OF DEVIATION</b>	<p>The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.</p> <p style="text-align: center;"><b><u>(TO BE ENCLOSED WITH THE BID)</u></b></p> <p>All deviations from this specification shall be set out by the bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S.No.</th> <th style="text-align: center;">Clause No.</th> <th style="text-align: center;">Details of deviation with justifications</th> </tr> </thead> <tbody> <tr> <td style="height: 100px;"></td> <td></td> <td></td> </tr> </tbody> </table> <p>We confirm that there are no deviations apart from those detailed above.</p> <p>Seal of the Company <span style="float: right;">Signature :</span></p> <p style="text-align: right;">Designation :</p>	S.No.	Clause No.	Details of deviation with justifications			
S.No.	Clause No.	Details of deviation with justifications						

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1.0	<b>SCOPE</b>	This specification covers the technical requirements of design, manufacturing & testing at manufacturer's works, packing, forwarding, supply and unloading at store of 'Silica Gel Breather ' of various sizes required for safe and satisfactory operation of transformer.															
2.0	<b>APPLICABLE STANDARDS</b>	The equipment covered by this specification shall unless otherwise stated, be designed, manufactured and tested in accordance with the latest editions of the following Indian, International standard / IEC and shall conform to the regulations of the local authorities. IS 3401: 1992 Specification for Silica Gel. IS 11149:1984 Specification of rubber gasket BS EN 50216-5 Transformer and reactors fitting- dehydrating breathers															
3.0	<b>CLIMATIC CONDITIONS OF THE INSTALLATION</b>	<p>The material shall be suitable for following climatic conditions,</p> <ol style="list-style-type: none"> <li>1. Maximum altitude above sea level 1,000m</li> <li>2. Maximum ambient air temperature 50°C</li> <li>3. Maximum daily average ambient air temperature 35°C</li> <li>4. Minimum ambient air temperature 0°C</li> <li>5. Maximum relative humidity 95%</li> <li>6. Average number of thunderstorm days per annum (isokeraunic level) 70</li> <li>7. Average number of rainy days per annum 120</li> <li>8. Average annual rainfall 150cm</li> <li>9. Earthquakes of an intensity in horizontal direction - equivalent to seismic acceleration of 0.3g</li> <li>10. Earthquakes of an intensity in vertical direction - equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity)</li> <li>11 .Wind velocity: 300 km/hr, 200 km/hr and 160 km/hr.</li> </ol> <p>Environmentally, some of the regions, where the work will take place includes coastal areas, subject to high relative humidity, which can give rise to condensation. Onshore winds will frequently be salt laden. On occasions, the combination of salt and condensation may create pollution conditions for outdoor insulators. Some places are in heavily industrial polluted areas.</p> <p>Therefore, Outdoor material and equipment shall be designed and protected for use in exposed, heavily polluted, salty, corrosive and humid coastal atmosphere</p> <p>The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1 g.</p>															
4.0	<b>GENERAL TECHNICAL REQUIREMENTS</b>																
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			and 4-2 Mesh (4.76 to 10 mm) for 5kg to 15kg capacity breathers
5	Breathing hole on top and bottom plate		Minimum 2 on top and 2 on bottom sheet shall be provided
6	Breathing holes on oil cup		Minimum 2 number (on opposite side) with Minimum 2.5mm diameter
7	Oil cup material		Clear Transparent, UV stabilized/retardant, polycarbonate
8	Silica gel breather Capacity		500grams, 1kg, 2kg, 6kg,8kg,15kg
9	Silica gel color change on moisture absorption		From Blue to Pink
10	Breather size		Breather size should be such that it should accommodate the desired quantity of the silica gel as per weight in kg and as specified granules size in this specs.
11	Tie rods Material		All tie rods should be of stainless steel material SS 304
12	Hardware		All hardware shall be of stainless steel and washers to be provided for all nuts
13	Tie rods		1. 3kg and above capacity minimum 4 tie rods of M8 size to be provided 2. For below 3kg capacity single tie rod of M8 size or side fixing arrangement on top cover at three places
14	Mounting arrangement		1. Up to 2 kg capacity of Silicagel breather shall have top threaded mounting arrangement with 1/2" size having 3/4" BSP threading. 2. 2kg and above capacity shall have flange mounting with 4 holes of 12mm diameter (15mm diameter for 15kg) on 83 PCD.
15	Oil cup fixing		If the fixing arrangement of oil cup is provided on threaded arrangement at center of cup then the central stem shall be provided with nylon or alternate material to accommodate the thermal expansion of SS metal steam. If metallic clamp is provided to hold the cup then the clamp should be of stainless steel and size should be minimum 3mm diameter.

