



TP Southern ODISHA DISTRIBUTION LIMITED
(A Tata Power & Odisha Govt. joint venture)
Kamapalli, Courtpetta, Berhampur, Ganjam, Odisha, India -760 004
NIT No.: TPSODL/OT/2022-23/78

Procedure for Participating in Tender

Tender Enquiry No	Work Description	Estimated Cost/ EMD (Rs.)	Tender Participation Fee (Including of GST)	Last date and time for Payment of Tender Participation Fee
TPSODL/OT/2022-23/78	SITC of VRV air-conditioning at Ambapua-Khodasing Office Building for TPSODL	2.00 Lakh	Rs.5000	02.08.2022 18:00 hrs

Please note that corresponding details mentioned in this document will supersede any other details mentioned anywhere else in the Tender Document.

Procedure for Participating in Tender. Following steps to be done before “Last date and time for Payment of Tender Participation Fee” as mentioned above.

1. Eligible and Interested Bidders to submit duly signed and stamped letter on Bidder's letterhead indicating.
 - A. Tender Enquiry number
 - B. Name of authorized person
 - C. Contact number
 - D. e-mail id
 - E. Details of submission of Tender Participation Fee
 - F. GST Number

2. Non-Refundable Tender Participation Fee, as indicated in table above, to be submitted in the form of direct deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference no:

Beneficiary Name: TP Southern Odisha Distribution Limited.

Account No : 625901010050070

Name of the Bank: Union Bank of India, Kamapalli Branch, Berhampur

IFSC Code : UBIN0562599

E-mail with necessary attachment of 1 and 2 above to be send to asheerbad.panda@tpsouthernodisha.com with copy to manoj.kharbanda@tpsouthernodisha.com before “Last date and time for Payment of Tender Participation Fee”.

3. Bids are to be submitted only through online e-procurement platform, ARIBA. Any other form of bid submission will not be accepted. Link for bidding through ARIBA e-procurement platform will be mailed to bidder once Letter received as mentioned in point no 1 & 2 above.
4. Refer Tender Document for other details.
5. MSME BA from Odisha may refer and follow as per TPSODL GCC norms- Clause 9.4.



NIT No.: TPSODL/OT/2022-23/078

OPEN TENDER NOTIFICATION

FOR

**SITC of VRV air-conditioning at Ambapua-Khodasing Office Building
for TPSODL**

Tender Enquiry No.: TPSODL/OT/2022-23/078

Due Date for Bid Submission: 02.08.2022

**TP Southern Odisha Distribution Limited
Berhampur, Odisha**

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1. Event Information

1.1. Scope of work

Open Tenders are invited through E-Tender Bidding Process from interested Bidders for entering into Rate Contract as defined below:

S. No.	Description	EMD Amount (Rs.)*	Tender Fee inc. GST (Rs.)**
1	SITC of VRV air-conditioning at Ambapua-Khodasing Office Building for TPSODL	2,00,000	5,000

* EMD is exempted for MSMEs registered in the State of Odisha.

** MSMEs registered in the State of Odisha shall pay tender fee of Rs. 1,000/- including 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 Southern Odisha Distribution Limited
Call Center /Training Center, Duduma Colony,
Ambagada, Berhampur, Odisha-761001

1.3. Calendar of Events

(a)	Date of sale/ availability of tender documents from TPSODL Website	From 20.07.2022 onwards
(b)	Last date and time of Payment of Tender Fee	02.08.2022 18:00 Hrs.
(c)	Last Date of receipt of pre-bid queries if any.	28.07.2022 17:00 Hrs.
(d)	Date and Time of Pre-Bid Meeting	NA
(e)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	31.07.2022, 20:00 Hrs.
(e)	Last date and time of receipt of Bids	02.08.2022, 18:00 Hrs.
(f)	Date & Time of opening technical bids & EMD (Envelope-1 & 2)	02.08.2022 18:00 Hrs. onwards

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 TPSODL'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

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

1.7 Qualification Criteria

- The bidder should have average annual turnover of **Rs. 5 Crores** in any of the three years from (FY 17-18, FY 18-19, FY 19-20 & FY 20-21). Audited balance sheet, profit and loss account and auditors report from the statutory auditors of the company required).
- The bidder must be a Manufacturer/ Authorized Channel Partner. Self-Certification for OEM shall be submitted in this regard. In the case of Authorized Dealer, they shall submit the certificate from the OEM.
Note:
 - i. The manufacturers quoting directly shall not authorize their channel partners for the same tender.
 - ii. The manufacturer in any case will not authorize more than one channel partner against the same tender.
- The OEM should have in-house facilities for acceptance tests as per technical specifications. OEM must submit an undertaking in this regard.
- Bidder/OEM shall submit at least 2 performance certificates during the last 03 years from any reputed Company/Utility. Bidder shall submit the copy of the performance certificate, **issued in the name of the OEM only**, in this regard. Past performance experience at TATA Power and its group company shall supersede feedback from other utilities.
- The bidder/OEM should have supplied Similar items of an amount of **Rs. 2 Cr.** during the last 3 years. Last day of previous month prior to date of bid submission shall be counted for purpose of years calculation. Copy of Purchase Order/Customer Order received shall be submitted as supporting document.
- The bidder must have all statutory compliance like valid PAN No., GSTIN etc. The bidder must submit the copy of all these registrations.
- Bidder should not be blacklisted by any Govt. Organization / utility. Bidder must submit the self-undertaking.

Preferential norms for Odisha MSMEs as mentioned hereunder shall also be applicable.

1) Tender Fees

To participate in the tender, MSMEs registered in the State of Odisha shall pay Rs.1,000/- including GST towards cost of tender paper.

2) Earnest Money Deposit (EMD)

EMD shall be exempted for MSME registered in the State of Odisha. However, Bidder shall be barred to participate in the tendering process for a period of 2 years in case it backs out post award of the contract.

3) Qualification Requirement for Open Tenders

Qualification Requirement of Financial Turnover for MSME registered in the State of Odisha shall be reduced to 20% of the existing criteria.



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For Technical Qualification, instead of relying on the volumes / value of earlier Supplies / Projects, assessment of the Bidder shall be done on the basis of feedback from Customers. Past performance experience at Tata Power and its Group Companies shall supersede feedback from other Customers.

4) Performance Bank Guarantees

Performance Bank Guarantee for MSME registered in the State of Odisha shall be 25% of the value normally prescribed.

Note:

In case the bidder has a previous association with TPSODL for similar products and services, the performance feedback for that bidder from TPSODL User Group shall only be considered irrespective of performance certificates issued by any third organization.

However, TPSODL reserve the right to scrutinize and reject any of such existing vendors without assigning reason what so ever may be.

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, TPSODL 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 marketplace 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 TPSODL. This includes all bidding information submitted to TPSODL. All tender documents remain the property of TPSODL and all suppliers are required to return these documents to TPSODL upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

2. Evaluation Criteria

- The bids will be evaluated technically on the compliance to tender terms and conditions.
- The bids will be evaluated commercially on **lowest cost overall BOQ Basis**.
- TPSODL reserves the 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.

- Bidder has to mandatorily quote against each item of Schedule of Items [Annexure I]. Failing to do so, TPSODL may reject the bids.

NOTE:

- Based on latest / previous years experiences of Tata Power / Tata Power group companies with BA, TPSODL reserves the right to disqualify the bidders during techno-commercial evaluation of the bid
- In case of a new bidder not registered, factory inspection and evaluation may be carried out to ascertain bidder's manufacturing capability and quality procedures. However, TPSODL 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 TPSODL 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: The quantity as mentioned in the tender is tentative and for evaluation purpose. Actual quantity shall be as per the site requirement and based on the Release Order sent separately to the Successful bidder. Job has to be carried out on as and when required basis order from TPSODL on the quantity to be specified in the order.

3. 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, etc. will happen only through TPSODL E-Tender system (Ariba).

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 of Rs. 2,00,000 (Rupees Two Lakh Only) shall be valid for 210 days from the due date of bid submission* in the form of Bank Guarantee / Bank Draft / Bankers Pay Order (issued from a Scheduled Bank) online NEFT/ RTGS transfer favoring "TP Southern Odisha Distribution Limited" payable at Berhampur. The EMD has to be strictly in the format as mentioned in General Condition of Contract, failing which it shall not be accepted by TPSODL and the bid as submitted shall be liable for rejection.

A separate *non-refundable tender fee of Rs. 5000.00 (Rupees Five Thousand only)* of stipulated amount also needs to be transferred online through NEFT/ RTGS in case the tender document is downloaded from our website. TPSODL Bank Details for transferring Tender Fee and EMD is as below:



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Beneficiary Name : TP Southern Odisha Distribution Limited.
Account No : 625901010050070
Name of the Bank : Union Bank of India, Kamapalli Branch, Berhampur
IFSC Code : UBIN0562599

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 Southern Odisha Distribution Limited
Call Center /Training Center, Duduma Colony,
Ambagada, BERHAMPUR, Odisha-761001

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 bid shall be properly indexed and is to be submitted through TPSODL E-tender System (Ariba) only. Hard Copy of Technical Bids not to be submitted.

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 TPSODL 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

"SITC of VRV air-conditioning at Ambapua-Khodasing Office Building for TPSODL"

AT TPSODL, ODISHA the Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the TPSODL, 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.

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 TPSODL website by the stipulated timelines as detailed in calendar of events.

Communication Details:**Communication Details:**

Name: Mr. Asheerbad Panda

Contact No: 9776602236

E-Mail ID: asheerbad.panda@tpsouthernodisha.com

HoD – Contracts

Name: Mr. Manoj Kharbanda

Contact No.:9971395197

E-Mail ID: manoj.kharbanda@tpsouthernodisha.com

Chief – Contract and Stores

Name: Mr. Subrata Dey

Contact No.:9818603067

E-Mail ID: subrata.dey@tpsouthernodisha.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 TPSODL. 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 TPSODL 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.

3.8 Earnest Money Deposit (EMD), if applicable, the bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect TPSODL 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 Southern Odisha Distribution Limited payable at Berhampur.
- Online transfer of requisite amount through NEFT/ RTGS.
- Bank Guarantee valid for 120 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

I. accept the Purchase Order/Rate Contract, or

II. furnish the required Performance Security Bank Guarantee

3.9 Type Tests (if applicable)

The type tests specified in TPSODL specifications should have been carried out within five years prior to the date of opening of technical bids and test reports are to be submitted along with the bids. If type tests carried out are not within the five years prior to the date of bidding, the bidder will arrange to carry out type tests specified, at his cost. The decision to accept/ reject such bids rests with TPSODL.

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 TPSODL'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 TPSODL Office, Berhampur. Owing to COVID scenario, all tender bids shall be opened internally by TPSODL. 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

TPSODL 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. TPSODL 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.

Prior to the detailed evaluation, TPSODL 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 TPSODL 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, TPSODL may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the TPSODL 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 TPSODL.

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 TPSODL without any further correspondence in this regard.

4.6. Reverse Auctions

TPSODL 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

TPSODL 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 TPSODL on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that TPSODL may deem relevant.

TPSODL 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 TPSODL 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)
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

- The rates quoted shall be inclusive of all charges, taxes and duties including GST.
- The bidders must visit the site before pre-bid queries & bidding for the tender at their own arrangement. They should intimate beforehand for our EIC or the authorized representative to be available at site for the visit.
- Engineering, design, supply, installation and commissioning of the HVAC system along with the required accessories required for the complete job with ducting, drainage and cabling is in the scope of the Bidder.
- Subsequent Site acceptance test (SAT) shall be in the scope of the bidder and shall be completed in presence of the OEM technical personnel and to the entire satisfaction of TPSODL - EIC. All the other details shall be as per the Technical Specification sheet attached separately (Annexure-II)
- The site clearance before sending the NTP to the bidder shall be in the scope of TPSODL.
- All the civil work, including scaffolding, cutting, digging, trenching, concealing and painting shall be in the scope of the bidder.
- The foundation work for the erection, plumbing and electrical work is in the scope of the bidder.
- All the raw material for the job like, pipes, cement, paints sand and aggregates etc. shall be in the scope of the bidder.
- Bidder is responsible for the arrangement of required skilled manpower along with their lodging, boarding and local conveyance as required for the completion of the job.
- All the required tools & tackles and equipment required for the completion of the job is in the scope of the bidder.
- The bidder is responsible for the safety at site. The person working at site must have all the required PPEs, like safety shoes, gloves, goggles, harness etc.
- Bidder is responsible for all the statutory compliances as required for the completion of the job.



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- The rate finalized is firm and is inclusive of all charges and duties on FOR/DAP-Site basis excluding GST. Any change in GST rates during the contract period shall be borne by TPSODL. However, in case of delay in work execution owing to reasons not attributable to TPSODL, any increase in total liability shall be passed on the Bidder, whereas any benefits arising owing to such statutory variation in taxes and duties shall be passed on TPSODL.
- No escalation or idling charges shall be paid to the Bidder.
- Bidder is responsible for the proper 5S of the work area during and post job and also responsible for the proper cleaning of the scraps and waste generated during the job, if any, from the work site.
- The Bidder shall transfer all the documents along with the warranty of the items in the name of TPSODL upon successful completion of the job.
- Bidder shall submit GTP / Drawing within 2 weeks from issuance of order/contract. In case bidder does not get necessary approvals for issuance of CAT-A within mentioned / mutually agreed timelines then TPSODL reserve the right to cancel issued rate contract / release order and also reserve the right to forfeit EMD / PBG.
- Quotation in all BOQ items is mandatory, and bid shall be rejected if any line of found blank in price bid.
- Warranty Period- It shall be 18 months from date of supply of material at TPSODL site or 12 months from the date of commissioning, whichever is earlier.
- Within 30 days of Contract issuance by TPSODL, it is the responsibility of BA to get manufacturing clearance and CAT-A issued from TPSODL. In case BA does not get necessary approvals for issuance of CAT-A within mentioned timelines, then TPSODL reserve the right to cancel issued rate contract / release order and also reserve the right to forfeit EMD / PBG.
- Delivery/ Completion period:
 - i. Delivery period of the Systems and accessories shall be within 8 weeks from the date of issuance of Order/GTP Approval/Manufacturing clearance (whichever is later).
 - ii. The installation, testing and commissioning of the system with the accessories, piping, cabling, laying and required integration shall be completed within 1 month from the date of delivery of the item at site/Notice to proceed from the EIC or his authorized representative.
- TPSODL shall short close the issued Release Order / Contract, in case of any quality issues.
- Testing of VRV-HVAC systems shall be strictly done as per Indian standard. Manufacturing shall be in line with approved GTP, Design mix and TPSODL FQP.
- Business Associate (BA) shall submit applicable Performance Bank Guarantee as per GCC within 30 days of issue of rate contract. PBG applicable shall 5% of Rate Contract Value. PBG submitted, shall be released after completion of applicable guarantee period plus one month.
- All other terms and conditions of TPSODL GCC Supply shall be applicable.

7.2 Drawing Submission & 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 Terms**7.4 Warranty Period**

As per TPSODL GCC

7.5 Payment Terms

- 60% of the payment corresponding to supply part shall be paid within 45 days of submission of error free invoice upon successful delivery of the equipment, duly certified from authorized person from TPSODL.
- Balance 25% payment corresponding to supply part shall be released within 45 days after successful installation and submission of error free invoice duly certified from EIC/authorized representative of TPSODL.
- Balance 15% payment corresponding to supply part shall be released within 45 days after successful commissioning, integration and SAT of the entire systems and submission of error free invoice duly certified from EIC/authorized representative of TPSODL.
- Installation/ Integration Charges:
100% payment shall be released within 45 days after successful completion of the SITC activity for the HVAC system, upon submission of Submission of error free E- Invoice.

Documents Required for the payments:

- i. Submission of Contract Performance Bank Guarantee of 5% of Rate Contract Value.
- ii. Manufacturer's / Contractor's Guarantee certificate of Quality.
- iii. Submission of certificate on measurement book by Project Manager that materials under consideration have been erected, tested and commissioned as per technical specification, scope of work & approved drawings
- iv. Site Acceptance Test report for the entire system.
- v. Submission of handing over certificate.
- vi. MDCC Issued by TPSODL

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.

7.7 Ethics

TPSODL is an ethical organization and as a policy TPSODL 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.

TPSODL 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: mpkulkarni@tpsouthernodisha.com

8 Specification and standards

As per Annexure II

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 Southern 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.

ANNEXURE I
Schedule for Items

VRF System - High Side Quantities							
Sr. No.	Description	Qty	Units	Unit Rate in INR	GST in INR	All-inclusive Rate in INR	All Inclusive Amount in INR
1.0	SUPPLY OF VRF UNITS						
	Supply of following type VRF units with scroll compressor. The units should be complete with indoor unit, condensing unit, controls, microprocessor control panel, internal wiring, Refrigerant piping etc.						
1	Out Door Units (Top Discharge)						
a	24 HP	1	Nos.				
b	28 HP	1	Nos.				
c	32 HP	1	Nos.				
2	Indoor Units						
2.1	Hi-wall Units						
a	1.0 TR	1	Nos.				
b	0.8 TR	6	Nos.				
2.2	Four Way Cassette Units						
a	4.0 TR	7	Nos.				
b	3.2 TR	13	Nos.				
c	2.0 TR	1	Nos.				
3	Remote Controls						
3.1	Individual Remote Control						
a	Wireless Remote For all Indoor units	28	Nos.				
c	Signal Receiving unit For Four Way Cassette Units	21	Nos.				
4	Refnet	26	Nos.				
A-TOTAL Equipment price in INR including GST							

VRF System - Low Side - Bill of Quantities							
Sr. No.	Description	Qty	Units	Unit Rate in INR	GST in INR	All-inclusive Rate in INR	All Inclusive Amount in INR
B	INSTALLATION AND LOADING UNLOADING OF VRF UNITS						
1	Out Door Units						
a	24 HP	1	Nos.				
b	28 HP	1	Nos.				
c	32 HP	1	Nos.				

2	Indoor Units						
2.1	Installation of Indoor Units:						
a	VRF Four Way Cassette Units	21	Nos.				
b	VRF Hi-wall Units	7	Nos.				
3	Installation of Refnet Joints	26	Nos.				
4	Loading & Unloading of Indoor & Outdoor Units	1	Lot				
5	Refrigerant Copper Tubing						
a	VRV Refrigerant Piping using 18 G hard drawn copper along with 19mm thick for suction & 13 mm thick for Discharge line with nitrile rubber insulation and 1" thick GI Channel support & 8mm full threaded rod & PVC Supporting Under copper pipe With Suitable clamp.	220	Rmt				
b	VRV Refrigerant Piping using 20 G Soft drawn copper along with 19mm thick for suction & 13 mm thick for Discharge line with nitrile rubber Insulation and 1" thick GI Channel support & 6mm full threaded rod & PVC Supporting Under copper pipe With Suitable clamp	80	Rmt				
6	Electrical cabling						
a	Interconnecting control cabling between VRF IDU's & ODU's 2 C X 1.5 Cu Shielded Cable Sqmm with 1/2 " pvc flexible Conduit.	450	Rmt				
b	3 Core x 2.5 sqmm Flexible power cabling for VRF IDU's	84	Rmt				
c	4 Core x 6 sqmm Armoured power cabling for VRF ODU's	12	Rmt				
7	Cable Trays for Exposed Piping						
	GI 18G Perforated cable trays to run all exposed copper piping/drain piping						
a	300mm x 75mm	210	Rmt				
b	150mm x 75mm	195	Rmt				

8	M. S. Stand for VRF Outdoor units						
a	Supply, Fabrication & Installation of Structural Stand for VRF outdoor units complete with epoxy painting, vibration isolation pads, supporters, bracket etc	4	Nos				
9	Pressure Testing, Nitrogen flushing, gas charging, testing & commissioning of the air conditioning system.						
a	84 HP	84	Hp				
b	Additional Gas charging R410	50	Kg				
10	Hard PVC plumbing grade Drain piping with 9mm Nitrile insulation.						
a	25 mm Dia	84	Rmt				
b	32 mm Dia	30	Rmt				
c	40 mm Dia	15	Rmt				
B-Total of Equipment Installation including GST							
TOTAL Equipment SITC price in INR including GST (A+B)							

Sr. No.	AMC RATES (PART-C)	Qty	Unit	Unit Rate in INR	GST in INR	All-inclusive Rate in INR	All Inclusive Amount in INR
1	AMC for one year comprehensive (2nd year for Ground, 1st & 2nd Floor)	1	No				
2	AMC for one year comprehensive (3rd year for Ground, 1st & 2nd Floor)	1	No				
3	AMC for one year comprehensive (4th year for Ground, 1st & 2nd Floor)	1	No				
4	AMC for one year comprehensive (5th year for Ground, 1st & 2nd Floor)	1	No				

Detailed break-up of the price shall also be submitted along-with Price Bid.
Tentative BoQ is attached as Annexure.

Signature & Seal of the Bidder

NOTE:

- The prices shall be firm till the validity of the contract.
- Total Inclusive amount as mentioned above, shall be inclusive of all taxes, duties, freight, and insurance, loading & unloading charges. The unit price is landed price on FOR/DAP Berhampur site basis and for the complete SITC scope of the tender.
- The bids will be evaluated commercially on the overall lowest cost of mentioned BOQ above
- Anything missed out in the BOQ and scope of work entailed in this tender document but required for the successful completion of the job in all respects, shall be in the scope of the Bidder. The bidder must analyze comprehensively and include the cost of such items in bid financials before bid submission. No additional / extra payment of any kind shall be payable to BA.
- The unit price is landed price on FOR/DAP Berhampur site basis
- 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 mentioned 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.

ANNEXURE-II

**Technical Specifications & Field Quality Plan (FQP) attached
separately with the tender**

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 TPSODL'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:

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.)

S. No.	Particulars	Remarks
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 (90 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:

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 if applicable	
16	Client Testimonial/Performance Certificates if applicable	
17	Credit rating/solvency certificate if applicable	
18	Undertaking regarding non-blacklisting (On company letter head)	
19	List of trained/untrained Manpower	
20	Drawings/Documents mentioned in Sr no. 18 of the specification	

Seal of the Bidder:

Signature:

Name

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 fairer and more transparent, TPSODL 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. TPSODL 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. TPSODL will make every effort to make the bid process transparent. However, the award decision by TPSODL would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPSODL, 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 TPSODL.
6. In case of intranet medium, TPSODL shall provide the infrastructure to bidders. Further, TPSODL 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 TPSODL.
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 TPSODL 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 TPSODL.
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



NIT No.: TPSODL/OT/2022-23/078

ANNEXURE VII

Scope of Work attached separately with the tender

ANNEXURE VIII

GCC – Composite is Applicable

Attached as Annexure

Doc. Title	GENERAL CONDITIONS OF CONTRACT FOR SUPPLY ORDERS	
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GENERAL CONDITIONS OF CONTRACT

THE TATA POWER COMPANY LIMITED

**TECHNICAL SPECIFICATION
FOR
VRF System for Civil Office
at Ambapua, Berhampur**

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1.0 INTRODUCTION

This specification has been prepared for supply, erection, testing and commissioning of Air Cooled Variable Refrigerant Flow/Volume (VRF/VRV) System with all its accessories on Ground, First & Second Floors, Civil Office, Ambapua, Berhampur.

2.0 BIDDER'S QUALIFYING REQUIREMENTS

Owner's preferred list of vendor / sub vendor / OEM, is shared as part of Technical Specifications. However, if Bidder introduces additional vendor/sub vendor the same will be evaluated separately. This vendor/sub vendor evaluation / assessment shall inter-alia include (i) document verification; (ii) Bidders work / manufacturing facilities visit (iii) manufacturing capacity, details of works executed, works in hand, anticipated in future and the balance capacity available for present scope of works; (iv) details of plant and machinery, manufacturing and testing facilities, manpower and financial resources; (v) details of quality systems in place; (vi) past experience and performance; (vii) customer feedback; (viii) response to complaint. HVAC, bidder must meet all following qualifying criteria:

- 2.1.1 The bidder shall have carried out design, engineering, manufacturing, supply and supervision of installation, testing and commissioning of type tested products for a minimum 5 projects having min capacity of 50TR and above. The system supplied should have been in satisfactory commercial operation for a minimum period of 05 years as on scheduled date of the bid opening.
- 2.1.2 From amongst the above projects, minimum 3 projects should have been in commercial operation for minimum period of 2 years.
- 2.1.3 Bidder must be OEM of AC machine manufacturer, having manufacturing and testing facility in India.
- 2.1.4 The bidder shall confirm that design, manufacturing process and service support of offered equipment in Indian facility are identical to that in Bidder's parent factory without any change and approved by the parent.
- 2.1.5 Bidder must have support service Centre in India to cater after sales services.
- 2.1.6 Bidder shall agree to comply with minimum quality requirements and Contractor Safety Code of Conduct, defined in bid documents.
- 2.1.7 All offered equipment should have been successfully type tested at any of the internationally accredited laboratories in line with relevant standards. The bidder shall submit the Type test certificate of respective equipment and shall not be more than 5 years old.