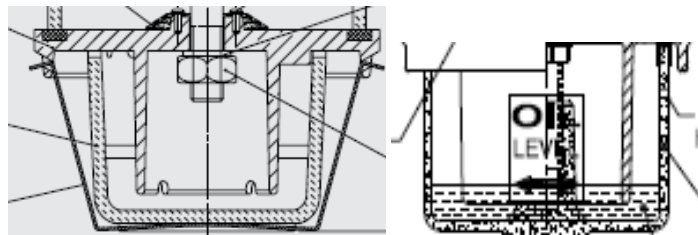
**5.0 GENERAL CONSTRUCTIONS**

<b>5.1</b>	<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Silica gel breather is used for avoiding the moisture ingress in to transformer as the moisture ingress is detrimental to the health of the transformer. Hence the design of breather housing should be such that no air shall go inside except from desired air path through oil cup. The sealing of top and bottom caps should intact such that it should with stand pressure of 0.35kg/cm<sup>2</sup> for 30 minutes in air.</li> <li>2. Body shall be made of Transparent yet Unbreakable UV stabilized virgin</li> </ol>
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		<p>Polycarbonate Plastic. The procurement records of polycarbonate shall be checked during inspection.</p> <ol style="list-style-type: none"> <li>3. Polycarbonate body sheet shall be of minimum 3 mm thickness up to 2kg breather capacity &amp; for larger capacity the thickness should be minimum 4mm.</li> <li>4. Top &amp; Bottom sheet shall be made of die cast Aluminium &amp; joined with body through nitrile butadiene rubber gaskets such that no air can pass even under pressure or vacuum.</li> <li>5. Rubber gasket shall be Class 3B, Type III as per IS 11149 (Oil resistant). OEM Test reports to be provided during inspection.</li> <li>6. Sealant used for fixing should be UV stabilized and temperature withstand up to 55-60 degrees.</li> <li>7. Top and bottom cap shall be powder coated. (The surface should be made smooth with shot blasting or with seven tank method and not by Phosphate Cleaning processes) paint shall be dark gray color.</li> <li>8. Oil cup shall be made of polycarbonate shall be fitted with nitrile gasket on top and shall be fitted on lower die cast Aluminium sheet or polycarbonate housing.</li> <li>9. Two breathing holes shall be provided on oil cup which shall be covered with stickers while dispatch. Stickers shall be easily removable after installation of breather on transformer at site.</li> <li>10. Breathing holes shall be provided on top and bottom die casted AL sheet (2 on upper side and 2 on lower side).</li> <li>11. For breather up to 2 kg capacity one supporting tie rod of SS 304 of M8 size can be provided along the central axis of polycarbonate body. Min. Three SS nuts to be used one top plate, two at bottom plate one inside one outside with washer. Alternately completely molded oil cup also accepted based on sample approvals during tender and not after award of order.</li> <li>12. For breather greater than 2 kg capacity shall have 4 Number of supporting tie rods of SS 304 of M8 size shall be provided outside the polycarbonate body.</li> <li>13. Upper side Al die casted cap shall be provided with following fixing arrangement,</li> <li>14. Up to 2 kg capacity of Silicagel breather shall have top threaded mounting arrangement with 1/2" size having 3/4" BSP threading.</li> <li>15. 2kg and above capacity shall have flange mounting with 4 holes of 12mm diameter (15mm diameter for 15kg) on 83 PCD.</li> <li>16. The top fixing arrangement in mold or with 32 A/F hex bolt shall have minimum 6 mm wall thickness for breathers up to 2kg.</li> <li>17. Oil cup shall have visible Collar with label or level paint marking to indicate desired oil filling level. The label shall have mention of 'Oil Level'. The sticker is not accepted.</li> <li>18. In any capacity holding clamp if used then it should be of stainless steel. Alternately designs of holding oil cup shall be accepted based on tender sample approval. Design should meet the requirements and sturdy.</li> <li>19. If the fixing arrangement of oil cup is provided on threaded arrangement at center of cup then following are applicable, <ol style="list-style-type: none"> <li>a. The central stem shall be provided with nylon or alternate material to accommodate the thermal expansion of SS metal stem.</li> <li>b. The inside threading stem in oil cup shall have four number supporting reinforcement stiffener of min. 2-4mm thick so that shall not be broken easily.</li> <li>c. The height of the central stem in oil cup shall be above the oil level mark and well inside air channel collar around 3/4 height of oil cup.</li> </ol> </li> </ol>
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20. The air channel inner collar at bottom plate shall be extended more than half around  $\frac{3}{4}$  height of oil cup inside the oil cup such that if oil level is at  $\frac{3}{4}$  of cup then also the filtered air through oil shall pass in the breather.
21. Silica gel crystal size shall be as per US mesh size and
  - a. 3-5 mesh (4 to 6.73mm) up to 2kg capacity breather and
  - b. 4-2 Mesh (4.76 to 10mm) for 5kg to 15kg capacity breathers