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3.0 SYSTEM DESCRIPTION AND SCOPE

3.1 SYSTEM DESCRIPTION

- 3.1.1 Supply of Air Cooled VRF/VRV Air conditioning system. Outdoor condensing unit shall comprise air-cooled condenser with fan. Indoor unit shall consist of filter section, Electrical power switch board, cooling coil fan section with blowers, condensate drain pan, etc. The compressor shall be either hermetic or semi-hermetic (Scroll) as specified in data and shall be mounted on vibration absorbers. Necessary crank case heaters shall be provided.
- 3.1.2 Air cooled VRF Outdoor condensing unit shall be installed on the proper location on the buildings.
- 3.1.3 Air Conditioning system has been designed to maintain inside conditions of $24^{\circ}\text{C} \pm 1^{\circ}\text{C}$ and RH 55% +/- 5%.
- 3.1.4 Mechanical ventilation – Staircase Pressurization for all staircases and Exhaust Fans for Toilets on all floors.

3.2 SCOPE OF WORK

- 3.2.1 Design, manufacture, preservation, handling, testing at works, supply, transport to site, installation, testing and commissioning of Air Cooled VRF/VRV system along with its accessories with standard engineering practices.
- 3.2.2 For Ground, First & Second Floors, Bidder to include the different type air conditioning indoor units like wall mounted hi wall type, cassette type, ductable type, etc., refrigerant copper piping, insulation, duct mouth connection for ductable units and connection to the existing air distribution system along with complete duct cleaning of existing air distribution system.
- 3.2.3 VRF/VRV air conditioning system for Ground, First & Second Floors at Civil Office, Ambapua, Berhampur.
- 3.2.4 System Description :-
 Ground Floor: - Conference Room – 3.5 TR, Cabin – 0.8 TR, Workstation – 8.0 TR, Canteen – 6.0 TR & Main Lobby – 3.0 TR.
 First Floor: - 12 Workstation – 6.0 TR, Cabin 1 – 0.8 TR, Cabin 2 – 0.8 TR, 32 Workstation – 14.3 TR & Main Lobby – 3.2 TR.
 Second Floor :- 28 Workstation – 9.5 TR, Cubicle – 1.0 TR, Cabin 1 – 0.8 TR, Cabin 2 – 0.8 TR, Discussion Room – 0.8 TR, Main Lobby – 2.0 TR & 34 Workstation – 13.0 TR
- 3.2.5 Scope shall include the supply and installation of refrigerant copper piping and refnet joints along with insulation and communication control cabling.

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- 3.2.6 Bidder shall do complete cooling load calculations for summer, monsoon and winter for all the air- conditioned areas, in support of the equipment capacities offered by him. Bidder to consider 10% design margin over the cooling load calculations. Bidder to design the AC plant as per the tonnage requirement based on heat load calculations
- 3.2.7 The air distribution system shall be balanced for uniform flow throughout the air-conditioned spaces. Flow corrections in the ducts shall be done to ensure this uniform flow at all the air discharge points.
- 3.2.8 Providing and fixing at site all equipments associated with VRF/VRV system listed under the technical specifications.
- 3.2.9 To execute all incidental work at site including materials supply at site associated with VRF/VRV system indicated in the Technical specifications.
- 3.2.10 Any other item not mentioned in this specification, BOQ, description of item/system but required to complete that item/system will be in the scope of work of contractor.
- 3.2.11 The ductable systems included should be provided with proper air distribution system including supply/return air ducting, supports, accessories, etc. to ensure smart and uniform air flow and digital thermometers throughout the room.
- 3.2.12 Performance testing at site of complete VRF/VRV Air Conditioning system as per various technical requirements as stipulated in performance testing clause.
- 3.2.13 The VRF/VRV Air Conditioning system Contractor's scope of work shall include all items of work as per these specifications, drawings, terms and conditions of contract etc. This shall include, but not be restricted to the following
- 3.2.14 Supply, Installation, Testing & Successful commissioning of the following :
- Air Cooled VRF/VRV Air Conditioning units (Indoor cooling unit & Air Cooled Outdoor Condensing unit) with motors and Drives etc.
 - Refrigerant Piping with proper insulation.
 - Air Distribution system with Mouth connection, Canvass, Open Cell Nitrile Rubber Acoustic Insulation & Closed Cell Nitrile Rubber Thermal insulation, dampers, etc.
 - Supply air grilles / Diffusers, GSS frame for mounting of grilles / diffusers
 - Foundation bolts, Vibration Isolators, Base Frames etc. for mounting the outdoor condensing unit and indoor Cooling Unit. Check the existing MS Stands for Outdoor units as per new unit dimensions and do necessary modifications if necessary. MS stand should be with anti-corrosive paints.
 - All other works associated with above items as per specifications, drawings and conditions of contract except those specifically excluded.

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- All Minor Masonry, Carpentry and Civil works such as cutting opening in Masonry Walls, Internal Partitions, RCC Slabs etc. for Pipes and Cables and making them good the same to match existing works / décor shall be done by the Contractor, wherever asked for by the Engineer-in-Charge.
- Drainage pipe from unit to drain sump.
- Mechanical ventilation – Staircase Pressurization Fans with ductwork for all staircases and Exhaust Fans for Toilets on all floors.

3.2.15 Other activities:

- Balancing of the entire VRF/VRV Air Conditioning installation.
- Cleaning of site & handing over the works.
- Test reports, list of recommended spares, as-installed drawings, operation and maintenance manual for the entire VRF Air Conditioning installation.

4.0 CODES AND STANDARDS

4.1 All equipment, system and works covered under this specification shall comply with all currently applicable statutes, regulations and safety codes in the locality where the equipment will be installed. Also, all equipment shall conform to the latest applicable Indian or International Standards established to be equivalent or superior to the Codes and Standards specified in this specifications. In case the BIDDER offers equipment conforming to any standards other than those specified in specifications, the BIDDER shall furnish copies of standards translated in English while submitting his proposal. In the event of conflict between the Codes and Standards referred to in the specification and the requirement of this specification, the later shall govern.

4.2 The latest issue of IS codes prevailing at the time of submission of final offer shall be applicable. However, if there are any revisions during the execution of the contract, the same shall be applicable and the cost implication if any shall be mutually discussed.

ASHRAE 15 : Safety Code for Mechanical Refrigeration

ASHRAE 23 : Methods of Testing for Rating Positive Displacement Refrigerant Compressors and Condensing Units

IS 7613 : Method of Testing Panel Type Air Filters for Air-Conditioning and Ventilation Purposes

ASHRAE 33 : Method of Testing - Forced Circulation Air Cooling and Air Heating Coils

ASHRAE 52.1 : Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter

ARI 430 : Central Station Air-Handling Units

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NFPA 90A	: Installation of Air-conditioning and Ventilating
Systems IS 277	: Galvanized Steel Sheets (Plain and Corrugated)
IS 655	: Metal Air Ducts
IS 737	: Wrought Aluminium and Aluminium Alloy Sheet and Strip for general Engineering Purposes
SMACNA	: HVAC Duct Construction Standards - Metal and Flexible, HVAC AirDuct Leakage Test Manual HVAC Systems - Testing, Adjusting and Balancing
UL 555	: Fire Dampers
NBC 2016	: National building code

5.0 DESIGN REQUIREMENTS

- 5.1 Air Cooled VRF/VRV Air conditioning system shall maintain 24 deg +/- 1 deg and 55 % +/- 5 % humidity control in Office area on Ground, First and Second Floors, Civil Office, Ambapua, Berhampur. Please refer project information sheet for outside conditions. Bidder shall submit complete cooling load calculations for summer, monsoon and winter for all the air- conditioned areas, strip heater & humidifier calculation, in support of the equipment capacities offered by him. Bidder to consider 10% design margin over the cooling load calculations. Bidder to design the AC plant as per the tonnage requirement based on heat load calculations. Bidder to visit site and ascertain quantum of such work prior to submitting of bid. The existing air distribution system shall be balanced for uniform flow throughout the air-conditioned spaces. Flow corrections shall be done to ensure this uniform flow at all the air discharge points. For all installations, necessary support arrangements and fixtures shall be done.
- 5.2 Bidder to design the AC plant as per the tonnage given in scope of work. Bidder is advised to visit the site before bidding so as to understand the actual site requirement and site constraints.
- 5.3 Diversity of VRF System should be selected as per the application and it must not exceed 130%.
- 5.4 Motorized fire damper for closing the supply air duct and also switching off AC machines on actuation of fire alarm system is required. Vendor to provide cable from fire panel up to motorized dampers and also up to AC machines. Bidders should check the existing HVAC system, ducting; fire dampers installed and control panels. If required, bidder to modify or consider new control panel.
- 5.5 Refrigerant copper piping and refnet joints to be installed with communication control cabling for VRF system.
- 5.6 The air conditioning and accessories shall be designed for 24 hours operation continuously in rooms wherever required as per site.

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- 5.7 Redundancy requirement: (if any).
- 5.8 The underside of exposed roof of all air-conditioned areas will be insulated by Nitrile Rubber 50 mm thick (density 40 to 60 Kg/m³) standard material.
- 5.9 Bidder to consider interface with the fire detection system in his scope. Motorized fire damper for closing the supply & return air duct and also switching off AC machines on actuation of fire alarm system is required. Vendor to provide cable from fire panel up to motorized dampers and also up to AC machines.
- 5.10 Steel panel below ceiling suspended machine for collecting drain. This drain to be connected to nearest drain.
- 5.11 Bidder to provide fresh air to Ductable unit as well as for office areas as per inside design conditions.
- 5.12 Vendors to confirm performance of AC machine to meet design conditions given below. The system has to maintain the specified inside design conditions.
- 5.13.1 Design consideration :-
- | | | |
|-------------------|---|----------------|
| Inside Conditions | : | 24 +/- 1 deg C |
| Relative Humidity | : | 55% +/- 5% |
- 5.13.2 Fresh air 1 Air change per hour of outside air or 5 Cfm per person whichever is higher.
- 5.13.3 The system shall be integrated and installed and commissioned as a complete operational package to the satisfaction of owner.
- 5.13.4 Mechanical Ventilation system to be provided. Staircase Pressurization for Staircases and Exhaust system for toilets (20 ACPH).
- 5.13.5 The design of the HVAC system shall comply with green building compliance requirement.
- 5.14 Air distribution system comprising of galvanized steel sheet ducting, canvass connection, supply/return air grilles and necessary supports for ducting as required.
- 5.15 All necessary accessories such as clamps, gaskets, brackets, hangers, screws, nuts, bolts, washers, etc., will be included in VENDORS scope of supply.
- 5.16 Fresh air filters (HDPE cleanable and microbe), fans, dampers, louvers, Bird screen, ducting, fixing frame and necessary supports.
- 5.17 HVAC vendor shall submit complete cooling load calculations for summer, monsoon and winter for all the air-conditioned areas, strip heater & humidifier calculation, In support of the equipment capacities offered by him. They should also include solar and transmission radiation through walls, glasses, roof, etc.
- 5.18 All refrigerants used in AC system shall be CFC free only. No deviations accepted. R410 should be used.

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- 5.19 All Fans, Blowers etc. shall be interlocked with Fire Damper-Actuator such that when fire occurs the system in the particular area/adjacent areas is immediately switched off.
- 5.20 Supply Air ducting for AC system shall be designed based on Equal friction method at a friction rate of 0.8Pa/m and maximum initial velocity of 8.0m/s.
- 5.21 Return Air ducting for AC system shall be designed based on Equal friction method at a friction rate of 0.66Pa/m and maximum initial velocity of 8.0m/s.
- 5.22 For Rectangular Ducts, Aspect ratio shall not exceed 1:4.
- 5.23 Occupancy level, heat gain from occupancy, heat gain from lighting, equipments, overall heat transfer coefficient (U - value) for walls, roofs, floors, partitions, ceilings, windows etc. shall be as per latest ASHRAE standards based on the information furnished in air conditioning system cooling load design data.
- 5.24 Percentage design safety margin on room sensible heat to take care of duct leakage, fan and duct heat gain and safety factor: 10.0%.
- 5.25 Percentage design safety margin on room Latent heat to take care of duct leakage, and safety factor: 10.0%
- 5.26 Percentage design safety margin on Grand total heat to take care of return air heat duct gain, leakage, HP pump, piping loss, etc: 5%
- 5.27 Coil Bypass factor (CBF) shall be 0.12.
- 5.28 For air conditioned areas, fresh air would be provided at the rate of 1 air change per hour or 5 cfm per person in line with ASHRAE-62, whichever is higher.
- 5.29 Noise and Vibrations
- 5.29.1 The design of air conditioning and ventilation equipment and accessories shall ensure maintaining of noise and vibration levels within the limits (75dB) as per latest applicable codes and standards.
- 5.29.2 Vibration isolators of proven design shall be furnished by the Contractor for preventing transmission of vibrations from the equipment to the other neighboring equipment and structures.
- 5.29.3 The noise level inside the AC area shall conform to NC 40 Characteristics.
- 5.30 The air-distribution ducting for air-conditioning system shall be sized based on equal friction method to have an initial velocity not exceeding 8m/sec (7.5 m/s for packaged A/C system) and friction rate not exceeding 0.8 pa/m.

6.0 LAYOUT REQUIREMENTS

After award of contract BIDDER shall furnish detailed layout drawings, and cross sectional drawing of each equipment indicating material of construction, applicable code/standard etc. for purchaser's approval. VENDOR shall take care of all comments indicated in the drawing by

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purchaser. These comments will be based on specification, relevant code/standard, statutory regulations good engineering practice, layout requirement, ease in maintenance etc. for which no extra claim shall be.

7.0 OPERATIONAL AND MAINTENACEREQUIRMENT

NA

8.0 TECHNICAL PARAMETERS OF EQUIPMENT INCLUDING DATA SHEET

8.1 VRF Air conditioning System

SN	Description	Remarks
	General	
1	DESIGNATION: Hi-wall/Cassette/Ductable Indoor Units in TR & VRF/VRV System Capacity	Bidders are free to choose a Combination considering diversity.
	ODU Capacity in HP with diversity	
2	DUTY: as per Operational area requirement	
3	REFRIGERANT: R410a	
4	COMPRESSORS TYPE: Hermetic	
5	VIBRATION ISOLATORS: To be provided. Neoprene Rubber Pads	
6	MOTORS: Approved makes	
7	MOTORS CAPACITY: Bidder to indicate	
8	HUMIDIFIER: Required	
9	Mouth connection, supply/return air grilles on the air conditioner : required	
10	Flexible canvas connection: required	
11	Insulated drain piping from AC to nearest drain point Required	
12	MICRO PROCESSOR BASED CONTROL PANEL REQUIRED: YES	
13	Remote Control Required : Yes	
14	Performance Guarantee	
	Capacity of ductable /cassette unit	
	Power consumption at design condition	
15	Recommended Spares: Bidder to indicate	

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8.2 INSULATION

S N	Description	Remark
1	Pipes : refrigerant suction line piping, AC machine drain piping, chilled water piping	fire retardant quality expanded Polystyrene. Only copper pipe for refrigerant piping
2	Air-conditioning systems entire supply & return air duct	Open Cell Nitrile Rubber Acoustic Insulation & Closed Cell Nitrile Rubber Thermal insulation
3	Insulation adhesive	bitumen of grade 85/25 or 85/40 as per is 702 / cpr compound
4	Standards	
	cold insulation	IS 4671, BS 3927, BS 5608
	dual insulation	IS 8183, IS 9842
	sheathing material	IS 277, IS 737
	for testing	IS 3144, BS 476 , BS 4370
	for application	IS 14164, BS 5970

8.3 AIR DISTRIBUTION SYSTEM

S N	Description	Remark
1	Air distribution system for AC system Required: Rectangular Ducting	
2	material :GSS(zinc coating 200 or better)	
	Duct Gauge: (As Required)	
	24 G	
	22 G	
	20 G	
	18 G	
3	Grilles with volume control Damper	
4	Dampers :double acting adjustable type Quantity : As required	

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5	Damper material: CS with rust resist, primer /Al with powder coating	
	Control damper for rectangular duct with brass Material.	
	Fire Dampers: Motor Operated fire dampers : teak wood / Cs / Al/ SS by acv contractor	Operation shall be hooked up with Fire Panel in Control room

9.0 QUALITY REQUIREMENTS, INSPECTION, TESTING

- 9.1 Please refer General QA&I requirements chapter enclosed separately. Also, refer SQP (Standard Quality Plans) as minimum inspection requirements base on which bidder will submit detailed MQPs. Quality Assurance Plan (QAP), Manufacturing Quality Plan (MQP), Field Quality Plan (FQP)
- 9.2 To ensure that a well-engineered and contractually compliant system is produced, vendor shall adhere to a quality assurance program for the preparation of all contract deliverables, which includes hardware, software and documentation. The program shall provide for early detection of actual or potential deficiencies, timely and effective corrective action, and a method of tracking all such deficiencies.

10.0 PERFORMANCE REQUIREMENTS

Bidder to adhere to the following guaranteed technical parameters.

Sr no	Description	Specification	Bidder's remark
1	Temperature inside room in Deg C	24±1	
2	Humidity inside control room in %	55% ± 5%	
3	capacity of each indoor units at design conditions in TR & each outdoor units in HP	Bidder to indicate and provide calculations	
4	Power consumption in KW	Bidder to indicate	
5	static pressure external to machine mmWC	Bidder to indicate	
6	Noise level from 1 M away from indoor unit in dB	75	
7	Central Remote controller	Must be provided	

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11.0 SPARES AND SPECIAL TOOLS AND TACKLES

11.1 MANDATORY SPARES

The spares supplied shall be strictly interchangeable with parts for which they are intended for replacement.

The spares shall be treated and packed for long storage (minimum 5 years) under the climatic conditions prevailing at the site.

The start-up spares shall be delivered at the site well in time before the start-up and commissioning of the plant.

11.2 Start-Up Spares

The start-up spares are those spares which will be required during start-up and commissioning of the equipment/systems, and until Final Take Over. It is the responsibility of the bidder to supply all the necessary spares as required until the equipment/systems are handed over to the Owner. An adequate stock of start-up spares shall be available at the site such that the start-up and commissioning of the equipment/systems, performance testing and handing over the equipment/systems to the Owner will be carried out without hindrance and delay. All start-up spares which remain unused after the taking over the sub- station shall remain the property of the Owner. The Bidder shall furnish the Schedule of Start-up Spares.

11.3 Essential Spares

Essential spares are those considered necessary by the owner for first three (5) years of normal sub-station operation. A list of such spares has been listed in the below mentioned table and the same shall be included in bidder's scope. When a particular item of spares is indicated as 'percentage', it shall be considered as percentage of total number of that item of spares in the single equipment/system, unless specified otherwise and the fraction shall be rounded-off to the next higher whole number. Whenever the item of spares has been indicated as 'set' the same shall mean the supply for a single equipment/system. One set of spares for the particular equipment shall mean the total quantities of that particular spares for a single equipment e.g., 'set' of Server, set of Gateway, shall include HMI, keyboard, mouse etc. The 'set' shall however include all components required to replace that item of spares. The Owner reserves the right to buy any of the essential spare parts as considered necessary.

In case during start-up and commissioning certain essential spares are used up, the same shall be replaced within one (1) month without any commercial implications.

VENDOR shall furnish details for all essential spares as per the approved vendor document list.

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11.4 Recommended Spares

In addition to the spares mentioned above, the Bidder shall also furnish in his bid a list of recommended spares with unit prices. The Owner reserves the right to buy any of the recommended spare parts as considered necessary by him. The prices of recommended spares shall be consistent with those of start-up/essential spares. Purchase of these spare parts will be covered by a separate order or an amendment to the contract.

The Bidder shall provide a list of recommended spares for a period of five years from the date of Site Acceptance Test (SAT) and confirm that the shelf-life of these spares is such as to last for at least 7 years from the date of SAT.

11.5 SPECIAL TOOLS & TACKLES

Bidder to consider and supply special tools and tackles required for erection, commissioning and maintenance of the offered system. After commissioning of the system all tools and tackles shall be handed over to Owner's Project/Maintenance team.

All tools (both hardware and software), test instruments, simulation jigs, documents, programming equipment etc. required for Installation, Testing & Commissioning are in the scope of bidder.

All configuration cables and other specialized testing passive devices to be provided with the supply of material.

Note: bidder to indicate the list of spares which are not required.

12.0 DATA SUBMISSION BY BIDDER

Bidder shall submit the following information along with the Technical Bid for HVAC system.

12.1 ALONGWITH BID

Bidder shall submit the following information along with the Technical Bid for VRF Air Conditioning System.

12.1.1 Bidder to submit technical data sheet of the critical equipment, along with the technical offer.

12.1.2 Heat load calculations

12.1.3 Layout of AC plant indoor and outdoor units along with refrigerant pipe routes.

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12.1.4 Bidder to only provide compliance for other data sheets covered in the specification. However bidder to note that, all data sheets and detailed GTP are required to be submitted during detailed engineering for the approval and finalization by Owner.

12.1.5 Quality Assurance Plan (QAP), Manufacturing Quality Plan (MQP), Field Quality Plan (FQP)

12.1.6 General Arrangement Drawings for equipment offered.

12.1.7 Catalogues of the equipment's offered

12.2 AFTER AWARD OF CONTRACT

12.2.1 The following documents shall be submitted for Owner's approval during detailed engineering:

12.2.2 Bidder to submit all datasheets detailed GTP of the proposed BOM items during detailed engineering for the approval and finalization by Owner.

12.2.3 Ducting layout.

12.2.4 Heat load calculations

12.2.5 Other documents as may be required / applicable during detailed engineering

12.2.6 All drawings and data shall be annotated in English.

12.2.7 Bidder to note that during detailed engineering documentation related to project shall be done on Owners web based system "wrench". Vendor to submit "as built" drawings in six (6) hardcopies and 3 soft copies on reliable media of all drawings, manuals (Administration, Operation & Maintenance, Troubleshooting and Installation), Technical catalogues, Test Certificates and Acceptance Test Reports.

12.2.8 Two copies of the internal test report, FAT and SAT documents with test protocol formats shall be submitted for approval at least 4 weeks before Factory Acceptance Test. Two copies of SAT protocol shall be submitted for approval at least two weeks before Site Acceptance Test.

12.2.9 Bidder shall also furnish Original plus one copy of all System Software (OS, Application and tools) along with delivery. Bidder shall submit two copies of all the configuration, application, display, database backup of all equipment on reliable secondary media.

13.0 ANNEXURES

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**Annexure I -
SPECIFICATION
FOR
AIR DISTRIBUTION SYSTEM**

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6. **Fire Dampers**
7. **Louvers**
8. **Inspection and Testing**
9. **Balancing**
10. **Data to be submitted after award of contract**

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1. SCOPE

This specification covers the general design, materials, construction features, manufacture, shop inspection and testing at manufacturer's works, delivery at site, handling at site, installation, testing, commissioning and carrying out performance test at site of Air Distribution System.

2. CODES AND STANDARDS

The design, materials, construction features, manufacture, inspection, testing and performance of air distribution system shall comply with all currently applicable statutes, regulations, codes and standards in the locality where the system is to be installed. Nothing in this specification shall be construed to relieve the CONTRACTOR of this responsibility. In particular, the air distribution system shall conform to the latest edition of following standards.

IS 277 Galvanized Steel Sheets (Plain and Corrugated) IS 655 Metal Air Ducts
IS 737 Wrought Aluminum and Aluminum Alloy Sheet and Strip for General Engineering Purposes
SMACNA HVAC Duct Construction Standards - Metal and Flexible
SMACNA HVAC Air Duct Leakage Test Manual
SMACNA HVAC Systems - Testing, Adjusting and Balancing UL 555 Fire Dampers
ASHRAE 70 Method of Testing for Rating the Performance of Air Outlets and Inlets

3.0 MATERIAL REQUIREMENT

- 3.1 Ducting shall be fabricated from Galvanized Steel Sheets (GSS) or Aluminum (AL) sheets or Stainless Steel (SS) sheets unless specified.
- 3.2 GSS shall be of lock-forming grade, zinc coated conforming to IS 277 coating grade 200 or better.
- 3.3 AL sheets shall be of grade 31000 as per IS 737. SS sheets shall be of SS 304 as per ASTM A167.
- 3.4 All the ducts shall of LFQ (Lock Forming Quality) grade prime G.I. raw material furnished with accompanying Mill Test Certificates. Galvanizing shall be 120gms/sq.m. (total coating on both sides). The G.I. raw material should be used in coil-form (instead of sheets) so as to limit the longitudinal joints at the edges only, irrespective of cross-section dimensions.