If breather found with smaller or bigger granules same shall not be accepted. There shall not any negative tolerance on Silicagel weight as per capacity.
22. The top opening shall be fixed with PVC removable cap threaded type which can be easily removed at site.
23. For 500gm, 1 kg & 2kg without bottom metal casting plate i.e. complete polycarbonate molding body is also accepted. (Acrylic is not accepted in any of the rating).
24. The clear view height shall be minimum 80mm for 500 grams & minimum 100 mm for 1kg and 120mm for 2 kg design. It is preferred to have design with longer height and shorter diameter of the breather so that air filter path can be longer to extract moisture.
25. Cap nuts to be provided on SS tie rods on both sides in 3kG and above capacity breather.
26. The watershed or bottom collar near oil cup shall be minimum 10mm extended over gasket on oil cup.
27. The oil cup shall have brass threaded nut housed inside or alternate material so that thermal expansion of metal and polycarbonate can be taken care without cracks.
28. Only UV resistant polycarbonate material to be used for transparent body and oil cup. OEM Test report & sourcing documents to be provided for the material during inspection.
29. The indicative drawing of bottom cup assembly,



6.0

**NAME PLATE AND MARKING**

The breather shall be provided with durable and legible name plate on top of aluminum die casting, effectively secured against removal.

The name plate shall be indelibly and distinctly marked with all essential particulars with the following information:

- a) Name and capacity of the breather
- b) Silica gel color change mode i.e. blue to pink,
- b) Manufacturer name & address,

		<p>c) Manufacturer month and year</p> <p>d) PO number &amp; date</p> <p>e) 'Property of TPCL, BHUBANESWAR' label</p>																
<b>7.0</b>	<b>TESTS</b>																	
<b>7.1</b>	<b>TYPE TEST</b>	<p>All the tests shall be conducted by CPRI/ ERDA or any NABL accredited laboratory. Type test should have been conducted in certified Test Laboratories during the period not exceeding 5 years from the date of opening the bid.</p> <p>Bidders to submit the test reports as mentioned during tender. If the same not possible then bidder to submit undertaking stating 'Silica gel shall be tested at NABL Accredited Laboratory as per IS 3401 &amp; Metal housing shall have to be tested for as per specification requirements at NABL Accredited Laboratory before drawing approvals and after placement of RC within 50days (including holidays) &amp; test report to be submitted to plant engineering department of TPCL.</p> <p>After 50 days of non-submission of document the RC shall be liable for cancellation without notice.</p> <p>Following tests to be done as type test-</p> <p><b>A) TESTS ON SILICA GEL:</b></p> <p>Below mentioned tests has to be done as per IS 3401</p> <ol style="list-style-type: none"> <li>Determination of Loss on Drying</li> <li>Determination of Absorption Capacity</li> <li>Determination of pH</li> <li>Determination of Loss on Attrition</li> <li>Test for chemical requirements of silica gel</li> </ol> <p>B) For Breather housing,</p> <table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Test</th> <th>Method</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Air pressure test</td> <td>Breather assembly plugged at openings and dipped in water. Air introduced from one end of breather. Breather shall be tested at an air pressure of 0.35kg/cm<sup>2</sup> (5 PSI) for period of 30 minutes.</td> <td>During Test No. leakage to be observed from breather assembly including any joint or casting</td> </tr> <tr> <td>2</td> <td>Breath IN Test</td> <td>From Top end a Vacuum of 50mm of mercury (50 Torr) applied for 10 minutes</td> <td>No oil to be enter breather from oil cup</td> </tr> <tr> <td>3</td> <td>Breath OUT Test</td> <td>From top end a pressure of 0.10Kg/cm<sup>2</sup> applied for 10 minutes.</td> <td>No spillage of oil observed from oil cup.</td> </tr> </tbody> </table>	Sr. no.	Test	Method	Requirement	1	Air pressure test	Breather assembly plugged at openings and dipped in water. Air introduced from one end of breather. Breather shall be tested at an air pressure of 0.35kg/cm <sup>2</sup> (5 PSI) for period of 30 minutes.	During Test No. leakage to be observed from breather assembly including any joint or casting	2	Breath IN Test	From Top end a Vacuum of 50mm of mercury (50 Torr) applied for 10 minutes	No oil to be enter breather from oil cup	3	Breath OUT Test	From top end a pressure of 0.10Kg/cm <sup>2</sup> applied for 10 minutes.	No spillage of oil observed from oil cup.
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<b>7.2</b>	<b>ROUTINE TEST</b>	<p>A. ON breather housing,</p> <table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Test</th> <th>Method</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Air pressure test</td> <td>Breather assembly plugged at openings and dipped in water. Air introduced from one end of breather. Breather shall be tested at an air pressure of</td> <td>During Test No. leakage to be observed from breather assembly</td> </tr> </tbody> </table>	Sr. no.	Test	Method	Requirement	1	Air pressure test	Breather assembly plugged at openings and dipped in water. Air introduced from one end of breather. Breather shall be tested at an air pressure of	During Test No. leakage to be observed from breather assembly								
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		<p>B. The other components,</p> <ol style="list-style-type: none"> <li>1. Test report of silica gel material from OEM as per IS 3401.</li> <li>2. Gaskets - The OEM shall share the nitrile rubber test report as per Class 3B, Type III as per IS 11149.</li> </ol>																												
7.3	<b>ACCEPTANCE TEST</b>	<p>A.ON breather housing,</p> <table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Test</th> <th>Method</th> <th>Requirement</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Air pressure test</td> <td>Breather assembly plugged at openings and dipped in water. Air introduced from one end of breather. Breather shall be tested at an air pressure of 0.35kg/cm2 (5 PSI) for period of 30 minutes.</td> <td>During Test No. leakage to be observed from breather assembly including any joint or casting</td> </tr> <tr> <td>2</td> <td>Breath IN Test</td> <td>From Top end a Vacuum of 50mm of mercury (50 Torr) applied for 10 minutes</td> <td>No oil to be enter breather from oil cup</td> </tr> <tr> <td>3</td> <td>Breath OUT Test</td> <td>From top end a pressure of 0.10Kg/cm2 applied for 10 minutes.</td> <td>No spillage of oil observed from oil cup.</td> </tr> <tr> <td>4</td> <td>Visual Test</td> <td>Breather shall be free from any surface defect and polycarbonate should be clear transparent without any mark.</td> <td>Without any defect or mark</td> </tr> <tr> <td>5</td> <td>Capacity</td> <td>Weight measurement of Silicagel as per defined capacity</td> <td>The each breather housing should hold the desired quantity of silica gel as per defined capacity with defined crystals mesh sizes.</td> </tr> </tbody> </table> <p>B. The other components,</p> <ol style="list-style-type: none"> <li>3. Test report of silica gel material from OEM.</li> <li>4. The polycarbonate material- The sourcing documents shall be verified and test report of OEM shall be accepted. If required glow wire test shall be conducted either at factory or at TPCL premises.</li> </ol>					Sr. no.	Test	Method	Requirement	1	Air pressure test	Breather assembly plugged at openings and dipped in water. Air introduced from one end of breather. Breather shall be tested at an air pressure of 0.35kg/cm2 (5 PSI) for period of 30 minutes.	During Test No. leakage to be observed from breather assembly including any joint or casting	2	Breath IN Test	From Top end a Vacuum of 50mm of mercury (50 Torr) applied for 10 minutes	No oil to be enter breather from oil cup	3	Breath OUT Test	From top end a pressure of 0.10Kg/cm2 applied for 10 minutes.	No spillage of oil observed from oil cup.	4	Visual Test	Breather shall be free from any surface defect and polycarbonate should be clear transparent without any mark.	Without any defect or mark	5	Capacity	Weight measurement of Silicagel as per defined capacity	The each breather housing should hold the desired quantity of silica gel as per defined capacity with defined crystals mesh sizes.
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		<p>5. Gaskets - The sourcing documents shall be verified and test report of OEM shall be accepted. The OEM shall share the nitrile rubber test report as per Class 3B, Type III as per IS 11149.</p> <p>6. The hardware of Stainless steel Material - The scouring documents shall be verified and test report of OEM shall be accepted.</p>
8.0	<b>PRE-MANUFACTURING CLEARANCE</b>	<p>The successful bidder (after placement of RC) shall submit one prototype samples of ratings up to 6kg (free of cost) for further verification and compliance as per specifications requirement. This is to be done within 7days of RC placement. The samples, technical compliance document and drawing of each capacity of breather as per RC line items to be submitted for getting approval before mass manufacturing.</p> <p>If the samples submitted in tender was in line with specification requirements then the same samples shall be treated as pre-manufacturing samples. These samples shall retained to check and compare the supplies of material during RC period.</p> <p>The unsuccessful bidder to lift the samples from TPCL premises within 30 days after award of RC to successful bidder.</p>
9.0	<b>PRE-DISPATCH INSPECTION</b>	<p>Equipment shall be subject to inspection by a duly authorized representative of the TPCL. The inspection shall be based on the approved copy of technical compliance of specification and approved drawings called as approved technical documents.</p> <p>Bidders to generate inspection request in advance (as per GCC) from proposed inspection date. Bidder to submit the inspection request form in TPCL format and provide details of offered material along with routine test certificate. TPCL shall intimate the information about inspecting team.</p> <p>Inspection may be made at any stage of manufacture at the option of the purchaser and the equipment if found unsatisfactory as to workmanship or material, the same is liable to rejection. Bidder shall grant free access to the places of manufacture to the TPCL representatives at all times when the work is in progress. Inspection by the TPPDL or it's authorized representatives shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specifications.</p> <p>If during inspection any observation recorded same to be addressed by manufacturer at earliest and compliance report to be shared to quality department of TPCL. TPCL shall take a call for providing MDCC or re-inspection.</p> <p>Material shall be dispatched only after specific MDCC (Material Dispatch Clearance Certificate) is issued by the TPCL.</p> <p>Following documents shall be sent along with material :</p> <ol style="list-style-type: none"> <li>a) Test reports</li> <li>b) MDCC issued by TPCL</li> <li>c) Invoice in duplicate</li> <li>d) Packing list if applicable</li> <li>e) Drawings &amp; catalogue</li> <li>f) Guarantee / Warrantee card</li> <li>g) Delivery Challan</li> <li>h) Other Documents (as applicable)</li> </ol>
10.0	<b>INSPECTION AFTER RECEIPT AT STORE</b>	<p>The material received at TPCL, Bhubaneswar, Odisha store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection or any other parameters observed after delivery.</p> <p>Bidders to attend and rectify the same at his own cost. The material shall be accepted in stores only after rectification of any observed flaw.</p>