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- 3.5 Governing Standards Unless otherwise specified here, the construction, erections, testing and performance of the ducting system shall conform to the SMACNA standards and Addendum of SMACNA.
- 3.6 All the transverse duct connectors (Flanges\Cleats) and accessories related hardware such as support system shall be zinc coated (galvanized).
- 3.7 All the ductwork including straight sections, tapers, elbows, branches, shoe pieces, collars, terminal boxes and other transformation pieces shall be factory-fabricated. Equivalency will require fabrication by utilizing the following machines and process to provide the requisite quality of ducts and speed of supply.
- 3.8 All ducts, transformation pieces and fittings shall be made on CNC profile cutters for required accuracy of dimensions, location and dimensions of notches at the folding lines. All edges shall be machines treated using lock-formers and rollers for turning up edges.
- 3.9 Duct construction shall be in compliance with 1" (250 Pa) w.g. static norms as per SMACNA. All transverse connectors shall be 4-bolt system. To avoid any leakage additional sealant shall be used. The specified class of transverse connectors and duct gauge for a given duct dimensions shall be 1" (250 Pa) pressure class. Non-toxic, AC-application grade P.E. or PVC gasketing shall be provided between all mating flanged joints. Gasket sizes shall conform to flange manufacturer's specification.
- 3.10 Duct construction & fabrication
The fabricated duct dimensions shall be as per approved drawings and all connecting sections shall be dimensionally matched to avoid any gaps. All fabricated dimensions shall be within + 1.0mm of specified dimension. To obtain required perpendicularity, permissible diagonal tolerance shall be +1.0mm per meters. Each duct pieces hall is identified by coded sticker, which shall indicate specific part number, job name, drawing number, duct sizes and gauge. Ducts shall be straight and smooth on the inside. Longitudinal seams shall be airtight. Changes in dimensions and shape of ducts shall be gradual (between 1:4 and 1:7). Plenum shall be factory fabricated panel type and assembled at site.
- 4.0 SUPPORTS**
- 4.1 All ducts shall be supported from the ceiling / slab by means of MS rods of dia 9mm with MS angle of size 40 x 40 x 5 mm at the bottom with neoprene pad in between the duct & MS angle. The ducts shall be suspended from the ceiling with the help of dash fasteners. Provision for necessary ancillary materials required for hanging the ducts

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shall be arranged by the contractor. The supports shall be taken independently to the building structure, in other words they should not be tied on to supports for light fixtures.

4.2 All duct joints shall be made right and the interior surfaces shall be smooth. Necessary gaskets of rubber or similar material shall be used to secure tightness of joints.

4.3 All MS angles, flats etc., used for flanges, stiffening, etc., shall be finished with two coats of Aluminium paint. These requirements shall apply to supporting arrangements / members also.

4.4 Minimum thickness of structural members employed for supports shall be as per IS800.

4.5 The flexible joints shall be fitted to the delivery side of AHU fans with Fire Retardant Double canvass. The length of flexible joints should not be less than 150 mm and not more than 300 mm between faces.

4.6 Where ducting is supported from ceiling / roof slab, Anchor grip bolts shall be used to fasten the suspension rods (for duct supports) to the ceiling / roof slab.

4.7 All civil works involved including the drilling of holes for fixing the grip bolts and any chipping and finishing of the ceiling / roof slab, if found unavoidable, shall be carried out by the successful contractor at no extra cost.

4.8 Elbows, bends, offsets etc., should be fabricated with a width to radius ratio of not less than 1.0 to 1.5

5.0 DIFFUSERS , GRILLS AND DAMPERS

5.1 All supply air diffusers shall be of powder coated extruded aluminium sections and removable core type. Volume control dampers shall be provided for all diffusers.

5.2 Return air diffusers shall be identical to supply air diffusers except that they do not incorporate volume control dampers.

5.3 The ceiling type diffusers shall be of 1.25 mm (18 gauges) aluminum sheets.

5.4 Supply air grilles shall be double deflection type & of powder coated extruded aluminium construction. They shall be complete with Volume control dampers of aluminium mounted on grilles. The vanes at the front shall be horizontal while those rears shall be vertical. The width of the perimeter flanges shall be 32 mm. the vanes shall be 3 mm thick and 25mm deep.

5.5 The grilles shall have opposed blade dampers of M.S. Black sheets, which shall be key operated from the grille face wherever required as approved. The damper blades shall be of 0.63 mm (24 gauge) M.S. Black sheets and shaped to form air tight joints. The frame work for dampers shall be fabricated from 0.63 mm (24 gauge) M.S. Black sheet.

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- 5.6 Return air grilles shall also be powder coated extruded aluminium construction. They shall incorporate (only) horizontal vanes, which shall be fixed. The perimeter flanges shall be 32 mm width. The vanes shall be 3 mm thick and 25mm deep. The pitch of vanes shall be 20mm.
- 5.7 All dampers shall be louvered dampers (of GI) of robust construction and tightly fitted in epoxy painted MS angle iron frame. They shall be provided with suitable links, levers and quadrants as required for their proper operation, control or setting in any desired positions. Dampers and their operating devices shall be made robust, easily operable and accessible through suitable access doors in the ducts / false ceiling. Where required, dampers shall have an indicating device, clearly showing the damper position at all times.
- 5.8 Dampers shall be placed in ducts and at every branch (whether or not indicated on the drawings) for the proper volume control and for balancing the system. Dampers shall be two gauges heavier than gauge of the large duct, and shall be rigid in construction to the passage of air.
- 5.9 All sheet metal connections, partitions and plenums required to confine the flow of air to and through the filters, fans etc., shall be constructed of 18G sheets, thoroughly stiffened with 25 mm x 25mm angle iron braces and fitted with all necessary doors as required to give access to all parts or apparatus. Door shall not be less than 450 mm x 600 mm in size. Where sheet metal ducts or sleeves terminate in wood work, brick or masonry openings, tight joints shall be made by means of closely fitted heavy flanges collars.
- 5.10 Connection of ducts to fans shall be of suitable flexible synthetic material.
- 5.11 All MS / Al. dampers shall be of robust construction and tight fitting. The design, method of handling and control shall be suitable for the locations and service required. The blades of Al construction damper shall be of aero foil design and leak proof. Suitable sturdy gears shall be used for long life.
- 5.12 Dampers shall be provided with suitable links, levers and quadrants as required for their proper operation, control or settings devices shall be made robust easily operable and easily accessible through suitable access door in the ducts.
- 5.13 Dampers shall be placed in ducts & at every branch supply or return air ducts connections, whether or not indicated in drawings for the proper volume control & the balancing of system.
- 5.14 Round or rectangular diffusers shall be of powder coated extruded aluminium construction, square, or round diffusers with removable core or adjustable flow pattern.
- 5.15 After completion of the duct work, dampers are to be adjusted and set to deliver the required amounts of air as specified on the drawings.

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- 5.16 The fire dampers shall be provided in all the main supply and return air ducts whether shown in the drawings or not. The damper shall be multi-blade type as per drawings.

6.0 FIRE DAMPERS

- 6.1 Motorized Fire Dampers shall be installed in the openings/passage formed by supply air ducts when they pass through AHU room walls as well as when passing through all floors as shown in the drawing. Fire dampers shall be motor operated with at least 90 minutes fire rating as per UL 555-1995 as tested CBRI Roorkee, India.
- 6.2 Fire dampers shall be multi leaf type. The blades and outer frame shall be made of 16G galvanized steel sheet. Fire damper assembly shall be factory fitted in a sleeve made of 18G galvanized steel sheet of minimum 400mm long. The blades shall be pivoted on both sides using chrome plated spindles in self lubricated bronze bushes. Metallic compression seal shall be provided on both ends to prevent smoke leakage. Stop seal shall be provided on top & bottom. Dual side linkage shall be provided for better structural stability. The construction of the fire damper shall allow maximum free area to reduce pressure drop and noise in the air passage.
- 6.3 Every motorized fire damper/smoke and fire damper shall be tested for in the factory and will be certified by the manufacturer in form of the test certificate. Fire damper shall also be supplied with spring locked fusible link rated for 72°C (UL stamped) to close fire damper in event of rise in duct temperature.
- 6.4 The actuator used shall be maintenance free direct coupled spring return type suitable to work on 24V electric supply. The torque rating of the actuator shall exceed at least by 15% over torque required to open/close the damper. The selection of actuator size shall be the responsibility of the manufacturer of the fire damper. Spring return time shall be 20 seconds or less at ambient temperature. The tamper proof housing with IP-54 protection rating.
- 6.5 The control panel shall have at least following features:
- Power on indicating lamps with 230V/24V Transformer.
 - Damper close & open indication.
 - Rest push button
 - Push button for manual running of actuator for periodic inspection.
 - Auxiliary contacts 24V & 230V

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- Contact points to receive signal from smoke defector/fire alarm panel.
- Access door will be provided in the duct before each fire damper.

6.6 The actuator used shall be maintenance free direct coupled spring return type suitable to work on 24V electric supply. The torque rating of the actuator shall exceed at least by 15% over torque required to open/close the damper. The selection of actuator size shall be the responsibility of the manufacturer of the fire damper. Spring return time shall be 20 seconds or less at ambient temperature. The tamper proof housing with IP-54 protection rating.

6.7 Fusible type fire dampers shall be provided for return air ducts wherever required as shown on the drawings. These shall be fusible link type with at least 90 minutes fire rating as tested by CBRI Roorkee and shall be multi leaf type. The blades & outer frame shall be made of 16 G galvanized steel sheet. Assembly shall be factory fitted in a sleeve made of 18 gauge galvanized steel sheet of minimum 400mm long. The blades shall be provided on both sides using chrome plated spindles in self lubricated bronze bushes. Metallic compression seal shall be provided on both ends to prevent smoke leakage. The construction of the fire damper shall allow maximum free area to reduce pressure drop & noise in the air passage. Fire damper shall also be supplied with spring locked fusible link with melting temperature of 68°C.

7.0 LOUVERS

7.1 The louvers shall consist of parallel metallic blades. The louvers shall be provided with fixed type blades or adjustable opening type blades as specified in data sheet A.

7.2 The width and angle of blades shall be such as to minimize the entry of water and snow inside. The minimum percentage of free area shall be 35% to 37%. The minimum projected width of blades in horizontal plane shall be 150 mm with the blades inclined at minimum 35 degrees. The blades shall be overlapping each other with maximum 30 mm height in vertical plane between two blades. Blades shall be bent back at edges and ridged to provide stiffness and prevent water from travelling up. Width of one bank of louvers shall be 1000 mm maximum. In case width is more, mullions shall be provided to restrict width to less than 1000 mm.

7.3 For adjustable type louvers, mechanism of blade angle adjustment shall be designed in such a manner that maximum effort required shall not exceed 20 Kgf.

7.4 The blade linkage rod shall be of cold rolled steel and minimum 8 mm diameter. The number of blade linkage rod shall be one (1) for every 1000 mm width of louvers or part thereof.

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- 7.5 The louvers shall be located at a minimum 350 mm height above the ground or roof level to minimize the pick-up of dust and the probability of snow piling up and subsequently entering the louver during winter operation. The louvers shall be located in such a manner that cross contamination from other exhaust does not occur.
- 7.6 Bird screen of 10 mm² and minimum 16 G wire mesh shall be provided on outer face of louvers, wherever the louvers are exposed to atmosphere.
- 7.7 The frame of louver shall have a sill extension of 50 mm to provide drip ledge so that rain water drains outside.
- 7.8 The frame of louver shall have suitable frame work for installation of filter and damper.

8.0 INSPECTION AND TESTING

The ducts, branches, bends etc. shall be inspected and the joints and connection shall be checked before these are assembled in position. After assembly the system shall be checked for tightness, vibration and noise.

9.0 BALANCING

The air distribution system shall be tested and balanced so that the requisite temperature and air flow are maintained throughout the space to be air-conditioned or ventilated. Complete air balance report shall be submitted for scrutiny and approval. Splitter damper and VCD adjustments shall be permanently marked after air balancing is complete so that these can be restored to their correct position if disturbed at any point of time.

10.0 DATA TO BE FURNISHED AFTER THE AWARD OF CONTRACT

- 10.1 Quality Assurance Plan (QAP)
- 10.2 General arrangement drawing showing all diffusers, grilles, dampers, fire dampers, plenums, hoods, access doors, flexible connections and all other accessories. Duct supports and transverse joint locations shall be marked on the drawing.
- 10.3 Cross-sectional drawings of volume control dampers, fire dampers, access doors etc. with part list, materials of construction and installation details

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Datasheet: Air distribution system

S N	Description	Remark
1	Air distribution system for AC system Required: Rectangular Ducting	
2	material :GSS(zinc coating 200 or better)	
	Duct Gauge: (As Required)	
	24 G	
	22 G	
	20 G	
3	Grilles with volume control Damper	
4	Dampers :double acting adjustable type Quantity : As required	
5	Damper material: CS with rust resist, primer/al with powder coating	

Fire Dampers: Motor Operated/Fusible link type

Fire dampers: teak wood / Cs / Al/ SS by acv contractor Operation shall be hooked up with Fire Panel in Control room

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**Annexure II -
SPECIFICATION
FOR
VARIABLE REFRIGERANT
FLOW SYSTEM (VRF/VRV)**

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2. **codes & standards**
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4. **Electrical**
5. **Constructional features**
6. **Specific instructions to bidders**
7. **Submission by bidders**
8. **Performance guarantee**

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1.0 SCOPE

- 1.1 This specification covers the general design, materials, construction features, manufacture, shop inspection and testing at manufacturer's works, delivery at site, handling at site, installation, testing, commissioning, performance testing and handing over of Air Cooled VRF/VRV Air Conditioning System.
- 1.2 Real time based sequential panel, timer control with auto change over between units shall be provided for the AC units as per requirement, so that one by one machine will come in operation for set time duration. In case of failure of one machine, next machine will come in operation. In case of additional load, additional AC machine next in the sequence will also come in operation.
- 1.3 Motorized fire damper for closing the supply air duct and also switching off AC machines on actuation of fire alarm system to be provided. Vendor to provide cable from fire panel upto motorized dampers and also up to AC machines.
- 1.4 Installation of supply air duct or in line supply air fan for fresh air to be given in AC plant room or in office areas.
- 1.5 Lifting & shifting of, pipes, VRF/VRV AC machines etc. at site is the scope of bidder.

2.0 CODES AND STANDARDS

The design, materials, construction, manufacture, inspection, testing and performance of ductable split air-conditioners shall comply with all currently applicable statutes, regulations and safety codes in the locality where the equipment is to be installed. Nothing in this specification shall be construed to relieve the CONTRACTOR of this responsibility. In particular, the ductable split air-conditioners shall conform to the latest editions of following standards:

ASHRAE 15	:	Safety Code for Mechanical Refrigeration
ASHRAE 37	:	Methods of Testing for Rating Unitary Air-Conditioning and Heat Pump Equipment
ASHRAE 23	:	Methods of Testing for Rating Positive Displacement Refrigerant Compressors and Condensing Units
IS 7613	:	Method of Testing Panel Type Air Filters for Air-Conditioning and Ventilation Purposes
ASHRAE 33	:	Method of Testing - Forced Circulation Air Cooling and Air Heating Coils

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ASHRAE 52.1	:	Gravimetric and Dust-Spot Procedures for Testing Air Cleaning Devices Used in General Ventilation for Removing Particulate Matter
ARI 430	:	Central Station Air-Handling Units
NFPA 90A	:	Installation of Air-conditioning and Ventilating Systems IS 277
	:	Galvanized Steel Sheets (Plain and Corrugated)
IS 655	:	Metal Air Ducts
IS 554 – 1985	:	(Reaffirmed 1996) Dimensions for pipe threads where pressure tight joints are required on the threads.
ISS 659-1964	:	(Reaffirmed 1991) Air Conditioning (Safety Code)
IS 660-1963	:	(Reaffirmed 1991) Mechanical Refrigeration (Safety Code)
IS 732-1989	:	Code of practice for electrical wiring
IS 822-1970	:	(Reaffirmed 1991) Code of procedure for inspection of welds.
IS 2379-1990	:	Colour code for the identification of pipelines.
IS 2551-1982	:	Danger notice plate
IS 737	:	Wrought Aluminum and Aluminum Alloy Sheet and Strip for general Engineering Purposes
SMACNA	:	HVAC Duct Construction Standards - Metal and Flexible, HVAC Air Duct Leakage Test Manual HVAC Systems - Testing, Adjusting and Balancing
UL 555	:	Fire Dampers
IS 554 – 1985	:	(Reaffirmed 1996) Dimensions for pipe threads where pressure tight joints are required on the threads.
IS 13947-1993	:	(Part – V) Control Circuit Devices

3.0 INSIDE DESIGN CONDITIONS

Inside Conditions: 24 +/- 1 degC

Fresh air: 1 Air change per hour of outside air or 5 Cfm per person whichever is higher.

4.0 AIR COOLED VARIABLE REFRIGERANT FLOW UNITS

Units shall be air cooled, variable refrigerant flow air conditioner consisting of one or more outdoor units and multiple indoor units. Each indoor units having capability to cool independently for the requirement of the rooms. The indoor units on any circuit can be of different type and also controlled individually. Ceiling mounted cassette type (Multi flow), wall munted hi-wall type and ceiling mounted ductable type, etc. of indoor units shall be connected to the system.

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Compressor installed in each modular outdoor unit shall be equipped with minimum 2 compressors for higher reliability, improved life, better backup and duty cycling purpose. The system shall be capable of changing the rotating speed of inverter compressor by inverter controller to follow variations in cooling and heating load. Also it is required that the proposed VRF system shall be made of different modules with multiple compressors, the system will continue to function in case of units break down or in case of one inverter compressor malfunction in the module. Outdoor unit shall be suitable for mix match connection of all types of indoor units. The refrigerant piping between indoor units and outdoor unit shall be possible to extend up to 175m with maximum 50m level difference without any oil traps. Both indoor units and outdoor unit shall be factory assembled, tested and filled with first charge of refrigerant before delivering at site.

4.1 Outdoor Unit

The outdoor unit shall be factory assembled, weather proof casing, constructed from heavy gauge mild steel panels and coated with baked enamel finish. The unit should be completely factory wired, tested with all necessary controls. Each modular inverter outdoor shall be DC twin rotary/scroll hermetic compressor. The outdoor units shall have multiple compressors with multi step capacity control and shall be able to operate in case of failure of one of the compressors. The outdoor units shall be capable of connecting all types of indoor units. They shall be provided with duty cycling and starting sequence changing facility for multiple inverter compressor and multiple outdoor units working in one system. The outdoor units shall be of modular construction and should be able to install side by side and shall be provided with microprocessor based control panel with provision for integration with Building Management System using BACNET/MODBUS protocol. The outdoor units should have anti-corrosion paint free gal barium base plate for easy mounting of unit. The outdoor unit shall be compatible for three phase 415V 50 Hz AC supply. All outdoor units shall have minimum two compressors so that in the event of failure of one compressor, other can work. The outdoor unit shall be delivered with first charge of refrigerant. The outdoor unit should be fitted with low noise, aero spiral design fan with aero fitting grill for C spiral discharge airflow to reduce pressure loss and should be fitted with DC fan motor inverter type for better efficiency. The condensing unit shall be designed to operate safely when connected to multiple cassette units.

Note: The Outdoor machines shall be preferably compact machines for Purpose of space saving and smaller foot print shall be preferred.

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4.2 Compressor

The compressor shall be highly efficient hermetic scroll type with DC inverter control capable of changing the speed in accordance with load requirements inside the building. The refrigerant used shall be R 410a. All parts of the compressor shall be lubricated and shall have oil separator for stable operation. Oil heater also shall be provided. Forced lubrication may also be employed. Oil heater shall be provided in the compressor casing.

4.3 Heat Exchanger

The heat exchanger shall be constructed with copper tubes mechanically bonded to aluminum fins to form a cross fin coil. The aluminum fins shall be covered by anti-corrosion resin film. The unit should be with e-pass heat exchanger to optimize the path of heat exchanger and for better efficiency of condenser. The unit shall be provided with necessary number of direct driven low noise level propeller type fans arranged for vertical discharge. Each fan shall have a safety guard.

4.4 Refrigerant Circuit

The refrigerant circuit shall include liquid & gas shut-off valves and a solenoid valves at condenser end. The equipment must have in built refrigerant stabilization control for proper refrigerant distribution. All necessary safety devices shall be provided to ensure the safely operation of the system. Refrigerant should be R410a Only. The refrigerant piping between indoor and outdoor units shall be constructed from soft seamless up to 19.1mm and hard drawn copper pipes above 19.1 mm with copper fittings and silver soldered joints. All joints in copper piping shall be sweat joints using low temperature brazing and or silver solder. After the installation, the piping shall be pressure tested using nitrogen at 20kg/cm² and 10 kg/cm² for low side. The sizing and flow of refrigerant shall be designed as specified by the manufacturer. All refrigerant pipelines shall be properly supported and anchored to the building structure using steel supports/brackets/clamps of adequate size to support the load.

4.5 Safety Devices

All necessary safety devices shall be provided to ensure safe operation of the system. The outdoor units shall be equipped with the following safety devices.

High pressure switch.

Over load relay

Fusible plug

Overload protector for inverter / Fan drive

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4.6 Oil Recovery System

Unit shall be equipped with an oil recovery system to ensure stable operation with long refrigeration piping lengths. The system must be provided with oil balancing circuit to avoid poor lubrication.

4.7 Indoor Unit

This section deals with supply, installation, testing, commissioning of indoor units confirming to general specification and suitable for the duty selected. The type, capacity and size of indoor units shall be as specified in detailed Bill of Quantities.

4.8 Ceiling Mounted Cassette Type Unit

The indoor units shall be ceiling mounted cassette type with multi flow. It shall have electronic expansion control valve which controls refrigerant flow rate in respond to load variations of the room. The fan shall be of the dual suction multi blade type statically and dynamically balanced to ensure low noise and vibration free operation. The cooling coil shall be made out of seamless copper tubes and have continuous aluminum fins. For ceiling mounted cassette unit, it shall include pre filter fan section and DX coil section. The housing of the unit shall be powder coated galvanized steel. The body shall be light in weight and shall be able to suspend in four corners. The unit shall have external attractive panel for supply and return air. Unit shall have four way supply air grille on sides and return air grille in the centre. Each unit shall be provided with a high lift drain pump. All the indoor units, regardless of their difference in capacity should have same decorative panel size for uniform aesthetic view.

4.9 Ceiling Mounted Ductable Type Unit

Unit shall be suitable for ceiling mounted type. The unit shall include pre filter, fan section & DX coil section .The housing of unit shall be light weight powder coated galvanized steel. The unit shall have high static fan for Ductable arrangement. The address of the indoor unit shall be set automatically in case of individual and group control. In case of centralized control, it shall be set by liquid crystal display remote controller. The fan shall be dual suction, aerodynamically designed turbo, multi blade type, statically & dynamically balanced to ensure low noise and vibration free operation of the system. The fan shall be direct driven type, mounted directly on motor shaft having supported from housing. The cooling coil shall be made out of seamless copper tubes and have continuous aluminum fins. The fins shall be spaced by collars forming an integral part. The tubes shall be

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staggered in the direction of airflow. The tubes shall be hydraulically/ mechanically expanded for minimum thermal contact resistance with fins. Each coils shall be factory tested at 21kg/sqm air pressure under water. Unit shall have cleanable type filter fixed to an integrally moulded plastic/aluminium frame. The filter shall be easily serviceable. Each indoor unit shall have computerized PID control for maintaining design room temperature. Each unit shall be provided with microprocessor thermostat for cooling or cooling and heating. Each unit shall be with wired LCD type remote controller. The remote controller shall memorize the latest malfunction code for easy maintenance. The controller shall have self- diagnostic features for easy and quick maintenance and service. The controller shall be able to change fan speed and angle of swing flap individually as per requirement.

4.10 Wall Mounted Hi-wall Type Unit

The indoor units shall be wall mounted hi-wall type. It shall have electronic expansion control valve which controls refrigerant flow rate in respond to load variations of the room. The cooling coil shall be made out of seamless copper tubes and have continuous aluminum fins. The unit shall include pre filter fan section and DX coil section. The body shall be light in weight and shall be able to mount on its plate on the wall using screws. The unit shall have external attractive body for supply and return air. Unit shall have supply air flap and return air grille on top. All the indoor units, regardless of their difference in capacity should have same uniform aesthetic view.

4.11 Centralized type Remote Controller

A multifunctional compact centralized controller with provision for integration to BMS shall be provided with the system.

It shall be able to control up to 64 groups of indoor units with the following functions: -

- a) Starting/stopping of Air-conditioners as a zone or group or individual unit.
- b) Temperature settling for each indoor unit or zone.
- c) Switching between temperature control modes, switching of fan speed and direction of airflow, enabling/disabling of individual remote controller operation.
- d) Monitoring of operation status such as operation mode & temperature setting of individual indoor units, maintenance information, and troubleshooting information.
- e) Display of air conditioner operation history.
- f) Daily management automation through yearly schedule function with possibility of various schedules.

The controller shall have wide screen user friendly display and can be wired.

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5.0 ELECTRICAL

- 5.1 A terminal box on starter panel suitable for connecting external 3 phase, 4 wire cable shall be provided.
- 5.2 The unit shall be provided with single phase preventers for all motors.
- 5.3 Microprocessor based starter panel shall be provided separately for each unit.
- 5.4 The starter panels for indoor and outdoor units shall be pre-wired at the factory and shall be complete with starters for all motors.
- 5.5 Wiring between starter panel and indoor / outdoor units shall be carried out at site.
- 5.6 Cordless remote controller shall be provided if specified in data sheet- A. Remote controller shall have ON/OFF & temperature control option.

6.0 SPECIFIC INSTRUCTIONS TO BIDDERS

- 6.1 The BIDDER shall furnish all the information called for in various schedules failing which the bid will be considered incomplete & the purchaser reserves the right to reject the bid.
- 6.2 The BIDDER shall carefully study all sections of this specification and indicate all deviations in the Schedule of Deviations. If deviation sheets are not submitted in the Schedule of Deviations sheets, it will be presumed that the offer conforms in all respects to the specification and the purchaser reserves the right to reject the same. Bids as such without any further reference to the BIDDER. If the BIDDER indicates any comments on specification elsewhere in the Bid, the same will not be accepted as the basis for extra claims for conformity with the specification after award of the Contract. No deviations post bid will be entertained.
- 6.3 The scope of equipment to be supplied under this contract is detailed hereinafter.
- 6.4 The BIDDER shall prepare and submit three copies of the system "Operation, Maintenance and installation Manual" within the time schedule specified for the contract and before handing over the system for operation.
- 6.5 BIDDER shall indicate necessary start-up spares required during erection, testing and commissioning and included in the quoted price.
- 6.6 The BIDDER shall furnish make, type, and model number etc. of all bought-out components / items along with his Bid as per approved vendor list. All other vendors shall be subject to the owner's approval.

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- 6.7 After award of contract BIDDER shall furnish detailed layout drawings, and cross sectional drawing of each equipment indicating material of construction, applicable code/standard etc. for purchaser's approval. VENDOR shall take care of all comments indicated in the drawing by purchaser. These comments will be based on specification, relevant code/standard, statutory regulations good engineering practice, layout requirement, ease in maintenance etc. for which no extra claim shall be applicable after placement of order.
- 6.8 BIDDER shall furnish detailed bar chart for the scope of services within a week after the date of issue of Letter of Intent/P.O.

7.0 SUBMISSIONS BY BIDDERS

- 7.1 Quality Assurance Plan (QAP)
- 7.2 Detailed dimensional drawing of the air-conditioners showing all the components, accessories, materials, gauge of cabinet and installation details.
- 7.3 All data and information shall be included datasheets or other drawings and documents.
- 7.4 Equipment, ducting and refrigerant piping layout along with Technical Bid.
- 7.5 Detailed General Arrangement / dimensional drawings with parts list and materials of construction.
- 7.6 All bought-out components like compressors, condensers, fans, humidifier, filter, heating coil, cooling coil etc.
- 7.7 Compressor rating charts, performance curves and write up on capacity control.
- 7.8 Fan rating charts and performance curves
- 7.9 Electrical wiring drawings
- 3.1.1 Dully filled in schedules.
- 3.1.2 Layout of AC plant indoor and outdoor units
- 3.1.3 Detailed description of the equipment and brochures with regard to technical details
- 3.1.4 Various submittals as called for in the specification.

In absence of any above documents bid will be considered as incomplete and will not be considered for further evaluation. Also, no subsequent information will be entertained.

4.0 PERFORMANCE GUARANTEE

Performance guarantees for the VRF/VRV Air Conditioning System shall be as specified in tender specifications.

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SN	Description	Remarks
	General	
1	DESIGNATION: Hi-wall/Cassette/Ductable Indoor Units in TR & VRF/VRV System Capacity in HP with diversity	Bidders are free to choose a Combination considering diversity.
2	DUTY: as per Operational area requirement	
3	REFRIGERANT: R410a	
4	COMPRESSORS TYPE: Hermetic	
5	VIBRATION ISOLATORS: To be provided. Neoprene Rubber Pads	
6	MOTORS: Approved makes	
7	MOTORS CAPACITY: Bidder to indicate	
8	HUMIDIFIER: Required	
9	Mouth connection, supply/return air grilles on the air conditioner : required	
10	Flexible canvas connection: required	
11	Insulated drain piping from AC to nearest drain point Required	
12	MICRO PROCESSOR BASED CONTROL PANEL REQUIRED: YES	
13	Power Consumption in kW	
14	Noise level from 1 M away from indoor unit in dB	

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**Annexure III -
SPECIFICATION
FOR
VENTILATION FANS**

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1.0 SCOPE

The design, materials, construction, manufacture, inspection, testing and performance of ventilation fans shall comply with all currently applicable statutes, regulations and safety codes in the locality where the equipment is to be installed. The equipment shall also conform to the latest applicable Indian or equivalent standards. Other international standards are also acceptable, if these are established to be equal or superior to the listed standards. Nothing in this specification shall be construed to relieve the CONTRACTOR of this responsibility.

2.0 CODES AND STANDARDS

2.1 The design, materials, construction, manufacture, inspection, testing and performance of ventilation fans shall comply with all currently applicable statutes, regulations and safety codes in the locality where the equipment is to be installed. Nothing in this specification shall be construed to relieve the CONTRACTOR of this responsibility. In particular, the fans shall conform to the latest editions of following standards:

ASHRAE 15	:	Safety Code for Mechanical Refrigeration
IS 7613	:	Method of Testing Panel Type Air Filters for Air-Conditioning and Ventilation Purposes
ASHRAE 52.1	:	Gravimetric and Dust-Spot Procedures for Testing Air Cleaning Devices Used in General Ventilation for Removing Particulate Matter
ARI 430	:	Central Station Air-Handling Units
NFPA 90A	:	Installation of Air-conditioning and Ventilating Systems
	:	Galvanized Steel Sheets (Plain and Corrugated)
IS 655	:	Metal Air Ducts
IS 737	:	Wrought Aluminum and Aluminum Alloy Sheet and Strip for general Engineering Purposes
SMACNA	:	HVAC Duct Construction Standards - Metal and Flexible, HVAC Air Duct Leakage Test Manual HVAC Systems - Testing, Adjusting and Balancing
UL 555	:	Fire Dampers

3.0 AXIAL FANS - CONSTRUCTIONAL FEATURES

3.1 Impeller: The impeller shall have blades of an airfoil design. Blades shall be mounted on streamlined hub. Impellers with fabricated blades are acceptable up to 450 mm impeller

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diameter. The impeller shall be statically and dynamically balanced. Adjustable pitch blades shall be provided if specified in data sheet. Single piece cast aluminium or steel impeller shall be with blades of aerofoil design to give maximum efficiency and shall vary in twist and width from hub to tip to effect equal air distribution along the blade length. Maximum clearance between blade tip and the fan housing at the specified speed shall be 5 mm. Impellers blades shall be whirl tested to a speed 25% above the design operating speed. Extended grease leads for external lubrication shall be provided. The fan blade shall be adjustable type so that actual air flow can be achieved at site as per indicated in Drawings & BOQ. Fan velocity shall not exceed 2200 FPM.

- 3.2 Casing: Casing shall be provided with suitable supports. Access door shall be provided in the casing for easy access to motor and impeller. Suitable arrangement for mounting of motors shall be provided. Casing shall be constructed of 14 gauge sheet steel, properly reinforced for rigidity. Fan casing, motor mount and straightening vanes shall be of welded steel construction motor mounting plate shall be minimum 20 mm thick and machined to receive motor flanges. Casing shall be provided with two nos. wide, hinged doors which open easily. Inspection doors with handle and neoprene gasket shall be provided. Casing shall have flanged connection on both ends for ducted applications. Support brackets for ceiling suspensions shall be welded to casing for connection to hanger bolts. Straightening vanes shall be aerodynamically designed for maximum efficiency by converting velocity pressure to static pressure potential and minimizing turbulence. Casing shall be bondorized, primed and finish coated with enamel paint.

- 3.3 Drive & Motor: Drive motor shall be rated at least 15 % higher than the power requirement at duty point or 10 % higher than the maximum power requirement at selected speed, whichever is higher. Starting torque requirements of fan shall also be considered while selecting the motor. All equipment in this area including motors and all electrical equipment supplied shall be of flame proof construction, all wiring carried out in this plant shall be intrinsically safe using flame proof accessories.

Motor shall be squirrel cage, totally enclosed, fan cooled, and constant speed and motor nameplate horsepower shall be more than brake horse power by a minimum of 10%. Motor speed shall not exceed 1450 R.P.M (4 pole). The fan and motor combination selected for particular requirement shall be of the most efficient type so that sound level and energy consumption is minimum. Motor conduit box shall be mounted on exterior of the casing. Wires from the motor to the conduit box shall be protected from the air stream by enclosing in a flexible metal conduit. The motor shall have „E“ class insulation.

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For duct/wall mounted fans, the impeller shall be mounted directly on the motor. Drive unit and impeller shall be totally enclosed inside the duct. For Floor/Ceiling Mounted Fan, the fan shall be provided with belt drive and adjustable motor sheave, standard sheet steel belt guard with vented front for heat dissipation. Belt shall be of the oil resistant type.

- 3.4** Noise and Vibration: Noise level produced by any rotating equipment individually or collectively shall not exceed 85 dB (A) measured at a distance of 1 meters from the source in any direction. The overall vibration level shall be as per zones A and B of ISO 10816-1. Balance quality requirement shall be G 6.3 conforming to ISO 1940/1.

Base shall be provided for each fan. Base for both fan and motor shall be built as an integral part and shall be mounted on a concrete foundation through spring type of vibration isolators. The concrete foundations shall be at least 15 cm above the finished floor level and shall be further isolated from the structural floor through 5 cm. Thick layers of sand all around, topped with bitumen. In case ceiling hung fan within the ceiling shall be provided Vibration Isolation Suspension (VIS) shall be provided in each of string.

4.0 CENTRIFUGAL FANS - CONSTRUCTIONAL FEATURES

- 4.1** Scroll: Casing shall be welded construction fabricated with 14 gauge M.S. Sheet with spray galvanization. Minimum zinc deposition shall conform to class 375 of relevant latest IS code. The minimum thickness of casing shall not be less than 3 mm. The fan scroll shall be attached to the side plate by means of continuous lock seam. 18 gauge galvanized wire mesh inlet screens of 50 mm sieves shall be provided on both inlets. Housing shall be provided with standard clean out and door with quick locking tension handles and neoprene gasket. Rotation arrow shall be clearly marked on the housing.
- 4.2** Impeller: The impeller shall have die-formed, forward/backward curved blades, welded to the rim and back plates to have a non-over loading characteristic of the fan. Rim shall be spun to have a smooth contour if required, intermediate stiffening rings shall be provided. Shaft sleeves shall be furnished wherever required. The impeller, pulley and housing shall be statically and dynamically balanced. Fan velocity shall not exceed 2200 FPM.
- 4.3** Shaft: Shaft shall be constructed of SAE 1040 steel turned, ground and polished. Shaft sizes shall be carefully calculated and designed such that the maximum operating speed (RPM) shall not exceed 75% of the first critical speed.

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4.4 Bearing: The bearing shall be self-aligning, heavy duty ball, roller or sleeve bearings. Bearing shall be selected for quiet operation and shall be grease pack, pillow block type. Bearings shall be maintenance free with permanently lubricated sealed ball bearing type. Inlet guard shall be spun to have a smooth contour. Inlet screen if provided shall be of galvanized wire mesh of 25 mm square.

4.5 Base Plate

Base plate shall be provided for each fan. Base for both fans and motor shall be built as an integral part and shall be mounted on a concrete foundation through cushy foot mountings for vibration isolation. The concrete foundation shall be at least 150 mm above the finished floor level and shall be further isolated from structural floor through 50 mm thick layers of sand all around, topped with bitumen.

4.6 Drive & Motor: Fan motor shall be of squirrel cage type totally enclosed fan cooled motor, suitable for $415 \pm 10\%$ volts, 50 Hz, 3 phase. Horse power indicated on the name plate of motor shall be more than brake horse power by at least 10% and shall have sufficient torque available for starting and continuous operation. Motor R.P.M. shall not exceed 1450 R.P.M. The fan motor combination selected for the particular requirement shall be of the most efficient type (i.e. smallest horse power) so that power consumption and noise level may be minimized. The motor shall have „F“ class insulation and four pole. These fan shall be provided with V-belts. All belt shall be selected for 150% rated HP. All V-belt shall be supplied with removable belt guards that do not impede the air flow to the fan inlet. There shall be a minimum of two belts per drive. Fan with motor shall be mounted on a concrete foundation through spring type of spring isolators vibration.

5.0 INLINE FANS - CONSTRUCTIONAL FEATURES

In-line fans shall be Centrifugal type direct/belt driven complete with motor, belt guard, motor mount and vibration isolation type suspension arrangement mounted within/end of duct.

5.1 Casing: Shall be constructed of 14 gauge sheet steel. Fan casing, motor mount and straightening vane shall be of welded steel construction. Motor mounting plate shall be minimum 20 mm. thick and machined to receive motor flange. Casing shall be provided with two Nos. wide hinged doors which open easily. Inspection doors with handle and neoprene gasket shall also be provided. Casing shall have flanged connections on both ends for ducted applications. Support brackets for ceilings suspensions shall be welded to the casing for connection to hanger bolts. Straightening vanes shall be aerodynamically designed for maximum efficiency by converting velocity pressure to

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static pressure potential and minimizing turbulence. Casing shall be bonderized, primed and finish coated with enamel paint.

- 5.2 Rotor: Hub and blades shall be cast aluminum construction. Blades shall be die formed Aerofoil section for maximum efficiency and shall vary in twist and width from hub to top to effect equal air distribution along the blade length. Fan blades mounting on the hub shall be statically and dynamically balanced. Maximum clearance between blade tip and fan housing at the specified duty blade setting shall be 5 mm. Rotor blades shall be whirl tested to speed of 25% above the design operating speed and certification of the test shall be provided by the manufacturer. Extended grease leads for external lubrication shall be provided. Rotor shall be statically and dynamically balanced. The fan pitch control shall be manually readjusted at site upon installation for obtaining actual air flow values as specified and quoted. The impeller blade shall be of adjustable type blade.

- 5.3 Drive & Motor: Shall be squirrel cage, totally enclosed, fan cooled standard round frame, constant speed, continuous duty, single winding, suitable for 415/220 +/- 10% volts, 50 cycles, 3/1 phase power supply, provided with class "B" insulation. Motor nameplate horsepower shall be more than brake horsepower by a minimum of 10%. Motors shall be specially designed for quiet operation and motor speed shall not exceed 1500 RPM. For maximum efficiency or minimum horsepower. Motor conduit box shall be mounted on exterior of a casing, and lead wires from the motor to the conduit box shall be protected from the air stream by enclosing in a flexible metal conduit. The fan shall be provided with direct/belt drive within housing. The assembly of fan and motor shall be suspended from the ceiling by spring type vibration isolators.

6.0 EXHAUST FANS

- 6.1 The exhaust fans shall be propeller type with steel hub and blades, mounted directly on the shaft of a totally enclosed motor.
- 6.2 The fan blades shall be of pressed steel of aerofoil design for high efficiency and static pressure.
- 6.3 The mounting frame shall be of cast /sheet steel brackets to connect the frame, with the fan/motor assembly. Rubber mounts shall be provided between the mounting frame and the mounting brackets.
- 6.4 The fan motor shall be totally enclosed squirrel cage type.
- 6.5 All wall mounted exhaust fans shall be provided with gravity back draft louvers.

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7.0 LOUVERS

- 7.1 The louvers shall consist of parallel metallic blades. The louvers shall be provided with fixed type blades or adjustable opening type blades as specified in data sheet
- 7.2 The width and angle of blades shall be such as to minimize the entry of water and snow inside. The minimum percentage of free area shall be 35% to 37%. The minimum projected width of blades in horizontal plane shall be 150 mm with the blades inclined at minimum 35 degrees. The blades shall be overlapping each other with maximum 30 mm height in vertical plane between two blades. Blades shall be bent back at edges and ridged to provide stiffness and prevent water from travelling up. Width of one bank of louvers shall be 1000 mm maximum. In case width is more, mullions shall be provided to restrict width to less than 1000 mm.
- 7.3 For adjustable type louvers, mechanism of blade angle adjustment shall be designed in such a manner that maximum effort required shall not exceed 20 Kgf.
- 7.4 The blade linkage rod shall be of cold rolled steel and minimum 8 mm diameter. The number of blade linkage rod shall be one (1) for every 1000 mm width of louvers or part there-of.
- 7.5 The louvers shall be to minimize the pick-up of dust. The louvers shall be located in such a manner that cross contamination from other exhaust does not occur.
- 7.6 Bird screen of 10 mm² and minimum 16 G wire mesh shall be provided on outer face of louvers, wherever the louvers are exposed to atmosphere.
- 7.7 The frame of louver shall have a sill extension of 50 mm to provide drip ledge so that rain water drains outside.
- 7.8 The frame of louver shall have suitable frame work for installation of filter and damper, if specified in data sheet.
- 7.9 The frame shall be painted with anti-corrosive and fire retardant material

8.0 FILTERS

- 8.1 Pre-Filter: Pre-filter will contain washable synthetic fiber or High Density Polyethylene (HDPE) media having 18G Galvanised Steel Sheet (GSS) frame. The filter media will be supported with HDPE mesh on one side and aluminium on the other side. Filter frame will be provided with suitable handles. The gravimetric efficiency of the pre-filter as per IS 7613 with test dust G3 will be 90% down to particle size of 20 microns.
- 8.2 Fine Filter: Fine filter will contain HDPE filter media having 18G GSS frame. The filter media will be supported with HDPE mesh on either side. Filter frame will be provided with suitable handles. The gravimetric efficiency of the fine filter as per IS 7613 with test dust G2 will be 99% down to particle size of 5 microns

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- 8.3 High Efficiency Particulate Air (HEPA) Filter: HEPA filter will contain sub-micron glass fiber paper with or without aluminium separators having 18G aluminium frame. Filter media will be designed for velocities not exceeding 1.25 metres per second. Filter frame will be provided with suitable handles. HEPA filter will have cold Di-Octyl-Phthalate (DOP) test efficiency of 99.97% down to particle size of 0.3 microns.

9.0 SPECIFIC INSTRUCTIONS TO BIDDERS

- 9.1 The BIDDER shall furnish all the information called for in various schedules failing which the bid will be considered incomplete & the purchaser reserves the right to reject the bid.
- 9.2 The BIDDER shall carefully study all sections of this specification and indicate all deviations in the Schedule of Deviations. If deviation sheets are not submitted in the Schedule of Deviations sheets, it will be presumed that the offer conforms in all respects to the specification and the purchaser reserves the right to reject the same. Bids as such without any further reference to the BIDDER. If the BIDDER indicates any comments on specification elsewhere in the Bid, the same will not be accepted as the basis for extra claims for conformity with the specification after award of the Contract.
- 9.3 The scope of equipment to be supplied under this contract is detailed hereinafter.
- 9.4 The BIDDER shall prepare and submit three copies of the system "Operation, Maintenance and installation Manual" within the time schedule specified for the contract and before handing over the system for operation.
- 9.5 BIDDER shall include necessary start-up spares required during erection, testing and commissioning and to be quoted in offer.
- 9.6 The BIDDER shall furnish make, type and model number etc. of all bought-out components/items along with his Bid and shall be subject to the owner's approval.
- 9.7 After award of contract BIDDER shall furnish detailed layout drawings, and cross sectional drawing of each equipment indicating material of construction, applicable code/standard etc. for purchaser's approval. VENDOR shall take care of all comments indicated in the drawing by purchaser. These comments will be based on specification, relevant code/standard, statutory regulations good engineering practice, layout requirement, ease in maintenance etc. for which no extra claim shall be applicable after placement of order.
- 9.8 BIDDER shall furnish detailed bar chart for the scope of services within a week after the date of issue of Letter of Intent/P.O.

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10.0 SUBMISSIONS BY BIDDERS

- 10.1 Schedule of drawings and documents to be submitted for review, approval and information with submission dates
- 10.2 Quality Assurance Plan (QAP)
- 10.3 General arrangement and section drawing with all dimensions and complete part list with codes and materials of construction. This drawing shall include all data indicated in data sheets A and B.
- 10.4 Foundation drawing with pocket details with static and dynamic loads, unbalanced forces and moments, if any, for floor mounted fans.
- 10.5 Drawing showing details of wall openings and method of mounting fans for wall and duct mounted fans. These drawings shall also give static and dynamic loads, unbalanced forces and moments, if any.
- 10.6 Drawing showing fabrication and constructional details of the fan
- 10.7 Fan rating charts or tables with selection marked
- 10.8 Performance curves for fans with duty point marked
- 10.9 Torque- speed curve for fans
- 10.10 Erection, operation and maintenance manual with lubrication schedule

11.0 PERFORMANCE GUARANTEE

Performance parameters to be guaranteed by the VENDOR/ CONTRACTOR and tolerances permitted shall be as indicated in section B. BIDDER shall confirm acceptance of these by indicating values. Fan or any portion thereof is liable for rejection, if it fails to give any of the guaranteed performance parameters.

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Annexure IV

SPECIFICATION

FOR

REFRIGERANT

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- 1.0 Scope ofwork**
- 2.0 Codes & Standards**
- 3.0 Design requirement**
- 4.0 Tests**

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1. SCOPE

This specification covers the general design, materials, manufacture, shop inspection and testing at manufacturer's works, delivery at site, handling at site, erection, testing, commissioning, performance testing and handing over of refrigeration piping system and accessories.

2. LIST OF INDIAN STANDARDS CODES

The design, materials, manufacture, erection, inspection, testing and performance of refrigeration piping system shall comply with all currently applicable statutes, regulations and safety codes in the locality where the system is to be installed. The system shall also conform to the currently applicable Indian and international codes and standards. Nothing in this specification shall be construed to relieve the vendor of this responsibility. Following are some of the applicable codes and standards:

ANSI B31.5	Refrigeration Piping
ASHRAE 15	Safety Code for Mechanical Refrigeration
ASTM A106	Seamless Carbon Steel Pipe for High-Temperature Service
ASTM A333	Seamless and Welded Steel Pipe for Low-Temperature Service
IS 10773	Wrought Copper Tubes for Refrigeration and Air-Conditioning Purposes

3. DESIGN REQUIREMENTS

- 3.1 Suction line sizing shall be such that the total loss in pressure is approximately equivalent to 1°C drop in saturation temperature for halogenated hydrocarbon refrigerants and not over 0.5°C for ammonia. Low temperature installations shall allow lower pressure drop than these figures. Suction lines shall be checked for minimum tonnage capacity of the piping for oil return to the compressor.
- 3.2 Discharge lines shall be sized so that the total loss in pressure is approximately equivalent to 0.5 to 1°C drop in saturation temperature.

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- 3.3 Liquid lines shall be sized on the basis of a velocity of 0.5 meters/sec. Lower velocities may be used in smaller sizes of liquid lines. Vapour equalizing lines shall be provided from top of receiver to the top of condenser, if 0.5 meters/sec is used as the design velocity for liquid line from condenser to receiver.
- 3.4 The piping shall be designed for an internal pressure representing the most severe condition of coincident pressure and temperature expected in normal operation including fluid head.
- 3.1 Fittings, flanges and pipe joints shall conform to the requirements of ANSI B31.5.

4. Tests

- 4.1 Test pressure for piping shall be 1.1 times of design pressure.
- 4.2 The pressure shall be gradually increased until a gauge pressure, which is the lesser of one-half of the test pressure or 1.75 Kg/cm²g is attained and preliminary leak checks shall be carried out. Thereafter, the pressure shall be gradually increased in steps until the test pressure is reached. The pressure shall then be reduced to the design pressure and leakage examination shall be made. The design pressure shall be maintained for 48 to 72 hours.
- 4.3 A pressure relief valve/device shall be provided on test pressure line having a set pressure slightly above the test pressure.
- 4.4 Nitrogen shall be used as test medium. Oxygen or any combustible mixture of gases shall not be used as test medium. Water or water solutions shall not be used as test medium

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Annexure V

SPECIFICAION

FOR

INSULATION

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1. **Scope of work**
2. **Codes & Standards**
3. **Material requirement**
4. **Installation procedure**
5. **Acoustic Lining**

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1. SCOPE

This specification covers the technical requirements and essential particulars for the supply, application and finishing of the complete thermal insulation for cold equipment, piping systems, air-conditioning ducts etc. for temperatures between ambient and (-) 80 deg C and also for dual temperatures (both hot and cold) service with hot temperature above ambient and up to 230 deg C.