		Billing shall be processed only after acceptance of the material. The bills to be submitted at BIRD section of the TPCL.
11.0	<b>GAURANTY</b>	<p>Warranty of the product shall be one years from the date of supply of material.</p> <p>If any defect found in product within warranty period, BA is liable to replace the product free of cost.</p>
12.0	<b>PACKING</b>	<p>The breather shall be packed in air-tight recyclable plastic packing and then the material shall be packed in clean, dry container.</p> <p>The container shall not be opened until required for use and delivery at stores. Bidders to use recyclable plastic for packing and encourage recyclable material for packing.</p>
13.0	<b>TENDER SAMPLE</b>	One sample of each capacity up to 6kg capacity of breather shall be submitted free of cost as tender sample during technical evaluation of bid along with drawing of all capacity of breathers as per tender line items.
14.0	<b>MINIMUM TESTING FACILITIES</b>	Bidder shall have adequate in house testing facilities for carrying out all routine tests, acceptance tests as mentioned in this document and as per Indian/International standards.
15.0	<b>DRAWING AND DOCUMENTS</b>	<p>Following drawings and documents shall be prepared based on TPCL specifications and statutory requirements and shall be submitted with the bid :</p> <ol style="list-style-type: none"> <li>Completely filled in compliance document of this specification</li> <li>Drawings of each rating of breather</li> <li>Type test certificates for breather housing</li> <li>Type test report of silica gel – similar supplies done in past</li> <li>Past supplied utilities or transformer manufacturers list</li> </ol> <p>After the award of the contract following drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval.</p> <ol style="list-style-type: none"> <li>Completely filled in compliance document of this specification</li> <li>Drawings of each rating of breather along with material and each component</li> <li>Type test certificates for breather housing</li> <li>Type test report of silica gel – similar supplies done in past</li> </ol> <p>All the documents &amp; drawings shall be in English language.</p>
16.0	<b>GUARANTEED TECHNICAL PARTICULARS</b>	Bidders to comply for all above requirement of specifications clauses & submit signed and stamp copy as technical compliance document along with all detailed drawing having dimensions and material details.
17.0	<b>SCHEDULE OF DEVIATION</b>	<p>The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.</p> <p style="text-align: center;"><b><u>(TO BE ENCLOSED WITH THE BID)</u></b></p> <p>All deviations from this specification shall be set out by the bidders, clause by Clause in</p>