2. CODES AND STANDARDS

The design, materials, construction features, manufacture, inspection, testing and performance of Thermal Insulation system shall comply with all currently applicable statutes, regulations, codes and standards in the locality where the system is to be installed. Nothing in this specification shall be construed to relieve the CONTRACTOR of this responsibility. In particular, thermal insulation system shall conform to the latest edition of following standards:

IS 8183	Bonded Mineral Wool
IS 9842	Preformed Fibrous Pipe Insulation
IS 14164	Industrial Application and Finishing of Thermal Insulation Material at Temperatures above (-) 80°C and up to (+) 750°C
BS 3927	Rigid Phenolic Foam (PF) for Thermal Insulation in the Form Slabs and Profiled Sections
BS 5608	Preformed Rigid Polyurethane (PUR) and Polyisocyanurate (PI Foams for Thermal Insulation of Pipework and Equipment
BS 5970	Thermal Insulation of Pipework and Equipment (in the Temperature Range (-) 100°C to (+) 870°C)
IS 277	Galvanised Steel Sheets (Plain and Corrugated)
IS 737	Wrought Aluminium and Aluminium Alloy Sheet and Strip for General Engineering Purposes
IS 3144	Mineral Wool Thermal Insulation Materials - Method of Test
IS 3677	Unbonded Rock and Slag Wool for Thermal Insulation
IS 4671	Expanded Polystyrene for Thermal Insulation Purposes

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3. MATERIAL REQUIREMENT

- 3.1 All materials shall be new and fresh, incombustible, fire retardant, rot-proof, non-hygroscopic, vermin proof, fungus proof, non-injurious to health, chemically inert, non-corrosive to steel and aluminium (even if soaked in water for extended periods) and shall be guaranteed to withstand continuously and without deterioration the minimum and maximum temperatures to which these shall be subjected to under the specified applications.
- 3.2 The insulation materials and any component of the finished insulation job shall not react chemically, singly or in combination, with water or moisture to form substances that are more actively corrosive to applied surface than water or moisture alone.
- 3.3 In order to protect the workers from the hazards of insulation materials, suitable protective gadgets shall be provided. Required safety precautions shall be taken during handling and application of insulation.

SL. NO.	INSULATION MATERIAL	DENSITY Kg/M	TEMP. RANG °C	MATERIAL CODE
1.	Rigid polyurethane / Polyisocyanurate foam	32	(-)80 to 110	PUR/ PIR
2.	Resin-bonded glass wool pipe sections	85	(-)40 to 230	PSG
3.	Open cell Nitrile Rubber Acoustic Insulation	140-180	(-) 80 to 230	U150
4.	Closed cell Elastomeric non Polar-Anti Microbial- UV resistant – Class O and Nitrosmine free, Nitrile Rubber Thermal Insulation	40-60	(-)40 to 105	UL94
5.	Closed cell Chemical cross linked polyethylene foam	25	(-) 80 to 105	XLPE

- 3.4 Closed cell Chemical cross linked polyethylene foam (XLPE) or Nitrile Rubber Sheets with anti-bacterial properties are recommended. The Product shall have temperature range of - 80°C to 105°C as per standard DIN EN 14706: 2005 & ASTM C411.

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- 3.5 Thermal conductivity of the insulation material shall not exceed 0.034 W/m.K at an average temperature of 23°C.
- 3.6 The density of insulation shall be 25Kg/m³ or more than specified value for Closed cell Chemical cross linked polyethylene foam (XLPE) and 40-60 Kg/m³ for Nitrile Rubber Thermal Insulation.
- 3.7 The water vapour diffusion resistance shall be more than 54000-60000 following standard BS EN 12086.
- 3.8 The material shall also be UV and Ozone resistant. The joints shall be sealed with self-adhesive tapes (Alupet) of similar specifications.
- 3.9 The insulation material shall be fire rated for Class O for Fire propagation test. Fire Spread Index (FSI) should be less than 25 and Smoke Density Index (SDI) should be less than 50.
- 3.10 Resistance to bacteria and fungi should be excellent on insulation surface accordance. VOC level must be below 4µg/m²/hr.
- 3.11 Material should have Environment friendly like Ozone resistance Excellent, Ozone Depletion potential zero and CFC& HCFC, dust, fibres free.

4.0 INSTALLATION PROCEDURE

- 4.1 The application of insulation shall be made in a professional manner. Duct surfaces shall be cleaned to remove all grease, oil, dirt, etc. prior to carrying out insulation work. The insulation shall be applied to all surfaces when these are at ambient temperature. Ample provision shall be made for the maximum possible thermal movement and the insulation shall be applied in a manner which shall avoid breaking or telescoping due to alternate periods of contraction and expansion. A single layer of insulation shall not be more than 75 mm thick.
- 4.2 Measurement of surface dimensions shall be taken properly to cut closed cell elastomeric rubbers sheets to size with sufficient allowance in dimension. Material shall be fitted under compression and no stretching of material should be allowed. A thin film of adhesive shall be applied on the back of the insulating material sheet and then on to the metal surface. When adhesive is tack dry, insulating material sheet shall be placed in position and pressed firmly to achieve a good bond. All longitudinal and transverse joints shall be sealed as per manufacturer recommendations. The adhesive shall be strictly as recommended by the manufacturer. The detailed Application specifications are as per the manufacturer's recommendation.

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- 4.3 Insulation shall be applied after all leak tests on equipment and piping is over and the section of the plant has been specifically released by the PURCHASER for such work. If insulation has to be applied before the leak test, all welded and flanged joints shall be left exposed and insulated after satisfactory completion of the leak test.
- 4.4 All surfaces to be insulated shall be clean and dry before the insulation is applied. The surfaces shall be cleaned of all foreign material such as scale, dirt, rust and paint, by the use of steel wire brushes and steel scrapers, where necessary. Where a surface is not free of paint the CONTRACTOR shall notify the PURCHASER of the condition for remedial action. The insulation shall be applied after remedial action, suggested by the PURCHASER, has been taken by the CONTRACTOR. One coat of primer paint shall be applied and allowed to dry before application of insulation.
- 4.5 Refrigerant pipe insulating material in tube form shall be sleeved on the pipes. On existing piping, pre-slit, pre-glued tubes shall be placed. The slit ends of the tube shall be joined by removing the release paper. The sleeves shall be sealed from both the ends and at the butts by strictly by manufacturer recommended adhesive. Wherever flat sheets shall be used it shall be cut out in correct dimension. All longitudinal and transverse joints shall be sealed as per manufacturer recommendations. The insulation shall be continuous over the entire run of piping, fittings and valves.
- 4.6 After cleaning and application of one coat of primer paint on the surface to be insulated only, the insulation adhesive shall be applied for fluid operating temperatures between 200C and (-) 200C. Insulation material of required thickness shall be stuck to the surface with joints staggered. The adjoining sections shall be tightly pressed together. All the joints shall be sealed with adhesive material. Voids, if any, shall be packed with suitably cut pieces of insulation material. Vapour barrier and insulation finish shall be applied as per paras 3.4 and 3.5 or 4.5 respectively.
- 4.7 For fluid operating temperatures below (-) 200C, the insulation shall be applied directly over the surface to be insulated without applying the insulation adhesive. Vapour barrier shall be applied over the insulation material. Vapour barrier and insulation finish shall be applied as per paras 3.4 and 3.5 or 4.5 respectively.
- 4.8 Where multilayer insulation is provided, insulation adhesive shall be used between two layers, based on temperature criterion given in para 4.1.4.

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- 4.9 If aluminium or GS sheet is specified as finishing material, all joints shall be sealed with bitumastic paint and made effectively weather and water-proof. For temperatures between (-) 40 and (+) 120oC, MAS 94 may also be used as sealant. MAS 94 shall, however, not be used with polystyrene as insulation material. All flat surfaces shall be adequately sloped to prevent pools of water.
- 4.10 Depending on the type of insulation material used and the operating temperature, contraction joints shall be provided for equipment or pipes to prevent rupturing or buckling when the cold surface contracts.
- 4.11 **ADHESIVE FOR DUCT/PIPE APPLICATION**
- The Adhesive shall be strong bonding, high coverage and synthetic in nature, suitable for use on any substrate and with any type of Insulating material. The Adhesive shall be free of lead, asbestos, benzene & mercury. The Adhesive should be easy to apply with brush. The Adhesive shall be free of obnoxious or repelling odor. Certificate to be issued by the Adhesive manufacturer for no added "Benzene free claim". The adhesive shall have minimum tear strength resistance of > 20 N / 25 mm when tested as per AFERA – 4001. The adhesive shall be quick drying characteristics for tropical conditions and shall have service temperature of 0 0C to +85 0C.
- 4.12 **INSTALLATION OF DUCTS & PIPE EXPOSED DIRECTLY TO SUNLIGHT:**
- Protective Coating shall be an exterior grade flexible, fire resistive fungicidal resistant compound suitable for vapor sealing of any type of insulating material even for external ducts and pipes. The Coating has to be Industrial grade coating conform to chemical resistance, backed by necessary third party certificates. The coating should have excellent resistance to Water Vapor and Rain water resistance and should conform to ASTM 96 and ASTM D 6904. The coating should be Antifungal and Anti Algal and has to conform to ASTM G21, ASTM D 3273 and ASTM D 5589. When tested for surface burning characteristics in compliance with ASTM E-84, flame spread shall be less than 5 and smoke developed less than 10. The Protective Coating shall conform to ASTM D6695 for Weathering Resistance and not only just UV resistant. The Protective Coating shall be applied with 2 coats – one on the insulated surface along with 10 mil Fiber Glass Cloth / Canvass Cloth and second coat above the Fiber Glass Cloth / Canvass Cloth. The Protective Coating should be easy to apply with brush or hand and must have good hiding properties with maximum of 2 coats.

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5.0 ACOUSTIC LINING

- 5.1 Where stipulated the supply air ducts – whether of masonry or sheet metal – shall be lined acoustically 15 mm thick Open Cell Nitrile Rubber Insulation Sheet (density 140 - 160 kg/m³) on one side. The density of the material used shall be 48 kg/cum.
- 5.2 The Open Cell Nitrile Rubber Insulation Sheet shall be fixed to the inner surface of the duct. It should have Microban; antimicrobial product protection, and should pass Fungi Resistance as per ASTM G 21 and Bacterial Resistance as per ASTM E 2180.
- 5.3 The material should have a thermal conductivity not exceeding 0.047 W/m.K @ 20 Deg. C. The material should withstand maximum surface temperature of +85°C and minimum surface temperature of -20°C. The material should conform to Class 1 rating for surface spread of Flame in accordance to BS 476 Part 7 & UL 94 (HBF, HF 1 & HF 2) in accordance to UL 94, 1996.
- 5.4 The joint between the sheets shall be sealed using PVC adhesive tapes.
- 5.5 Air tight boxing for indoor units with proper supports and 25 mm acoustic insulation on the inner surface wherever required as per site condition like outside area to have proper return air provision.
- 5.6 After the air distribution system is completed in all respects, all ducts shall be treated for air leaks.
- 5.7 Before painting the interiors of conditioned spaces air distribution system shall be allowed to run continuously for 48 hours for driving away any dust particles or foreign material ingress / logged within ducts during installation. The entire air distribution system shall be balanced using a hot wire anemometer. Measured air quantities at for discharge and at various outlets shall be identical to or less than 5% in excess if those specified and quoted. Leakage in each air distribution system shall be identical and not greater than 3% in of the total air quantity measured at all supply outlets served by the fan. Branch duct adjustments shall be made by volume control dampers or splitter dampers. Dampers shall be permanently marked after air balancing is complete so that these can be restored to their correct position if distributed at any time. Complete air balance report shall be submitted to the consultants/site supervisor for scrutiny and approval, and provided with complete handing over documents.
- 5.8 ACOUSTIC LINING OF MECHANICAL ROOMS
Two walls and ceiling of air conditioning plant room and air handling unit rooms may be provided with acoustic lining. The recommended insulation thickness is 30 mm.
Installation Procedure - The wall surface shall be cleaned and required surface preparation shall be done for applying adhesive. Rubber based contact adhesive recommended by the manufacturer shall be used. The foam sheets shall be cut to require size and a thin layer of adhesive shall be applied to both the surfaces; wall and i. When it is tack dry, it is should applied / stuck with enough pressure to the walls/ceiling. Minimum

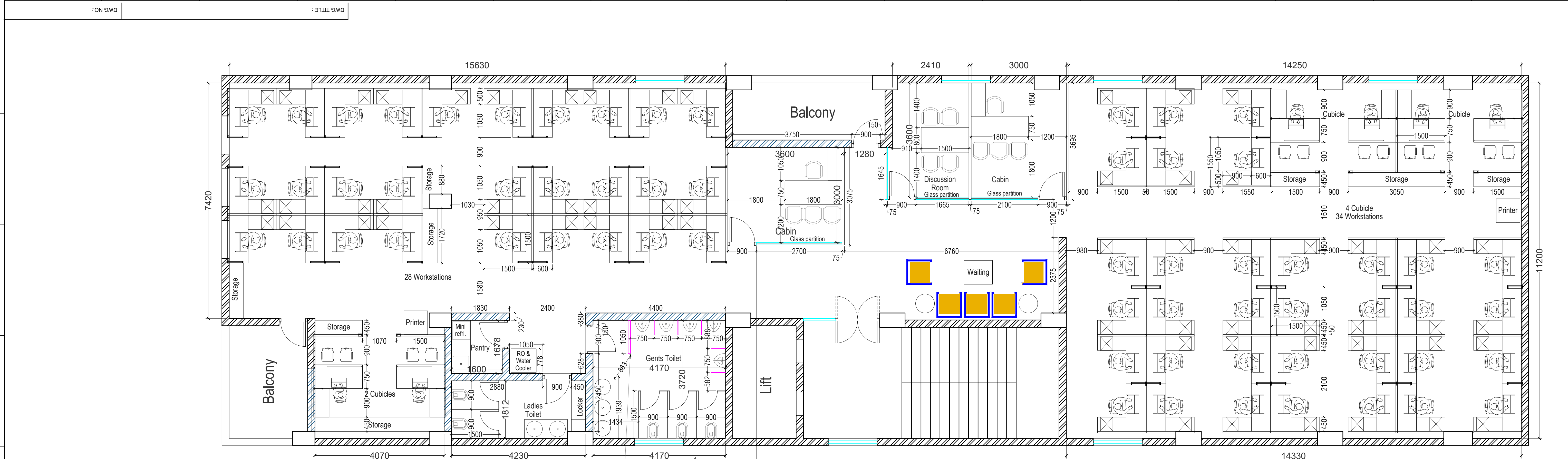
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5 fasteners with washer (of G.I Sheet 2.5 inch x 2.5 inch) / square meter, 4 at corners & 1 at centre shall be put immediately after sticking with the help of adhesive. The length of the fastener should be minimum 75 mm.

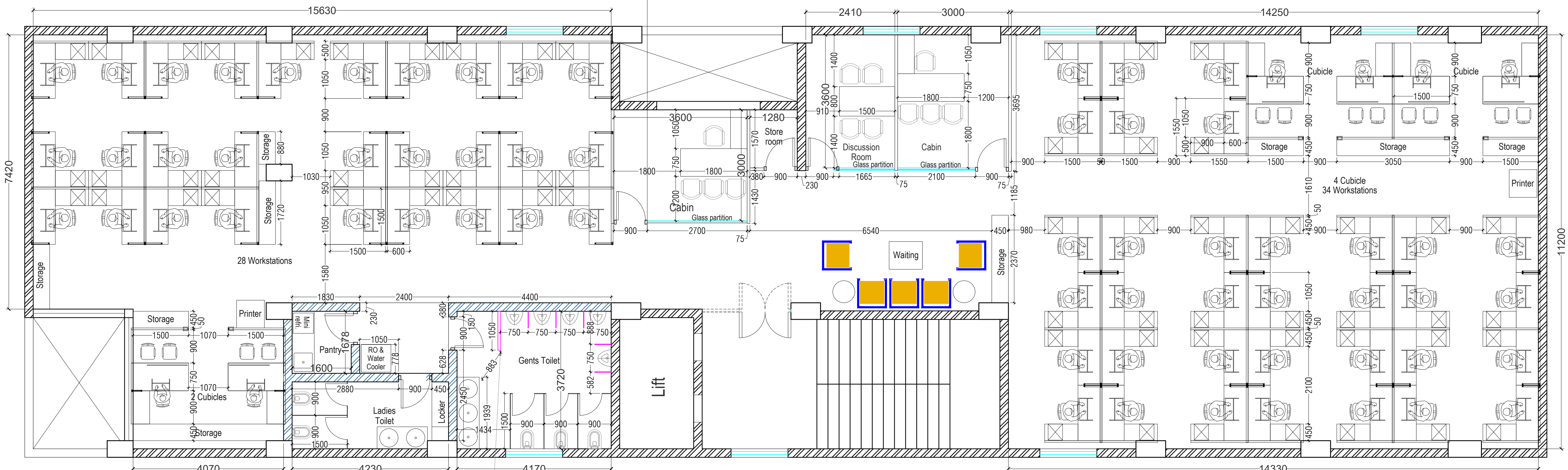
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Annexure VI**QAPs**

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FORM NO. ENG-FM-37-R1



Second Floor Plan



Third Floor Plan

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Scope:

1. The Contractor shall furnish all materials, equipment, associated transportation & labour and shall be responsible for all incidental works necessary for supply, installation, testing and commissioning of complete VRV system as described in the specifications and as shown on the drawings.
2. This includes all materials, equipment, appliances and incidental work not specifically mentioned herein or noted on the drawings or documents as being furnished or installed, but which are necessary and customary to make a complete installation.

Following shall be the scope of work in brief to be carried out under this contract:

- a) Supply, Installation, Testing and commissioning complete air-conditioning (VRV type) system as per BOQ comprising of outdoor units and indoor units.
- b) Supply, Installation and Testing of copper refrigerant piping complete with fittings, full refrigerant charge and class 'O' closed cell elastomeric insulation.
- c) Supply & Installation of condensate drain piping complete with insulation as per BOQ.
- d) Supply, Fabrication and Installation of air distribution system comprising of GSS.
- e) Refrigerant -R- 410A "green gas"
- f) Cable tray system for laying of cables has to be adopted.
- g) Balancing, Testing and commissioning of the entire installation.
- h) Unloading and lifting and shifting of units shall be in scope of BA.
- i) All civil, Scaffolding, Painting works, Ceiling cutting & Concealing works with safety shall be in scope of BA.
- j) ODU structure shall be provided by the BA in consultation with TPSODL EIC.
- k) Power connection up to outdoor and all indoor place will be provided by BA.
- l) All electrical connections will be in BA scope. MCB box to indoor unit and Main Panel to Outdoor unit is included in the BA scope.
- m) Any other work not covered above but required for completion of works shall form part of the scope.
- n) Finishing to be done if any dismantling to be done for piping or tray laying.

This also includes AMC for 4 years post one year of Warranty Period .

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1.0 ORGANIZATIONAL VALUES

The Tata Group has always been a value driven organization. These values continue to direct the Group's growth and businesses. The Six core Tata Values underpinning the way we do business are:

Integrity - We must conduct our business fairly, with honesty and transparency. Everything we do must stand the test of public scrutiny.

Understanding - We must be caring, respectful, compassionate and humanitarian towards our colleagues and customers around the world and always work for the benefit of India.

Excellence - We must constantly strive to achieve the highest possible standards in our day to day work and in the quality of goods and services we provide.

Unity - We must work cohesively with our colleagues across the group and with our customers and partners around the world to build strong relationships based on tolerance, understanding and mutual co-operation.

Responsibility - We must continue to be responsible and sensitive to the countries, communities and environments in which we work, always ensuring that what comes from the people goes back to the people many times over.

Agility - We must work in a speedy and responsive manner and be proactive and innovative in our approach.

2.0 ETHICS

In our effort towards Excellence and in Management of Business Ethics at TPSODL, an Ethics Management Team is constituted.

The main objective of the Ethics Management Team is to:

1. Record, address and allay the issues and concerns on ethics raised by different stakeholders like employees, consumers, vendors, associates etc. by initiating immediate corrective actions.
2. Ensure proper communication of the ethics policies and guidelines through prominent displays at all offices of TPSODL and through printed declarations in all concerned documents where external stakeholders are involved.
3. Ensure proper framework of policies as preventive measures against any ethics violation recorded by them.
4. Prepare and submit MIS of all issues and concerns, corrective and preventive actions on monthly basis to the top management for their information.
5. All Associates and Stakeholders are requested to register any grievance on ethics violation on TPSODL website www.tpsouthernodisha.com

3.0 CONTRACT PARAMETERS

3.1 Issue/Award of Contract

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TPSODL awards the contract to the Associate in writing in the form of Purchase order or Rate Contract (RC) hereafter referred as Contract, through in any or all of following modes- physical handover / post / e-mail / web document / fax with all the attachments/enclosures which shall be part of the contract document

On receipt of the contract, the associate shall return to TPSODL copy of the contract document duly signed by legally authorized representative of associate, within two days of Effective Date of Contract for contracts having contract execution time less than 30 days and within five days for all other contracts.

3.2 Contract Commencement Date

The date of issue/award of contract shall be the Effective Date of Contract or Contract Commencement date.

3.3 Contract Completion Date

The date of expiry of Guarantee Period (detailed in section 12 of this document) shall be deemed as the Contract Completion Date.

3.4 Contract Period/Time

The period from Contract Commencement Date to Contract Completion Date shall be deemed as the Contract Period/Time.

3.5 Contract Execution Completion Date

The stipulated date for completing the execution of all items in the schedule of quantities (Supply, Service and or both as applicable) shall be deemed as the Contract Execution Completion Date.

3.6 Contract Execution Period/Time

The Period from Contract Commencement Date to Contract Execution Completion Date shall be the Contract Execution Period/Time. Timely Completion of Works/Timely Delivery of Materials is the essence of the contract. The period from effective date of contract to the date stipulated for completion of delivery of all items/completion of all the works/services, as per schedule of quantities of the contract is defined as contract execution completion time. The Delivery of Materials /The Completion of Works, as applicable, should be achieved in all respects as per schedules of quantities and all the terms and conditions of the contract, in the contract execution time.

Any revision/amendment in the originally stipulated contract execution time has to be approved by authorized representative of TPSODL.

3.7 Contract Price /Value

The total all inclusive price/value mentioned in the LOI/PO/RC of the contract document is the Contract Price/Value and is based on the quantity, unit rates and prices quoted and awarded and shall be subject to adjustment based on actual quantities supplied/actual measurement of work done and accepted and certified by the authorized representative of the company unless otherwise specified in schedule of quantities or in contract documents.

3.8 Contract Document

The Contract Document shall mean and include but not limited to the following:

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- NIT/Tender Enquiry, QR, Instruction to Bidders, Special Condition of Contract (SCC) of tender, GCC, Technical & Commercial Specifications including relevant annexure and attachments).
- Bids & Proposals Received from Associate including relevant annexure/attachments.
- Letter of Intent (LOI/RC/PO) with agreed deviations from the tender/bid documents.
- All the Inspection and Test reports, Detailed Engineering Drawings.
- Material Dispatch Clearance Certificate (MDCC).
- Minutes of Meeting (MoM)

3.9 Contract Language

All documents, instructions, catalogues, brochures, pamphlets, design data, norms and calculations, drawings, operation, maintenance and safety manuals, reports, labels, on deliveries and any other data shall be in English Language.

The Contract documents and all correspondence between the TPSODL, Third Parties associated with the contract, and the Associate shall be in English language.

However, all signboards required indicating "Danger" and/or security at site and otherwise statutory required shall be in English, Hindi, and local languages.

3.10 Reverse Auction

TPSODL 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 in Annexure J. The bidders along with the tender document shall mandatorily submit a duly signed copy of the Acceptance Form as mentioned in the Annexure J as a token of acceptance for the same.

Bid validity will stand get automatically extended from the date of latest Negotiation event i.e. Reverse Auction or Manual Negotiation and accordingly bid shall be valid further

- i. For minimum 45 days if original bid validity duration is lesser than 45 days at latest negotiation date.
- ii. For actual bid validity duration if original bid validity is more than 45 days at latest negotiation date.

4.0 SCOPE OF WORK

All the activities that are to be undertaken by the Associate to realize the contractual deliverables in completeness form Scope of Work. Following clauses list, but not limited to, major requirements of the scope of work.

The associate shall satisfy himself and undertake fully the technical/commercial requirements of items to be supplied as listed in the Schedule of Quantities together with the tests to be performed /test reports to be furnished before dispatch, arrangement of stage and final inspections during manufacturing as per terms and conditions of contract, technical parameters & delivery terms and conditions including transit insurance to be met in order to fully meet TPSODL's requirements.

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Completeness: Any supplies and services which might have not been specifically mentioned in the Contract but are necessary for the scope mentioned in Special Terms & Conditions and/or completeness of the works at the highest possible level, including any royalties, license fees & compensation to be paid, whether incurred by the associates or by a third party for the work covered in the scope, regardless of when incurred, shall be supplied/provided by the associate without any extra cost and within the time schedule for efficient, smooth and satisfactory operation and maintenance of the works at the highest possible level under Indian conditions (but according to international standards for facility of this type), unless expressly excluded from the scope of supplies and services in this Contract.

TPSODL have the right, during the performance of the Contract, to change the scope and/or technical character of the Project and/or of the supplies and services stipulated in the Contract by submitting a request in writing to the Associate. The Associate shall, within fifteen days of receipt of such request from the TPSODL, provide Purchaser with a reasonably detailed estimate of the cost of the change outlined in the request.

In the event, TPSODL requests a change, the Contract price and time shall be adjusted upwards or downwards, as the case may be and shall be mutually agreed to. The associate shall not be entitled to any extension of time unless such changes adversely affect the time schedule.