this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:

<b>S.No.</b>	<b>Clause No.</b>	<b>Details of deviation with justifications</b>

We confirm that there are no deviations apart from those detailed above.

Seal of the Company

Signature :

Designation :

## Inspection Test Plan

### A.ON breather housing,

Sr. no.	Test	Method	Requirement	Observation
1	Air pressure test	Breather assembly plugged at openings and dipped in water. Air introduced from one end of breather. Breather shall be tested at an air pressure of 0.35kg/cm <sup>2</sup> (5 PSI) for period of 30 minutes.	During Test No. leakage to be observed from breather assembly including any joint or casting	
2	Breath IN Test	From Top end a Vacuum of 50mm of mercury (50 Torr) applied for 10 minutes	No oil to be enter breather from oil cup	
3	Breath OUT Test	From top end a pressure of 0.10Kg/cm <sup>2</sup> applied for 10 minutes.	No spillage of oil observed from oil cup.	
4	Visual Test	Breather shall be free from any surface defect and polycarbonate should be clear transparent without any mark.	Without any defect or mark	
5	Capacity	Weight measurement of Silicagel as per defined capacity	The each breather housing should hold the desired quantity of silica gel as per defined capacity with defined crystals mesh sizes.	

### B. The other components,

Sr. no.	Material	Reports	Requirement	Observation
1	Silica Gel	Test report of silica gel material from OEM.	As per specs parameters recorded in report & meeting IS 3401 clause 4	
2	Polycarbonate material	The sourcing documents shall be verified	Verification of date and lot and material UV stabilized	
3		Test report of OEM	Verification	
4		If required glow wire test shall be conducted either at factory or at TPCL premises.	Inspector to check if required	
5	Gaskets	The sourcing documents shall be verified	Verification of date and lot of material	
6		Test report of OEM	Nitrile rubber test report as per Class 3B, Type III	

			as per IS 11149	
7	The hardware of Stainless steel Material	The sourcing documents shall be verified	Verification of date and lot of material	
8		Test report of OEM	OEM report is accepted for grade of SS better if mentioned with chemical composition	

## **Eligibility Criteria**

	<p>The bidder should have an average annual turnover of Rs. 1 Cr in last 3 financial years. Copy of audited P&amp;L Account to be submitted in this regard.</p>
	<p>100 % of tender qty executed during last 3 yrs or Single order of 50% of tender qty executed during last 3 years or 2 orders of 30% each for last 3 yrs. Copy of work order / completion certificate to be submitted in this regard.</p>
	<p>Performance Certificates for 1 year satisfactory performance from at least from 3 reputed companies. In case the bidder has a previous association with group of Tata Power companies for similar products and services, the performance feedback for that bidder by group of Tata Power company. User Group shall only be considered irrespective of performance certificates issued by any third organization.</p>
	<p>Bidder should have own manufacturing facility to manufacture the same. Bidder must submit undertaking in this regard.</p>
	<p>In-house testing facilities for acceptance test as per TPCODL specs. Bidder must submit undertaking in this regard.</p>