The Associate shall not proceed with the changes as requested till adjustment of contract price and time schedule where so applicable in terms of or otherwise directed by the TPSODL.

4.1 Indemnity

Associates shall undertake to fully indemnify TPSODL (also referred to as the Company in the GCC) against all kinds of liabilities or damages, of whatsoever nature, including compensation arising from any accident to the person or property of those in Associate's employment or to any other person or properties including those of TPSODL, arising due to reasons attributable to any, act, omission or negligence of the Associate the Associates, for the entire period of contract including period of guarantee.

Within 7 days of award of work, the Associates shall submit Indemnity Bond in the format as per Annexure-E to Order Issuing Authority.

Contract having value more than Rs 2 Cr per Annum, Associates shall submit Indemnity Bond on Rs 100/- Non Judicial Stamp Paper in the format as per Annexure- E to Order Issuing Authority.

4.2 Display of Notice Boards at Work Sites

The Associate shall put up display notice board at each project site where the works are in progress indicating the information given below:

- Name of the Project.
- Estimated Cost of Project.
- Date of Commencement.
- Expected date of completion.
- Name of Associate and his telephone number.
- Name of Engineer-in-Charge and his telephone number.

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4.3 Disposal of Waste at Site

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.

The associates shall follow the below criteria for disposal of waste at site during the execution of project.

- Associate shall ensure that the detailed project plan include the waste management, segregation of all designated waste material (Recyclable/ Non-Recyclable), collecting, storing, disposing and transferring the same to pre-arranged facility/destination in timely and safe manner as per environmental legislations during the execution of project. The project plan shall also include the innovative construction practice to eliminate or minimize waste, protect surface/ground water, control dust and other emissions to air and control noise during the execution of project. The copy of same shall be given to EIC before the commencement of project.
- The purchase policy of BA shall encourage the procurement of material with recycled and minimum packaging of goods during delivery. Associate shall provide the appropriate means for site to site transportation of materials to avoid damage and litter generation.
- Associate shall educate and inform to its project team about the requirement and responsibilities for waste minimization and disposal in general and provide training of practices that support this. Waste management should be treated like a safety program.
- In the event that area of contaminated or biological hazard is identified, Associate shall ensure that plant, equipment, personnel and any activity associated with the work is carried out in consultation with EIC of TPSODL.
- Associate shall ensure that the residents living near the site are kept informed about proposed working schedule and shall informed timings and duration of any abnormal noise full activity that is likely to happen.
- Associate shall ensure the regular maintenance and monitoring of vehicles and equipment for efficient fuel use so that emissions and noise are within acceptable limits to avoid air pollution.

4.4 Deployment of Work Force

Associate shall deploy adequate labour as considered necessary by TPSODL for execution of the contract including Sundays and Holidays whenever required to do so with no extra cost to TPSODL. However, prior permission shall be taken from the site Engineer to carry out the work beyond normal working hours or on Sundays and Holidays. Female employees shall not be deployed beyond normal working hours/days and no child labour shall ever be deployed. Associate shall depute full time qualified and experienced engineers to supervise the work at site. All such staff shall be maintained from commencement to completion of all works to the entire satisfaction of the Engineer-in-Charge. Associate's employees deployed for the works under this contract will not be considered in Company's employment at any time. Associate shall continue to be responsible for all such employees, their safety, all types of statutory compliances related thereto and in any other manner whatsoever. The company

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will stand indemnified by the Associate in respect of all the above. At the same time Company upon noticing any breach or default on any statutory compliances, may at their sole discretion, decide to act in a manner as deemed fit at the risks and costs of the Associate.

TPSODL shall have the right to instruct the Associate to change the Sub- Associates or skilled /unskilled workers in case the conduct, the workmanship or speed of the work is not satisfactory.

Associates shall submit duly signed undertaking regarding engagement of competent staff / employee commensurate to the nature of job to Engineer-in-charge in the format attached as Annexure – H.

4.5 Damages to Properties

The Associates shall take necessary steps to ensure that the equipment and installations of the Company, third parties, including other utility services like water supply pipelines; open drains telephone cables etc. are not damaged during execution of the works. The Associates shall be responsible for all such damages and shall have to repair/ replace and/or compensate for the entire claims in respect of such damages at its own cost.

4.6 Issuance of Material

The material issued to the Associate shall be in the custody of the Associates who shall be fully responsible for the same. After completion of the works, the Associates will reconcile the material. Any cost of material which is short or damaged/lost will be deducted from Associate bill/ deposits.

4.7 Company's Right to Use Works

If Taking Over Certificate is delayed for any reason, for which TPSODL's decision shall be final and binding upon the Associate, the Company shall be entitled to use the works or portion thereof without affecting Associate's responsibility and liability to complete the balance works as per company's directives from time to time, though Associate shall be afforded reasonable opportunity by the company to enable Associates to complete all balance works required for issuance of 'Taking Over Certificate' by the company.

4.8 Rights of TPSODL to vary the scope work

TPSODL shall have the right, during the performance of the Contract, to change the scope and/or technical character of the Project and/or of the supplies and services stipulated in the Contract by communicating the intent to do so in writing to the Associate. On receipt of such communication the Associate shall, within the time frame specified in the contract shall provide TPSODL with a reasonably detailed estimate of the cost of the change in scope outlined in the TPSODL communication. The change in the Contract price and time shall be revised upwards or downwards, as the case may be, and shall be mutually agreed to. The Associate shall not be entitled to any extension of time unless such changes adversely affect the time schedule.

The Associate shall not proceed with the changes in the scope of work till such time revision of Contract price and time schedule are approved and communicated to the associate by TPSODL.

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Any change in the Scope of Work and/or Terms & Conditions of the order shall be intimated by TPSODL through an amendment to the contract. The amendment shall be treated valid only if signed by the authorized signatory of the original contract.

5.0 PRICES/ RATES/ TAXES

5.1 For Supply part of Contract

Unless specified elsewhere in the contract document, the prices/rates are inclusive of cost of finished product for which MDCC will be issued by TPSODL, packaging and forwarding charges, freight and transit insurance charges covering loading at Associate's works, transportation to TPSODL store/site & unloading & delivery at TPSODL stores/TPSODL site, cost of documentation including all the relevant test certificates and other supportive documents to be furnished.

The Prices/Rates are inclusive of all taxes, levies, cesses and duties, particularly Goods and Services Tax as applicable. All government levy / taxes shall be paid only when the invoice is submitted according to the relevant act.

The prices/rates shall remain firm till actual completion of entire supply of goods/material/equipment as per contract is achieved and shall remain valid till the completion of the contract.

The prices shall remain unchanged irrespective of TPSODL making changes in quantum in all or any of the schedules of items of contract.

5.2 For Service part of Contract

The Prices and Rates are inclusive of cost of materials supplied as per contract terms and for which MDCC is issued by TPSODL and to the extent required for completion of works, cost of service executed as per schedule of quantities, cost of testing as per contract terms, cost of documentations including all relevant test certificates and other supportive documents to be furnished as per contract terms. The rates shall remain firm till actual completion of contract.

The Prices/Rates are inclusive of all taxes, levies, cesses and duties, particularly Goods and Services Tax as applicable. All government levy / taxes shall be paid only when the invoice is submitted according to the relevant act.

The prices shall remain unchanged irrespective of TPSODL making changes in quantum in all or any of the schedules of items of contract.

5.3 Changes in Statutory Tax Structure

If rate of any or all of the statutory taxes and duties applicable to the contract changes, such changes shall be incorporated by default if the changes occur within the contract execution time and shall be applicable if the contract is executed by the Associate within the Contract Execution Time.

For execution of contracts beyond contract execution time, where the delay is not attributable to TPSODL no upward revision in tax /duties shall be considered irrespective of changes in the statutory tax structure either within the contract execution time or beyond. However, in such cases, benefits due to any downward revisions in statutory tax rates shall be passed on to TPSODL.

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6.0 TERMS OF PAYMENT

- A. 5% of the Release Order/ Purchase Order price shall be paid as initial interest free advance on fulfillment of the following by the Associate:
 - a) Acceptance of PO/ LOI.
 - b) Submission of advance payment BG of 15% of the Release Order/ Purchase Order price which shall remain valid till the advance is fully adjusted.
 - c) Submission of Contract Performance Bank Guarantee of 5/10% of the RC/ PO price valid till 30 days after taking over of the works.
- B. 10% of the Release Order/ Purchase Order price shall be paid as interest free advance against approval of drawings under Category-1 of major drawings, Quality Plans, Pert Chart, Field Quality Plan, posting of Project Manager and commencement of the first mile stone of the work mutually agreed including C-3 Form, and submission of a true copy of 'Erection All Risk Insurance Policy' taken for the awarded jobs. The drawing list shall be mutually agreed at the time of award of work.
- C. 50% on account payment of the total of item wise cost of material Release Order/ Purchase Order shall be paid against receipt of material at site in good condition and certification by TPSODL along with bills complete in all respects viz. MDCCs etc.
- D. 20% on account payment of the actual executed value shall be paid against mechanical completion of erection on prorata basis against monthly bills and 70% on account of the actual executed value shall be paid against the service line item including composite line item. In case this milestone is not completed beyond 120 days for reasons attributable to TPSODL, the payment corresponding to supply part shall be released subject to submission of BG of equivalent amount by the BA valid for a period of further 12 months. If required, it shall be extended by the BA on request of TPSODL.
- E. 15% payment of the actual executed Release Order/ Purchase Order shall be paid after completion of acceptance test and Taking Over of the complete systems specified in the enquiry, including clearance of Electrical Inspection, compliance of final punch point and after reconciliation & adjustment of payments, if any, towards Quantities of materials issued from purchaser's stock and consumed by the contractor for expeditious completion of the job. In case this milestone is not completed beyond 120 days beyond schedule for reasons attributable to TPSODL, the payment corresponding to supply part shall be released subject to submission of BG of equivalent amount by the BA valid for a period of further 12 months. If required, it shall be extended by the BA on request of TPSODL.

The Contractor shall submit all Operation & Maintenance manuals and "As Built Drawings" etc. and shall also submit Equipment Warranty Bank Guarantee (EWBG) equivalent to 5/10% of actual executed contract price before the release of this last payment and return of CPBG. The validity of EWBG shall be for a period of 15 months from the date of taking over of the works or specified guarantee period in drawing/tender/technical specification documents etc. whichever is later. The associate shall also submit 'No Demand Certificate' at the time of receipt of full and final payment.

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6.1 Pre-Requisites for Payment

- Associate should have completed execution of that part of contract, for which payment is sought, to the satisfaction of TPSODL's Engineer-in-Charge responsible for the contract and obtained certification for execution of the work.
- Associate has undertaken joint measurement of the work executed along with TPSODL's Engineer-in-charge
- Associate's bills/invoices submitted have been certified by Engineer-In-Charge.

6.2 Bills & Invoices

Unless specified otherwise in the special conditions of contract, Associate shall raise not more than one invoice/contract per month for the services rendered in the prescribed Tax Format and the invoice shall be submitted within 15 days of the following month at Bill Inward Receipt Desk (BIRD) Receipt Desk / Invoice Desk / Office of CFO, TPSODL located at TPSODL Corporate Office, Kamapally, Courtpet, Berhampur, District Ganjam, Odisha, India – 760 004

All Bills shall be supported by joint measurement of work done, quality test report and a copy of wage sheet, if applicable (showing proof of having disbursed wages as per applicable law) and a copy of statement substantiating that statutory payments having been affected.

Bills/ invoices shall mention Associate's 'Sales, Service, WCT Tax Registration Number, PAN number as applicable.

Final bill submission after completion of project or execution of job must be within 30 days from the actual date of completion/execution of work awarded.

6.3 Payment & Statutory Deductions

Payment shall be released within 30 days from the submission of the bills. The associate shall submit "No Demand Certificate" in the format as per Annexure-D at the time of receipt of full and final payment. In case any non-compliance to contract conditions comes to TPSODL's notice, TPSODL will be entitled to deduct 30% of estimated wages plus 20% of wages as TPSODL's overheads. Associates would be obliged to provide the copy of monthly wage sheet in any case, failing which no payment shall be made. TPSODL at their sole discretion may deposit the PF etc. with statutory authorities. TPSODL will deduct the amounts of TDS as per statutory requirement under the income tax act and the DVAT Act and certificates (wherever applicable) will be issued to associate accordingly.

In case of non-submission of PAN No TDS @ 20% shall be deducted from all payable amounts for which no TDS certificate shall be issued. TDS once deducted as above shall not be revised in any condition.

6.3.1 Statutory Deductions

TPSODL will deduct the amounts of TDS, TCS as per statutory requirement under the income tax act, the Goods and Services tax act, BOCW Act, or any other applicable tax act and certificates (wherever applicable) will be issued to associate accordingly. For consumption of TPSODL's Water and Electricity by Associate for execution of Contract, Associate shall pay 0.5% & 1.0% respectively of contract value and it shall be deducted from the running bills. The Engineer-in-Charge as stated in the Order shall be responsible for certification of the work executed and the bills. Bills (including original) shall be submitted in

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triplicate at Bill Inward Receipt Desk (BIRD) / Invoice Desk / Office of CFO, TPSODL located at TPSODL Corporate Office, Kamapally, Courtpetta, Berhampur, District Ganjam ,Odisha, India – 760 004

6.4 Guidelines for Raising Running/Final Bills

Contract Value Up to 5 Lakhs	One Final Bill
Contract Value More than 5 lakhs	Monthly Running Bill & One Final Bill

All Bills shall be processed only when all bank Guarantees are in place and before payments of Final Bill Associate have to furnish NDC.

6.5 Quantity Variation

Payment will be made on the basis of actual quantity of supplies/actual measurement of works accepted by TPSODL and not on the basis of contract quantity.

6.6 Full and Final Payment

Full & Final Payment in all contracts shall be made subject to the associate submitting “No Demand Certificate” in the format as per Annexure-D.

7.0 MODE OF PAYMENT

Payment shall be made through RTGS mode for which Business Associated shall submit the details of Bank Account and other details as per annexure K. Further, for any payments made, TPSODL is not responsible for any consequences/disputes Associate have among the owners channel partners, sub-Associates and all such dispute/concerns shall be settled solely by the Associate.

The quantities of items indicated are estimated and preliminary. However, payments shall be made on the basis of actual quantity of work carried out and measured jointly by the Company and the Associate. Associates shall be responsible to organize joint measurements of works with TPSODL Engineer-in-Charge before raising any bill of work done. In the event Associate fails to do so, TPSODL at their sole discretion, may take measurements of work done and proceed as deemed fit and in such an event Associate's right to lodge any subsequent claim shall stand forfeited.

8.0 SECURITY CUM PERFORMANCE DEPOSIT

Associates shall submit within 15 days from the effective date of issue of PO/RC, Security cum Performance Guarantee (SPBG) in the format as per Annexure B of this document from banks acceptable to TPSODL for:

(a) 5% of the PO value if purchase order value is more than Rs 5 Crores.

(b) 10% of the PO value if purchase order value is less than Rs 5 Crores.

This shall remain valid till the end of the Guarantee Period of contract, plus one month.

(c) 5% of the RC value in case of Rate Contract. This shall remain valid till the Guarantee period plus one month.

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- For PO/RC values less than Rs. 5 lacs, Associate may request for deduction of amount equivalent to SPBG value from their first invoice. Such amount shall be withheld by TPSODL while processing the invoice and shall be released after completion of Guarantee Period plus one month.
- For PO/RC values less than Rs. 3 lacs, the clause (8.0) for Security cum Performance Bank Guarantee (SPBG) shall not be applicable.
- In case of RC (Rate Contract) after the expiry of RC validity, Associate shall have to submit SPBG. However, the Associate has the option to re-submit the SPBG as per actual RO (Release Order) value issued against the RC, valid for Guarantee Period plus one month. The Guarantee Period shall be considered as per the last RO issued against the said RC. The original SPBG as submitted against the RC shall be released on submission of the new SPBG to TPSODL. Alternatively, Associate may extend the validity of original SPBG only till the requisite period, i.e. Guarantee Period plus one month.

9.0 STATUTORY COMPLIANCE

9.1 Compliance to Various Acts

Associate should ensure adherence to all applicable laws, rules and regulation applicable under this contract from time to time. In case of violation any risk, costs etc shall be in associates account and keep TPSODL indemnified always till completion of contracts.

9.2 Social Accountability

TPSODL expects its Associates to follow guidelines of best practices on the following aspects

1. Child Labour
2. Forced or Compulsory Labour
3. Health & Safety
4. Freedom of Association & Right to Collective Bargaining
5. Discrimination
6. Disciplinary Practices
7. Working Hours
8. Remuneration
9. Management System

9.3 Affirmative Action

TPSODL appreciate and welcome the engagement/employment of persons from SC/ST community or any other deprived section of society by their business associates.

Relaxation in Contract Clauses under Affirmative Action for SC/ ST Business Associates**

TPSODL believes that inclusive growth is the key to sustainable development, and to promote the same Policy on Affirmative Action for Scheduled Caste & Scheduled Tribe Communities has been adopted across the company.

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Under the same pre-text, and to promote entrepreneurship among SC/ST community TPSODL has taken initiative by proposing relaxations in contract clauses as per below:

S. No.	Initiative	for SC/ ST BA's	Guideline Document
1	Tender Fees	100% waiver for SC/ST community	All Open Tenders
2	Earnest Money Deposit	50 % relaxation of estimated EMD value	All limited and Open Tenders
3	Performance Bank Guarantee	25% relaxation in PBG for order value above 50 lacs else 50% relaxation	All limited and Open tenders
4	Turnover	25% relaxation in company turnover under qualifying requirement criteria	All Open Tenders

****Classification of BAs under SC/ST shall be governed under following guidelines:**

- Proprietorship/ Single Ownership Firm: Proprietor of the firm should be from SC/ST community. Governing document shall be duly audited balance Sheet for the last FY bearing the name of proprietor.
- Partnership Firm: Only such firms shall qualify which have SC/ST partners holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Partnership Deed and audited balance sheet/ ITR for last FY.
- Private limited company: Only such firms shall qualify which have SC/ST directors holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Memorandum of Understanding (MoU) and/or Article of Association (AoA).

Certification from SC/ST commission shall be required for deciding upon SC/ST status of a person.

9.4 Preferential norms for procurement from MSMEs registered in the State of Odisha

- i. MSME Business Associate registered in the State of Odisha is requested to inform the TPSODL if they fall under provisions of the Micro, Small and Medium Enterprises (MSME) Category and provide necessary documents to TPSODL. The Associate also needs to mention the relevant details on their invoice / bill.
- ii. MSME Business Associate registered in the State of Odisha shall submit the self-undertaking of registration in MSME category at the time of bidding as well as on an annual basis to TPSODL, enabling them to avail the consequent benefits, failing which TPSODL may take appropriate action against such defaults.
- iii. **Tender Fees** - To participate in the tender, MSMEs registered in the State of Odisha shall pay Rs.1,000/- including GST towards cost of tender paper.
- iv. **Earnest Money Deposit (EMD)** - EMD shall be exempted for MSME registered in the State of Odisha. However, Bidder shall be barred to participate in the tendering process for a period of 2 years in case it backs out post award of the contract.

v. Qualification Requirement for Open Tenders

Qualification Requirement of Financial Turnover for MSME registered in the State of Odisha shall be reduced to 20% of the existing criteria.

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For Technical Qualification, instead of relying on the volumes / value of earlier Supplies / Projects, assessment of the Bidder shall be done on the basis of feedback from Customers. Past performance experience at Tata Power and its Group Companies shall supersede feedback from other Customers.

- vi. Performance Bank Guarantees-** Performance Bank Guarantee for MSME registered in the State of Odisha shall be 25% of the value normally prescribed.

9.5 Compliance to Labour Laws

Bidder needs to ensure compliance to applicable labour laws including timely disbursement of wages. In case wages are not disbursed as per the stipulated timelines, then TPSODL shall pay the wages to BA employees on behalf of BA. Apart from deducting the amount of wages paid, TPSODL shall deduct an additional service charge equivalent to 25% of the wages paid from the payment due to BA.

9.6 Compliance to Construction and Demolition Waste Management Rules & Environment (Protection) Amendment Rules

BA is liable to follow the Construction and Demolition Waste Management Rules- 2016, Environment (Protection) Amendment Rules- 2018 and Guidelines on dust mitigation measures in handling construction material and C&D wastes issued by CPCB.

Following are some main points of above Rules/Guidelines for Construction work, cable laying jobs etc.

1. Barricading to be provided at site to cover complete area.
2. Construction material and waste should be inside the closed area made by using barricading.
3. Water sprinkling/fine spray from nozzles to be done to suppress the dust.
4. The board of Dust mitigation measures shall be displayed at site for public viewing with required details.
5. Loose sand or soil and construction material that causes dust shall be covered.
6. Transport material that are easily wind borne need to be covered by a sheet made of either jute, tarpaulin, plastic or any other effective material.
7. All areas for storing C&D waste/construction material to be demarcated and preferably barricaded particularly those materials that have potential to be dust borne.
8. Grinding and cutting of building materials in open area shall be prohibited.
9. Construction material and waste should be stored only within earmarked area and roadside storage of construction material and waste shall be prohibited.
10. No uncovered vehicles carrying construction material and waste shall be permitted.
11. Construction and demolition waste processing and disposal site shall be identified and required dust mitigation measures to be notified at the site.

10.0 QUALITY

10.1 Knowledge of Requirements

The Associate shall be deemed to have carefully examined and to have knowledge of the equipment, the general and other conditions, specifications, schedules, drawings, etc. forming part of the Contract and also to have satisfied himself as to the nature and character of the work to be executed and the type of the equipment and duties required including

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wherever necessary of the site conditions and relevant matters and details. Any information thus procured or otherwise obtained from TPSODL/Consultants shall not in any way relieve the Associate from his responsibility and executing the works in accordance with the terms of contract.

10.2 Material/Equipment/Works Quality

The items / works under the scope of the Associate shall be of the best quality and workmanship according to the latest engineering practice and shall be manufactured from materials of best quality considering strength and durability for their best performance and, in any case, in accordance with the specifications set forth in this Contract. All material shall be new. Substitution of specified material or variation from the process of fabrication/construction/manufacture may be permitted but only with the prior written approval of the TPSODL.

10.3 Adherence to Rules & Regulations

The Associate shall procure and/or fabricate/erect all materials and equipment in accordance with all requirements of Central and State enactment, rules and regulations governing such work in India and at site. This shall not be construed as relieving the Associate from complying with any requirement of TPSODL as enumerated in the Contract which may be more rigid than and not contrary to the above mentioned rules, nor providing such construction as may be required by the above mentioned rules and regulations. In case of variance of the Technical Specification from the laws, ordinance, rules and regulations governing the work, the Associate shall immediately notify the same to the TPSODL. It is the sole responsibility of the Associate, however, to determine that such variance exists. Wherever required by rules and regulations, the Associate shall also obtain the statutory authorities' approval for the plant, machinery and equipment to be supplied by the Associate.

10.4 Specifications and Standards

The Associate shall follow all codes and standards referred in the Contract Document. Codes and standards of other may be followed by the Associate with the prior written approval of TPSODL, provided materials, supplies and equipment according to the standard are equal to or better than the corresponding standards specified in the Contract.

Brand names mentioned in the Contract documents are for the purpose of establishing the type and quality of products to be used. The Associate shall not change the brand name and qualities of the bought out items without the prior written approval of the TPSODL. All such products and equipment shall be used or installed in strict accordance with original manufacturer's recommendations, unless otherwise directed by the TPSODL. In any circumstances the codes, specimen and standards prescribed by any government agency should not be violated.

11.0 SAFETY

All Associates shall strictly abide by the guidelines provided in TPSODL's Contractor Safety Management System (CSMS) as applicable at all stages during the contract period. Associate shall execute the contracts ensuring the following in and as order of priority:

- Safety of Human Beings.

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- Safety of equipment/Assets.
- Timely Completion of Contract.

Safety related requirements as mentioned in our Contractor Safety Management System is attached as annexure L and is an integral part of this GCC.

12.0 INSPECTION/PARTICIPATION

12.1 Right to Carry Out Inspection

TPSODL reserves the right to send its representatives for inspection or participation at various stages of contract execution listed below, applicable as per contract construction.

- During basic design and detail engineering of material/ Equipment carried out by Associate /Outsourced Agencies.
- During manufacturing stages of the product at Associate's/Associate's Outsourced Agency's Plant/Facility.
- During Pre-dispatch Inspection and Testing of finished/manufactured product at Associate's/Associate's outsourced Agency's Plant/Facility.
- During Installation & Commissioning Activities/Stages.
- Prior to Clearing of the completed installation for commissioning.
- Any other stage as find appropriate by TPSODL during contract execution time.

All inspections and participations shall be carried out within maximum of two weeks of TPSODL giving written intimation to the Associate or receiving appropriate advance written inspection call from the Associate, unless otherwise specified elsewhere in the contract document.

12.2 Facilitating Inspection

The Associate shall provide all opportunities and information to TPSODL's engineers to get acquainted with the technical know-how and the methods and practices adopted by the Associate in basic and detail engineering. The Associate shall provide documents, drawings, calculations etc. as may be required by TPSODL's Engineers.

The Associate shall provide free of charge office accommodation, office facilities, secretarial services, communication facilities, general and drawing office stationery, etc. as may be reasonably required by the TPSODL's engineers. Similarly, facilities shall also be provided by Associate's outsource agencies/partners/authorized dealers (collectively termed as sub-associates) if such basic and detail engineering activities are carried out in the design offices of sub-Associates.

The Associate shall be responsible for the safety of employees of TPSODL/Third Party Agency when they are at the Associate's /Associate's outsource agency's plant or facility for carrying out/witnessing inspection/testing. All statutory safety precautions as applicable shall be followed by the Associate during Inspection Testing. If TPSODL inspectors are not satisfied with the safety arrangements at the plant, TPSODL have the right to call off inspection till such time corrective action is taken by the Associate.

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Before raising the call for pre-dispatch final inspection and testing, the Associate shall conduct all the tests—type tests, routine tests etc.-as specified in the contract document and submit copies of the test certificates to TPSODL along with the inspection call, for scrutiny of TPSODL.

The Associate and TPSODL shall jointly document all the observations, comments and action points after completion of inspection and it shall be binding on the Associate to provide compliance on all the points requiring compliance and furnish the compliance report to the designated authority of TPSODL for receiving clearance for dispatch of materials.

12.3 Third Party Nomination

TPSODL also may nominate a third party for the purpose of carrying out the inspection and such an agency shall be entitled to all the rights and privileges of TPSODL as far as conducting the inspection.

12.4 Waiver of Inspections

TPSODL on its own discretion shall chose to waive off any inspection and ask the Associate to submit all the test reports as applicable as per contract specifications, related to inspection and testing of the goods ordered for scrutiny and clearance for dispatch.

12.5 Incorrect Inspection Call

In case it is observed that the material offered for inspection is not ready at the time of TPSODL inspection visit rendering it as futile, all costs towards such inspection shall be recovered from the BA. Taxes as applicable on such recoveries shall be borne by the BA.

13.0 MDCC & DELIVERY OF MATERIALS

13.1 Material Dispatch Clearance Certificate

Associate shall deliver material/goods/equipment against Supply Contracts or Supply Part of Composite/Service Contracts only after receiving Material Dispatch Clearance Certificate (hereafter termed as MDCC) issued by designated authority of TPSODL. Material delivered at TPSODL stores or at project site without a valid MDCC issued by the designated official of TPSODL shall be rejected. MDCC shall be issued to associate furnishing compliance report on the action points documented during pre-dispatch inspection and testing at Associate's/ Sub-Associate's plant/ facility. In case Pre-dispatch inspection is waived at the discretion of TPSODL, then, MDCC shall be issued on receiving all the test reports-routine& type-from the Associate and finding them in order.

The associate shall include and provide for securely protecting and packing the materials so as to avoid loss or damage during handling and transport by air, sea, rail and road or any other means.

All such packing shall allow to the extent possible for easy removal and checking at Site. The associate shall take special precautions to prevent rusting of steel and iron parts during transit by sea. Gas seals or other materials shall be utilized by the associate for protection against moisture during transit of all Plant and Equipment.

Each Equipment or parts of Equipment shall be tagged with reference to the assembly drawings and corresponding part numbers. Each bale or package shall contain a packing note quoting specifically the name of the associate, item description, quantity, item / package identification.

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All packing cases, containers, packing and other similar materials shall be new and supplied free by the associate and it shall not be required to be returned to the associate.

Notwithstanding anything stated in this clause, the associate shall be entirely responsible for loss, damage or depreciation or deterioration to the materials and supplies due to faulty and/or insecure packing or otherwise during transportation to the Site until otherwise provided herein.

In case of the consignments dispatched by road, the associate shall ensure that it or its sub-contractors:

- i) Identify and obtain the correct type of trucks/trailers, keeping in view the nature of consignments to be dispatched.
- ii) Take such actions as may be necessary to avoid all possible chances of damages during transit and to ensure that all packages are firmly secured.

Timelines for inspection and MDCC is as below:

S. No.	Inspection	MDCC issuance time including inspection time (max.)
1	Outside Berhampur	12 days
2	Within Berhampur	5 days
3	Waiver*	3 working days

* Associate is expected to raise the inspection call assuming that Inspection shall be carried out by TPSODL. The decision for waiver of inspection shall be on sole discretion of TPSODL.

13.2 Right to Rejection on Receipt

Goods/Material/Equipment delivered in condition physically damaged & incomplete as a product ordered, or not packed and transported as per the terms and conditions of the contract is liable to be rejected. Such item shall be lifted back by Associates within 15 days from receipt of rejection note from TPSODL and have to supply back the material within next 30 days or within the timeframe mutually decided by Associate and TPSODL.

If delivery of the material is beyond the agreed time, Liquidated damage clause, mentioned in this GCC separately shall be applicable; but the period for levy of LD shall be considered as per the original delivery schedule and not from the agreed timelines for material rectification.

13.3 Consignee

Unless otherwise specified in the Contract Document / Purchase Order/ Release Order, Materials/Goods/Equipment shall be consigned to "Stores-In-Charge", TPSODL Berhampur

13.4 Submission of mandatory documents on Delivery

Following documents shall be mandatorily submitted by BA along with supply of material to TPSODL stores/site:

S. No.	Documents	Requisite
1	Invoice copy in original	With all consignments

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2	LR copy	Wherever required
3	Packing list	With all consignments
4	MDCC	With all consignments
5	Purchase order / Release order	Signed copy
6	Test certificates	With all consignments
7	Inspection/JVR report	In case pre-dispatch inspection is conducted
8	Device data in CD as per template for metering items	Wherever applicable

13.5 Dispatch and Delivery Instructions

S. No.	Instructions
1	Purchase order/ Release order no. shall be mentioned on invoice and on material
2	TPSODL material code and material description shall be mentioned in invoice and on material.
3	"Property of TPSODL" shall be embossed on material.
4	The material shall be properly sealed and packed in standard packing as per purchase order terms & conditions.
5	The weight and quantity of material shall be mentioned wherever applicable
6	The material supplied shall be co-related with the packing list.
7	The name plate detail on equipment shall include Material code, Material description, specification detail of material [as applicable], Serial No. Year of manufacturing, PO/RO no. and date, "PROPERTY OF TPSODL, Berhampur", Guarantee period and Associate's name.
8	In case of manual unloading, supplier / transporter shall deploy sufficient Labour for unloading the material at TPSODL Southern store. For heavy item(s), crane will be provided by TPSODL [unloading cost will be recovered from the associate].
9	The driver should have valid License and one helper in truck. All the documents of truck like registration papers, PUC etc. should be available in Truck.
10	BA representative should accompany the material and get it unloaded / stacked in his presence wherever possible.

14.0 GUARANTEE

14.1 Guarantee of Performance

Associates shall stand guarantee that the equipment and material supplied/service or work rendered under the contract is free from design, manufacturing, material, construction, erection & installation and workmanship & quality defects and is capable of its due, rated and intended quality performance, as an integrated product delivered under the contract. for a specific period termed as Guarantee Period (as elaborated elsewhere in this clause) The Associate should also guarantee that the equipment/material is new and unused except for the usage required for the tests and checks required as part of quality assurance.

14.2 Guarantee Period

The Guarantee Period will be equipment/service/work specific and shall be as specified in the Standard Specifications of TPSODL for the equipment/material/service/work and where

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standard specifications are not part of contract documents or guarantee period is not specified in the standard specifications,, the guarantee period shall be as per the Special Terms and Conditions of the Contract. In case of no mention of the guarantee period in standard specifications or SCC, Guarantee Period will be 15 Months from the Date of Commissioning or 24 months from the date of delivery of final lot of supplies made, whichever is earlier.

14.3 Failure in Guarantee Period (GP)

If the equipment and material supplied/service or work rendered under the contract fails to perform its due, rated & intended quality performance, during the Guarantee period, the associate is liable to undertake repair/rectify/replace the equipment and material supplied/service or work rendered under the contract within time frame specified in the SCC or elsewhere in the contract documents at associate's cost to make the equipment and material supplied/service or work rendered under the contract of performing its due, rated and intended quality performance. If Associate fails to repair/rectify/replace the equipment or material supplied/service or work rendered under the contract, failed in Guarantee Period, TPSODL will be at liberty to get the same done at Associate's risks and costs and recover all such expenses plus the TPSODL's own charges (@ 20% of expenses incurred), from the Associate or from the "Security cum Performance Deposit" as the case may be.

If during the Warranty/ Guarantee period some parts of the supplies are replaced owing to the defects/ damages under the Warranty, the Warranty period for such replaced parts shall be until the expiry of twelve months from the date of such replacement or renewal or until the end of original Guarantee period, whichever is later.

Any repairs during the Guarantee Period shall be carried out by the Associate within 30 days of reporting the issue to Associate by TPSODL. However, if replacement of the Equipment is required, Associate shall notify the same to TPSODL within 7 days of reporting the issue by TPSODL. Thereafter, the total time for supply of new equipment/ material shall be equal to the original delivery period of that equipment/ material as specified in the Contract. In case the Associate is not able to rectify/ replace the faulty equipment/ material within the stipulated timelines as mentioned above, penalty shall be levied as per the Liquidated Damages clause mentioned in this document. The penalty amount shall be recovered from the payment due to the vendor or by encashment of the SPBG as the case may be.

14.4 Cost of repairs on failure in GP

The cost of repairs/rectification /replacement, apart from the actual cost of repairs/rectification/replacement is also inclusive of all associate costs of required transportation, site inspection /mobilization/dismantling and re-installation costs as applicable, to be borne by the Associate. The Associate has to ensure that the interruption in the usage of intended purpose of the equipment is minimized to the maximum extent In lieu of the time taken for repairs/rectification/replacement.

14.5 Guarantee period for Goods Outsourced

If the Associate outsources partly equipment/materials/services from third party as mutually agreed upon at the pre award stage of contract, TPSODL shall have the benefit of any

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additional guarantee period if provided by the third party for the part supplied/executed by them.

14.6 Latent Defect

Hidden defects in manufacturing or design of the product supplied and which could not be identified by the tests conducted but later manifested during operation of the equipment are termed as latent defects. Associates shall further be responsible for 'free replacement' for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by the Company.

14.7 Support beyond the Guarantee Period

The Associate shall ensure availability of spares and necessary support for a period of at least 10 years post completion of guarantee period of equipment supplied against the contract.

15.0 LIQUIDATED DAMAGES

Liquidated damages @1% of the total executed contract value per week or part thereof, for the period of delay in integrated completion, subject to maximum 10% of the value of the contract shall become leviable without prejudice to other rights of the TPSODL. This amount shall be recoverable from any amount due or becoming due to the Business Associates under this or any other contract. In specific cases, TPSODL reserves the right to apply LD only on the unexecuted portion of the supply and works for standalone use, provided full quantity is executed within a maximum 30% additional time. Deduction of LD shall be on landed cost i.e. contract value inclusive of taxes and in pursuant statutory compliance GST would be applicable at the stipulated rate and the same shall be borne by Business Associate. In case of LD deduction, a GST invoice shall be issued by TPSODL as a proof of deduction/ recovery.

15.1 LD Waiver Request

Any request of LD waiver shall be submitted within thirty (30) days of deducting LD. Request submitted beyond the timeline shall not be entertained.

15.2 Material Recovery

In case of any recoveries for materials or services (for material free issued by TPSODL and not reconciled by BA or for services claimed and paid in excess at the time of running bills), the total cost which shall be recovered from the BA, shall be the gross amount of material or services (i.e. including taxes) plus applicable taxes as prevailing at the time of such recoveries.

16.0 ASSIGNMENT OR SUBCONTRACTING

Associates shall not assign/subcontract/outsource the schedule of activities of contract TPSODL enters with the associate, in part or full, without TPSODL's prior written approval. However, outsourcing of materials/equipment/services by Associate to make the integrated product for which TPSODL's has placed the contract with the associate from suppliers, makes and agencies which have been mutually agreed upon during contract pre-award stage is permitted subject to following conditions.

In such cases where outsourcing is done by the Associate

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- Shall ensure that outsourced suppliers comply with the technical and financial qualification requirements specified by TPSODL in the contract document
- Shall furnish all particulars about the proposed outsourcing agencies and the details of the goods/services/work outsourced to the Associate while seeking approval of TPSODL for inclusion for outsourcing. The Associate shall give approval or shall refuse approval in writing within thirty (30) days of receipt of such request. However, the Associate shall not be entitled for any additional contract execution time whatsoever in lieu of the process for approval for outsourcing agencies and shall be held responsible for any delay in the project execution time.
- Shall remain jointly and severally liable for any action, deficiency, and/or negligence on the part of his outsourcing agencies. The approval extended by the Associate to outsourcing agencies recommended by the Associate shall not discharge the later from his Contract obligations.

Shall submit to the Associate unpriced copies of purchase orders with technical specifications included in the orders, placed on outsourcing agencies as soon as the respective orders have been placed by the Associate.

17.0 UNLAWFUL ACTIVITIES

The Associate shall have to ensure that none of its employees are engaged in any unlawful activities (whether covered under the scope of the present GCC or not) subversive of the TPSODL's interest failing which appropriate action (legal or otherwise) may be taken against the Associate by the TPSODL, in accordance with the terms of the present GCC.

18.0 CONFIDENTIALITY

Associate and its employees or representatives thereof shall strictly maintain the confidentiality of various information they come across while executing the contract as detailed below.

18.1 Documents

All maps, plans, drawings, specifications, schemes and other documents or information related to the Contract/Project and the subject matter contained therein and all other information given to the Associate by the TPSODL in connection with the performance of the contract shall be held confidential by the Associate and shall remain the property of the TPSODL and shall not be used or disclosed to third parties by the Associate for any purpose other than for which they have been supplied or prepared. The Associate may disclose to third parties, upon execution of confidentiality agreements, such part of the drawings, specifications or information if such disclosure is necessary for the performance of the Work provided such third parties agree in writing to keep such information confidential to the same extent and degree as provided herein, for the benefit of the TPSODL.

18.2 Geographical Data

Maps, layouts and photographs of the unit/plant including its surrounding regions showing vital installation for national security of country or those of TPSODL shall not be published or disclosed to the third parties or taken out of the country without prior written approval of the TPSODL and upon execution of confidentiality agreements satisfactory to the TPSODL with such third parties prior to disclosure.

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18.3 Associate's Processes

Title to secret processes if any developed by the Associate on an exclusive basis and employed in the design of the equipment shall remain with the Associate. TPSODL shall hold in confidence such processes and shall not disclose such processes to the third parties without prior approval of the Associate and execution by such third parties of secrecy agreements satisfactory to the Associate prior to disclosure. Upon completion of contract, such processes shall become the property of the TPSODL. Title to technical specifications, drawings, flow sheets, norms, calculations, diagrams, interpretations of test results, schematics, layouts and such other information, which the Associate has supplied to the TPSODL under the Contract shall be passed on to the TPSODL. The TPSODL shall have the right to use these for construction, erection, start-up, Trial Run, operation, maintenance, modifications and/or expansion of the works including for the manufacture of spare parts.

18.4 Exclusions

The provision of Clauses 16.1 to 16.3 shall not apply to information:

- Which at the time of disclosure are in the public domain which later on become part of public domain through no fault of the party concerned, or
- Which were in the possession of the party concerned prior to disclosure to him by the other party, or
- Which were received by the party concerned after the time of disclosure without restriction on disclosure or use, from a third party who did not acquire such information directly or indirectly from the other party or has no obligation of confidentiality for such information.

18.5 Violation

In case of violation of this clause, the Associate is liable to pay compensation and damages as may be determined by the competent authority of TPSODL.

19.0 INTELLECTUAL PROPERTY RIGHTS

If, in the course of performance of its functions and duties as envisaged by the scope of the present GCC, the Associate acquires or develops, any unique knowledge or information which would be covered, or, is likely to be covered within the definition of a trademark, copyright, patent, business secret, geographical indication or any other form of intellectual property right, it shall be obliged, under the terms of this present GCC, to share such knowledge or information with the TPSODL. All rights, with respect to, or arising from such intellectual property, as afore mentioned, shall solely vest in TPSODL.

Moreover, the Associate undertakes not to breach any intellectual property right vesting in a third party/parties, whether by breach of statutory provision, passing off, or otherwise. In the event of any such breach, the Associate shall be wholly liable to compensate, indemnify or make good any loss suffered by such third party/parties, or any compensation/damages arising from any legal proceeding/s, or otherwise. No liability of TPSODL shall arise in this respect, and any costs, damages, expenses, compensation payable by TPSODL in this regard to a third party/parties, arising from a legal proceeding/s or otherwise, shall be recoverable from the Associate.

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20.0 INDEMNITY

The Associate shall at all times indemnify, keep indemnified and hold harmless the TPSODL and its officers, directors, employees, affiliates, agents, successors and assigns against all actions, claims, demands, costs, charges and expenses arising from or incurred by reason of any infringement of patent, trade mark, registered design, copy rights and/or industrial property rights by manufacture, sale or use of the equipment supplied by the Associate whether or not the TPSODL is held liable for by any court judgement. In this connection, the TPSODL shall pass on all claims made against him to the Associate for settlement.

The Associate assumes responsibility for and shall indemnify and save harmless the TPSODL from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by the TPSODL and its officers, directors, employees, affiliates, agents, successors and assigns arising from any breach of the Associate's obligations under the Contract or for which the Associate has assumed responsibilities under the Contract including those imposed under any local or national law or laws, or in respect to all salaries, wages or other compensation for all persons employed by the Associate or his Sub-Associates or suppliers in connection with the performance of any work covered by the Contract. The Associate shall execute, deliver and shall cause his Sub-Associate and suppliers to execute and deliver, such other further instruments and to comply with all the requirements of such laws and regulation as may be necessary there under to conform and effectuate the Contract and to protect the TPSODL.

The TPSODL shall not be held responsible for any accident or damages incurred or claims arising, due to the Associate's error there from prior to completion of work. The Associate shall be liable for such accidents and after completion of work for such accidents as the case may be due to negligence on his part to carry out Work in accordance with Indian laws and regulations and the specifications set forth herein.

21.0 LIABILITY & LIMITATIONS

21.1 Liability

Except for any specific liability which may be identified in the Contract and which may be payable hereunder, Associate shall not be liable for any special, incidental, indirect, or consequential Damages or any loss of business Contracts, revenues or other financial loss (or equivalents thereof no matter how claimed, computed or characterized) arising out of or in connection with the Performance of the Work or supply of Goods ***unless caused by Associate's negligence, willful misconduct or breach of contract.***

TPSODL shall have no liability or any special, incidental, indirect or consequential Damages for any loss of Business Contracts, revenues or other financial loss arising out of this Contract.

21.2 Limitation of Liability

The total liability of Associate against any contract shall be limited to the Total All Inclusive Contract Value.

22.0 FORCE MAJEURE

Force Majeure applies if the performance by either Party ("the Affected Party") of its obligations under Contract is materially and adversely affected.

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“Force Majeure” shall mean any event or circumstance or combination of events or circumstances referred below and their consequences that wholly or partly prevents or unavoidably delays any Party in the performance of its obligations under this Agreement, but only and to the extent that such events and circumstances are not within the reasonable control, directly or indirectly, of the Affected Party and could not have been avoided even if the Affected Party had taken reasonable care:

- Act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, embargo, blockade, revolution, riot, bombs, religious strife or civil commotion, etc.
- Politically motivated sabotage, or terrorism, etc.
- Action or Act of Government or Governmental agency for which remedy is beyond the control of the affected parties.
- Any act of God.

Note: Causes like power breakdown/ shortages/fire/strikes, accidents etc. do not fall under Force Majeure.

Time being the essence of the Contract, if either party is prevented from the performance of its obligations in whole or in part due to an event of Force Majeure, then provided Notice of happening of any event by the Affected Party is given to the other party within seven (7) days from the date of occurrence of such event, which DIRECTLY has impact on works and submitted details and quantum of resulting effect, but at the same time had made all possible efforts to mitigate and overcome effects thereof, the Affected Party's performance under this Contract shall be suspended until such event ceases and the Scheduled Completion shall be delayed accordingly.

If Force Majeure event(s) continue for a period of more than three months, the parties shall hold consultation to discuss the further course of action.

Neither party shall be considered to be in default or in breach of its obligation under the Contract to the extent that performance of such obligation by either party is prevented by any circumstances of Force Majeure which arise after effective date of Contract.

Neither party can claim any compensation from the other party on account of Force Majeure.

23.0 SUSPENSION Of CONTRACT

23.1 Suspension for Convenience

TPSODL may, at any time and at its sole option, suspend execution of all or any portions of the schedule of items of contract to be supplied/work to executed by Associate under the contract by providing to the Associate at least two business days written notice for contracts having contract completion period less than sixty days and at least seven business days' notice for all other contracts.

Upon receipt of any such notice, the Associate shall respond as follows as applicable as per contract construction.

- Immediately discontinue further supply of material/goods specified in the suspension notice for supply contracts

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- Immediately discontinue further service/work and supply of materials of those services/materials/work specified in the suspension notice for service /composite contract
- Promptly make every reasonable effort to obtain suspension, upon terms satisfactory to TPSODL, of all orders, outsourcing arrangements, and rental Contracts to the extent that they relate to performance of the portion of Work suspended by the notice.
- Protect and maintain the portion of the service/Work already completed, including the portion of the Work suspended hereunder, unless otherwise specifically stated in the notice.
- Continue delivering/carrying out the supply/service/work items as per contract conditions, which do not fall under purview of the suspension notice.

On receipt of resumption notice from TPSODL, the Associate shall resume execution of contract as specified in the resumption notice, within the time frame specified in the resumption notice,

23.2 Suspension for Breach of Contract conditions.

TPSODL shall suspend execution of whole/or part thereof the contract till such time Associate complies with the conditions stipulated under section clause 27 for breach/default of contract conditions.

23.3 Compensation in lieu of Suspension

If the suspension of the contract in whole or in part is for convenience of TPSODL and not due to any breach of contract conditions by the associate, TPSODL at its discretion shall consider compensating all reasonable additional costs incurred by Associate in lieu of suspension of whole or part of contract, on representation of the Associate providing justified estimates of such additional costs and such estimates are found acceptable and approved by competent authority of TPSODL.

If the suspension of contract in whole or part thereof is due to breach of contract conditions (refer clause 24.3) by the Associate, Associate shall not be entitled for any compensation for any cost incurred in lieu of suspension of whole or part of contract and also shall be liable for compensating all the losses arising to TPSODL in lieu of suspension of contract. Resumption notice shall be subject to the Associate taking corrective action for the breach of contract conditions within the time frame and as per the terms specified in the suspension notice.

24 TERMINATION OF CONTRACTS

24.1 Termination for Default/Breach of Contract

The contract / PO shall be subject to termination by TPSODL in case of breach of the contract by the Associate which shall include but not be limited to the following:

- a. Withdrawal or intimation by the Associate of its intent to withdraw or surrender the execution / completion of the contracted work /PO or failure in ensuring adherence to any delivery schedules, in deviation of the contract/ PO.
- b. Refusal or neglect on the part of the Associate to supply material/equipment of quantity or quality as specified by TPSODL and within the timeframe as specified in the contract

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document or refusal or neglect to execute the services/work in terms of the agreed standards of quantity or quality and/or within the timeframe specified in the contract/PO.

- c. Failure in any respect to perform any portion of the Work contracted with promptness, diligence, or in accordance with the terms of the contract.
- d. Failure to furnish guarantees as specified and /or failure to comply with the terms thereof.
- e. Failure to furnish such relevant documents or information within the time specified which may be necessary for due execution / completion of the works and documentation.
- f. Liquidation, bankruptcy either voluntary or involuntary OR entering into any composition or compromise with its creditors, or Insolvency.
- g. In case any reasonable information has been received by TPSODL that Associate has adopted/ or attempted to adopt any unethical conduct, action in award of the contract /PO or at any time thereafter.
- h. Failure to comply with applicable statutory provisions as contained in the contract or failure to comply with the applicable laws.
- i. Failure to comply with safety regulations/clauses stipulated in the contract or as may be generally instructed by TPSODL.

If the default or breach as specified under clause 24 (except sub clause g thereof) be committed by the associate for the first time, TPSODL shall issue, along the with notice of default or breach, a warning notice instructing the associate to take remedial/corrective action within the time frame stipulated in the warning notice and not to repeat the same in future. The timeframe for corrective action by the associate shall be specific to the nature of breach of contract and the same shall not be objected to by the Associate. If the Associate fails to comply with the instructions in the warning notice or in taking corrective action to the satisfaction of TPSODL then TPSODL may terminate the entire or part of contract at its discretion by issuing termination notice without incurring any liability on this ground.

In case the contract is terminated for any breach of the nature specified in clause 24 g stated above, TPSODL shall have the right to terminate all the contracts TPSODL is having with the Associate by issuing termination notice which shall be without prejudice to the other rights of TPSODL available to it under law.

Without prejudice to its right to terminate for breach of contract, TPSODL may, without assigning any reason, terminate the Contract in whole or in part at any time at its discretion while the contract is in force by serving a written notice of two weeks to the Associate.

In the event of TPSODL having proceeded with termination of the contract the associate shall comply and proceed further in the following manner:

- i) Associate shall discontinue the supply, on the expiry of the said period of two weeks.
- ii) Associate shall ensure that no further steps are being taken towards discharge of the obligations, terms and conditions as contained in the contract/PO. This shall include initiation of actions not limited to discontinuation of other allied and associated arrangements which the associate might have entered with third parties for due discharge of its obligations under the contract with TPSODL.

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iii) The Associate shall perform thereafter such tasks as may be necessary to preserve and protect the terminated portion of the material/service/work in progress and the materials and equipment at TPSODL sites or in transit thereto. However, the associate shall continue to fulfill its contractual obligations with regard to the part of contract not terminated.

iv) It shall be open for TPSODL to conduct a joint assessment with the associate of the material ,supplies, equipment ,works or in general as to the subject matter of the contract in regard to which the associate claims having completed its obligations before or during such termination.

v) It shall be open to TPSODL to seek invocation of the performance bank guarantee or any other guarantee or other security deposit by whatever name called submitted by the associate, which shall not be objected to or protested by the associate.

In case of termination of the contract the parties agree to be governed inter alia by the following:

a) In case TPSODL exercises its right of termination as stated above the associate shall not dispute or object to the same.

b) The Associate shall be entitled to receive and claim only such payments OR sums of money from TPSODL as may be found payable to it in regard to works executed by it under the terms of the contract and no other claim of any nature whatsoever shall be made by the Associate.

c) All such provisions which the parties have agreed to survive and prevail even after termination of the contract shall remain effective despite the termination.

In the event of such termination, TPSODL may finish the Work by whatever method it may deem expedient, including the hiring of services and /or purchase of material equipment from such third parties as TPSODL may deem fit or may itself provide any labor or materials and perform any part of the Work. The associate undertakes to bear the incremental costs if any paid by TPSODL in such a case attributable to failure on the part of the associate. The Associate in such a case shall not be entitled to receive any further payments and any sums found payable to it may be adjusted by TPSODL against the amount recoverable from him on this ground. The same shall be without prejudice to other rights available to TPSODL under law against the associate.

Upon the termination of any of the contract due to occurrence of any circumstances provided in clauses stated above and constituting repeated breach or misconduct, TPSODL shall be entitled to bar the associates its agents, affiliates from undertaking any negotiation/ tendering, bidding, participation activities concerning TPSODL for a period of two years from date of such termination. The same shall be without prejudice to other rights available to TPSODL.

24.2 Termination for convenience of Associate

Associate at its convenience may request for termination of contract, clearly assigning the reason for such request. TPSODL has full right to accept, reject or partially accept such request. This convenience will be available to associate only after one year from the contract effective date. For this purpose, associate will provide a notice period of 90 days to TPSODL, Associate will have to pay TPSODL a 'termination convenience fee' equivalent to 5% of unexecuted contract value.

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24.3 Termination for Convenience of TPSODL

TPSODL at its sole discretion may terminate the contract by giving 30 days prior notice in writing or through email to the Associate. TPSODL shall pay the Associate for all the supplies/ services rendered till the actual date of contract termination against submission of invoice by the Associate to that effect.

25.0 DISPUTE RESOLUTION & ARBITRATION

In case of any dispute or difference the parties shall endeavor to resolve the same through conciliatory and amicable measures within 15 Days failing which the matter may be referred by either party for resolution by the sole arbitrator to be appointed mutually by both the parties. The arbitral proceedings shall be conducted in accordance with Arbitration and Conciliation Act 1996 and the place of arbitration shall be Berhampur. The language to be used at proceedings shall be English and the award of the arbitrator shall be final and binding on the parties. The parties shall bear their respective costs of arbitration. The associate shall continue to discharge its obligations towards due performance of the works as per the terms of the contract during the arbitration proceedings unless otherwise directed in writing by TPSODL or suspended by the arbitrator. Further, TPSODL shall continue making such payments as may be found due and payable to the associate for such works.

25.1 Governing law and jurisdiction

The parties shall be subject to the jurisdiction of the courts of law in Berhampur and any matter arising here from shall be subject to applicable law in force in India.

26.0 ATTRIBUTES OF GCC

26.1 Cancellation

The Company reserves the right to cancel, add, delete at its sole discretion, all or any terms of this GCC or any contract, order or terms agreed between the parties in pursuance without assigning any reasons and without any compensation to the Associates.

26.2 Severability

If any portion of this GCC is held to be void, invalid, or otherwise unenforceable, in whole or part, the remaining portions of this GCC shall remain in effect.

26.3 Order of Priority

In case of any discrepancies between the stipulations in General Conditions of the Contract (GCC) and Special Conditions of Contract (SCC), the GCC shall stand superseded by the SCC to the extent stipulated hereinabove while balance portion of respective clauses of GCC shall continue to be applicable.

27.0 INSURANCE

The Associate shall arrange accident insurance policy for his foreign experts/specialists/personnel deputed to Site and Associate's/his sub-Associates' manufacturing works as well as for his Indian engineers and supervisory staff. The Associate shall also take out for his Indian workmen, where applicable, a separate policy as required under Workmen's Compensation Act.

Associates shall be responsible to suitably insure their entire work-force (to the extent of at least meeting requirements under Workmen Compensation Act) Tools, Plant, Third party

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liability at the project site, All Risk comprehensive insurance for the entire works (insurance for free issue items will be in TPSODL scope) for total contract (PO/RO) value or any other such risks during execution of works, till the works are handed over to the company, in consultation with TPSODL and shall submit copies of such insurances to the Engineer-in-Charge for review / acceptance before commencing the work. Engineer-in-charge must ensure compliance to insurance requirement by Associate before commencement of works. TPSODL shall stand fully indemnified in this respect.

BA will also ensure purchase of Special Covid Insurance policy of ₹ 5 lacs for the legal heir(s) of deceased BA employees (in case of death due to Covid- 19)

- i. BA to take appropriate Special Covid Insurance policy from a reputed insurance agency prevailing in the market so that all the BA employees are covered under the purview of ₹ 5,00,000/- compensation, in case of death due to Covid -19.

BA shall be required to purchase the policy immediately post receipt of LOI / Work Order.

- ii. If it is found that the BA employee(s) is/are not covered under the purview of Special Covid Insurance Policy, the concerned BA shall be liable to pay the entire sum of ₹ 5,00,000/-.
- iii. Cost of the Covid Insurance policy shall be borne @50% each by the BA and TPSODL. BA will be reimbursed @50% of the Annual Premium based on the original money receipt and policy copy.

28.0 ERRORS AND OMISSIONS

The Associate shall be responsible for all discrepancies, errors and omissions in the drawings, documents or other information submitted by him, irrespective of whether these have been approved, reviewed or otherwise accepted by the TPSODL or not. However, any error in design/drawing arising out of any incorrect data/written information from TPSODL will not be considered as error and omissions on part of the Associate.

29.0 TRANSFER OF TITLES

The title of ownership and property to all equipment, installations, erections, constructions materials, drawings & documents shall pass to the TPSODL after Commissioning and complete handing over-taking over.

However, such passing of title of ownership and property to the TPSODL shall not in any way absolve, dilute or diminish the responsibility and obligations of the Associate under this Contract including loss or damages and all risks, which shall vest with the Associate.

The Associate shall take all corrective measures arising out of discrepancies, errors and omissions in drawings and other information within the time schedule and without extra cost to the TPSODL.

The Associate shall also be responsible for any delay and/or extra cost if any, in carrying out engineering, and site works by other agencies arising out of discrepancies, errors and

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omissions stated in as well as of any late revision/s of drawings and information submitted by the Associate.

30.0 SUGGESTIONS & FEEDBACK

We welcome all our Business Associates to write to us about their experience with TPSODL; be it our Company, our services or our people. Each and every concern, issue, query and suggestion from you will help us to become a better company to work with and shall help us develop a strong bonding of trust and a long term relationship with you.

You may send your feedback by filling up our Business Associate Feedback Form enclosed herewith as Annexure-I. You can also log on to our website www.tpsouthernodisha.com to provide your feedback according to the guidelines mentioned below:

31.0 CONTACT POINTS

In case Business Associate needs information with respect to payments or has any grievances, same may be lodged by log on to our website www.tpsouthernodisha.com

32.0 LIST OF ANNEXURES

S. No.	Subject	Annexure
1.	Performa for Bid Security Bank Guarantee	A
2.	Performa for Advance Payment Bank Guarantee	B
3.	Performa for Performance Bank Guarantee (CP cum EP)	C
4.	Performa for No Demand Certificate by Associate	D
5.	Performa for Indemnification on Statutory Compliance	E
6.	Performa For Application For Issuance of Consolidated TDS Certificate	F
7.	HR Service Level Agreement	G
8.	Under taking for competence of workmen	H
9.	Business Associate Feedback Form	I
10.	Acceptance Form For Participation In Reverse Auction Event	J
11.	NEFT or RTGS payment request form	K
12.	Contractor Safety Management System	L
13.	Vendor Appraisal Form	M
14.	Manufacturers Authorization Form	N

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ANNEXURE-A

PROFORMA FOR BID SECURITY BANK GUARANTEE

TP Southern Odisha Distribution Limited

Berhampur

WHEREAS, (Name of the Bidder) _____ (hereinafter called "the BIDDER") has submitted his bid dated _____ for the (Name of Contract) _____ (hereinafter called "the BID").

KNOW ALL men by these presents we (Name of the Bank) _____ of (Name of the Country) _____ having our registered office at _____ (hereinafter called "the BANK") are bound unto TP Southern Odisha Distribution Limited (TPSODL) in the sum of _____ for which payment well and truly to be made to the TPSODL the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 20_____.

The CONDITIONS of this obligation are:

i) If the Bidder withdraws his Bid during the period of bid validity specified in the Proforma of Bid

or

ii) If the Bidder having been notified of the acceptance of his Bid by the TPSODL during the period of bid validity fails or refuses to furnish the Contract Performance Bank Guarantee, in accordance with the Instructions to Bidders.

We undertake to pay the TPSODL up to the above amount upon receipt of its first written demand, provided that in its demand the TPSODL will note that amount claimed by it is due to it owing to the occurrence of one or both conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date (No of days as mentioned in tender enquiry) days after the closing date of submission of bids as stated in the Invitation to Bid or as extended by you at any time prior to this date, notice of which extension to the Bank being hereby waived, and any demand in respect thereof should reach the Bank not later than the above date.

DATE.....

SIGNATURE

OF

THE

BANK.....

WITNESS.....

SEAL.....

(Signature, Name & Address)

(At least 2 witnesses)

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ANNEXURE-B

PROFORMA FOR ADVANCE PAYMENT BANK GUARANTEE

(On Rs.100/- Stamp Paper)

Note:

- (a) Format shall be followed in toto
- (b) Claim period of six months must be kept up
- (c) The guarantee to be accompanied by the covering letter from the bank confirming the signature to the guarantee

TP Southern Odisha Distribution Limited

Berhampur

Advance Payment B.G.No.....

Contract No.....dated.....

1. You have entered into a Contract No _____ with M/s. _____ (hereinafter referred to as "the Vendor") for the supply and delivery of _____ (hereinafter referred to as "the said Equipment") for the price and on the terms and conditions contained in the said contract.
2. In accordance with the terms of the said contract, you have agreed to make an advance payment of Rs. _____ (Rupees _____ only) being _____% (_____ percent) of the total value of the contract on "the Vendor" furnishing you with an irrevocable, unconditional and acceptable bank guarantee to be valid till the date of receipt of "the said equipment" covered by your above mentioned contract. For this purpose you have agreed to accept our guarantee.
3. In consideration thereof, we, _____ hereby irrevocably and unconditionally guarantee to pay to you on demand but in any case before the end of five working days from the date of the claim and without demur and without reference to "the Vendor" such amount or amounts not exceeding the sum of Rs. _____ (Rupees _____ only) being _____% (_____ percent) of the total value of the contract on receipt of your intimating that "the Vendor" has not fulfilled his contractual obligations. You shall be the sole judge for such non-fulfillment and "the Vendor" shall have no right to question such judgment.
4. You shall have the right to file / make your claim on us under the guarantee for a further period of three months from the date of expiry.
5. This guarantee shall not be revoked without express consent and shall not be affected by your granting time or any other indulgence to "the Vendor", which shall include but

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not be limited to, postponement from time to time of the exercise the same in you or any right which you may have against "the Vendor" and to exercise the same in any covenant contained or implied in the said contract or any other course or remedy or security available to you, and our Bank shall not be released from its obligations under this guarantee by your exercising any of your rights with reference to matters aforesaid or any of them or by reasons of any other act or forbearance or other acts of omission or commission on your part or any other indulgence shown by you or by any other matter or thing whatsoever which under the law would, but for this provision have the effect of relieving our bank from its obligation under this guarantee.

6. We also agree that you shall be entitled at your option to enforce this guarantee against our bank as a principal debtor, in the first instance, notwithstanding any other security or guarantee that you may have in relation to "the Vendor's" liabilities in respect of the premises
7. This guarantee shall not be affected by any change in the constitution of our Bank or "the Vendor" or for any other reason whatsoever.
8. Any claim / extension under the guarantee can be lodge-able at outstation banks or at Berhampur branch and claim will also be payable at Berhampur Branch **(to be confirmed by Berhampur Branch by a letter to that effect)**
9. Notwithstanding anything herein contained, our liability under this guarantee is limited to Rs. _____
(Rupees _____ only) and the guarantee will remain in force up to and including _____ (Date) and shall be extended from time to time for such period or period as may be desired by "the Vendor".
10. Unless a demand or claim under this guarantee is received by us in writing within one month from _____ (expiry date) i.e. on or before _____ (claim period end date), we shall be discharged from all liabilities under this guarantee thereafter.

Dated at _____ this _____ day of _____ 200 _____

Witness

1. _____

Bank's rubber stamp

Banks full address

2. _____

Designation of Signatory

Bank official number

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ANNEXURE- C

PROFORMA FOR PERFORMANCE BANK GUARANTEE (CP cum EP)

(On Rs.100/- Stamp Paper)

Note:

- (a) Format shall be followed in toto
- (b) Claim period of one month must be kept up
- (c) The guarantee to be accompanied by the covering letter from the bank confirming the signature to the guarantee

TP Southern Odisha Distribution Limited

Berhampur

CP cum EP BG No.....

Order/Contract No.....dated.....

1. You have entered into a Contract No _____ with M/s. _____ (hereinafter referred to as "the Vendor") for the supply cum erection / civil work of _____ (hereinafter referred to as "the said Equipment") for the price and on the terms and conditions contained in the said contract.
2. In accordance with the terms of the said contract, "the Vendor" agreed to furnish you with an irrevocable, unconditional and acceptable bank guarantee for 10% of the value of contract and to be valid till the end of Guarantee period plus one month towards "Contract cum Equipment performance". For this purpose, you have agreed to accept the guarantee.
3. In consideration thereof, we, _____ hereby irrevocably and unconditionally guarantee to pay to you on demand but in any case before the end of five working days from the date of the claim and without demur and without reference to "the Vendor" such amount or amounts not exceeding the sum of Rs. _____ (Rupees _____ only) being _____ % (_____ percent) of the total value of the contract on receipt of your intimating that "the Vendor" has not fulfilled his contractual obligations. You shall be the sole judge for such non-fulfillment and "the Vendor" shall have no right to question such judgment.
4. You shall have the right to file / make your claim on us under the guarantee for a **further period of three month** from the date of expiry.
5. This guarantee shall not be revoked without express consent and shall not be affected by your granting time or any other indulgence to "the Vendor", which shall include but not be limited to, postponement from time to time of the exercise the same in you or any right which you may have against "the Vendor" and to exercise the same in any covenant contained or implied in the said contract or any other course or remedy or security

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available to you, and our Bank shall not be released from its obligations under this guarantee by your exercising any of your rights with reference to matters aforesaid or any of them or by reasons of any other act or forbearance or other acts of omission or commission on your part or any other indulgence shown by you or by any other matter or thing whatsoever which under the law would, but for this provision have the effect of relieving our bank from its obligation under this guarantee.

6. We also agree that you shall be entitled at your option to enforce this guarantee against our bank as a principal debtor, in the first instance, notwithstanding any other security or guarantee that you may have in relation to "the Vendor's" liabilities in respect of the premises
7. This guarantee shall not be affected by any change in the constitution of our Bank or "the Vendor" or for any other reason whatsoever.
8. Any claim / extension under the guarantee can be lodge-able at outstation banks or at Berhampur branch and claim will also be payable at Berhampur Branch (to be confirmed by Berhampur Branch by a letter to that effect in case BG is from the branch outside Berhampur)
9. Notwithstanding anything herein contained, our liability under this guarantee is limited to Rs. _____ (Rupees _____) only and the guarantee will remain in force up to and including _____ (Date) and shall be extended from time to time for such period or period as may be desired by "the Vendor".
10. Unless a demand or claim under this guarantee is received by us in writing within one months from _____ (expiry date) i.e. on or before _____ (claim period end date), we shall be discharged from all liabilities under this guarantee thereafter.

Dated at _____ this _____ day of _____ 200__

Witness

1. _____

Bank's rubber stamp

Banks full address

2. _____

Designation of Signatory

Bank official number

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ANNEXURE-D

PROFORMA FOR “NO DEMAND CERTIFICATE” BY ASSOCIATE

(On Company's Letter head or with Company Seal)

(To be submitted by the Associate to TPSODL Accounts Department at the time of receipt of full and final payment)

(Certificate No. CCP/002)

Name of the Project

Order/ Contract No.

Dated

Name of the Associate

Scheme No. / Job No.

We, M/s. _____ (Associate) do hereby acknowledge and confirm that we have received the full and final payment due and payable to us from TPSODL, in respect of our aforesaid Order No _____ dated _____ including amendments, if any, issued by TPSODL to our entire satisfaction and we further confirm that we have no claim whatsoever pending with TPSODL under the said contract / W.O.

Notwithstanding any protest recorded by us in any correspondence, documents, measurement books and / or final bills etc., we waive all our rights to lodge any claim or protest in future under this contract.

We are issuing this “NO DEMAND CERTIFICATE” in favor of TPSODL, with full knowledge and with our free consent without any undue influence, misrepresentation, coercion etc.

Dated

Signature

Place

Name

Designation

(Company Seal)

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ANNEXURE – E

PROFORMA FOR “INDEMNIFICATION ON STATUTORY COMPLIANCES”

(To be submitted by the successful Bidder within seven days of award of work)

(Certificate No. CCP/001)

Name of the Project

Letter of Award / Contract No.

Dated

Name of the Associate

Scheme No. / Job No.

By this confirmation we, _____
(Associate) are formally bound to M/s. TPSODL towards any sum which may be imposed, levied or hereinafter recovered by the Provident Fund Organization under the provisions of the Employees of the Provident Fund and Miscellaneous Provisions Act 1952 in respect of employees employed by us.

We well and truly bind ourselves and our heirs executors administrators and representatives jointly severally and respectively for the above payment only to be paid to M/s. TPSODL.

AND WHEREAS we, _____ (Associate)
is making compliance of the Employees Provident Fund and Miscellaneous Provisions Act 1952, have entered into the above written bond for the indemnity to M/s. TPSODL against all losses from the acts or default of the said Associate in respect of compliance of the Provident Fund Act.

Similarly, we hereby confirm that we have complied with all statutory and local laws and nothing is outstanding with regard to Local Sales Tax, Labor Laws, Local Municipal dues, Electricity dues etc. We have entered into the above written bond for the indemnity to M/s. TPSODL against all losses from the acts or default of the said Associate in respect of compliance of the Local Sales Tax Laws, Local Laws, Labor Laws, Local Municipal Dues, Electricity dues etc.

NOW THE CONDITION, of the above written bond is as such that if the Associate during the period of this contract commits any default or fails to make payment of Contributions in respect of his employees to the Employees Provident Fund Organization, he shall indemnify the Principal Employer M/s. TPSODL from all and every loss and damage caused to them from any act, omissions or negligence of the said Associate in respect of compliances under the Employees Provident Fund and Miscellaneous Provisions Act, 1952.

IN WITNESS to the above written bond we have here to set our hands, with our free consent.

Dated

Signature

Place

Name

Designation (Company Seal)

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ANNEXURE-F

**PROFORMA FOR APPLICATION FOR ISSUANCE OF CONSOLIDATED TDS
CERTIFICATE**

To be printed on the letterhead

To,

TP Southern Odisha Distribution Limited,

Berhampur

Sub: Application for issuance of Consolidated TDS Certificate for the FY _____

Dear Sir,

I / we hereby request / authorize you to issue me / us a consolidate TDS Certificate for the financial year _____ against tax deducted at source by you from my / our payments / bills during the said year from time to time under Chapter XVII – B of the Income Tax Act, 1961.

For and on behalf of

Signature

Name

Address

Contact No. (Land Line)

(Mobile)

PAN #

Assessing authority

ATTACH THE COPY OF PAN CARD

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ANNEXURE - G

SERVICE LEVEL AGREEMENT

(To be adhered to by Business Associates (BAs) in TPSODL on Human Resource Issues)

1.0 The following shall be adhered to by the Business Associates during his / its association with TPSODL:

Shall Abide by Tata Core Values:

- a) **Integrity** – We must conduct our business fairly, with honesty and transparency. Everything we do must stand the test of public scrutiny.
- b) **Understanding** – We must be caring, show respect, compassion and humanity to our colleagues and customers and always work for the benefit of the communities we serve.
- c) **Excellence** – We must constantly strive to achieve the highest possible standards in our day to day work and in the quality of services we provide.
- d) **Unity** – We must work cohesively with our colleagues across the group and with our customers and partners to build strong relationships based on tolerance, understanding and mutual co-operation.
- e) **Responsibility** – We must continue to be responsible and sensitive to the communities and environments in which we work and always ensuring that what comes from the people; goes back to the people many times over.
- f) **Agility**- We must work in a speedy and responsive manner and be proactive and innovative in our approach.

2.0 The Business Associate / his manager / supervisor who is responsible for managing the project site / performance contract etc. in TPSODL would also ensure adherence of these values by his employees / persons deployed by him in connection with his works undertaken in TPSODL.

3.0 The Business Associates are required to:

- a) Support and respect the protection of human rights and make sure that they are not complicit in human right abuses.
- b) Respect freedom of association and effective recognition of the right to collective bargaining.
- c) Not to resort to any form of forced and compulsory labour.
- d) Shall ensure abolition of child labour in his area of work.
- e) There is no discrimination in respect of employment and occupation in respect of his employees.
- f) Support precautionary approach to environmental challenges.
- g) Promote greater environmental responsibility by himself and his employees in his areas of work.
- h) Deploy and defuse environment friendly technologies while carrying out the works.
- i) Work against corruptions in all its form including extortion and bribery by himself and his employees.

4.0 The Business Associates are required to adhere to all applicable labour Laws with special reference to the following:

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- a) No person below the age of 18 years and no child labour will be engaged directly or indirectly for executing the work connected with the business of TPSODL.
- b) Minimum wages along with other statutory dues like PF, ESI, etc. as applicable to the workers shall be made within the prescribed period of 7th / 10th day of the following month.
- c) Deduction / deposit / record keeping and all other requirements under Employees PF Act 1952, Employees State Insurance Act 1948 and other applicable acts (if any) shall be adhered to.
- d) Only statutorily authorized deductions (if any) shall be made in accordance with the relevant statutes.
- e) All the provisions of Contract Labour (R&A) Act 1970 shall be complied with in respect of the workers engaged for TPSODL work. The work will be commenced only after completing necessary formalities for obtaining Labour License (if applicable).
- f) Necessary registers / records, filing of returns etc. shall be maintained for verification by Statutory / TPSODL authorities.
- g) Payment of wages shall be made only in presence of and with certification of authorized representative of TPSODL or shall be made in the form of cheque / bank transfer to the employee.
- h) During the period of contract, the Business Associate will arrange for deployment of his supervisor / manager for total supervision and control of the work and their manpower. All the activities related to their manpower e.g. attendance, leave, wage disbursement etc. will be done under the supervision & control of Business Associates, while adhering to the prescribed standard / norms of production / productivity & quality. During execution of the work, Business Associate shall engage only such qualified / skilled manpower as may be envisaged / required for ensuring level of production / service into the contract / work order.
- i) Clearances as follows shall be obtained from IR & Welfare Group:
 - i. Clearance for commencement (before start of the work).
 - ii. No Objection Certificate (after completion / before final settlement).
 - iii. Copies of PF / ESI Challans shall be deposited with IR & Welfare Group every month
- j) The Business Associate shall indemnify TPSODL from any liabilities under applicable Labour Statutes.
- k) The Business Associate shall ensure safety and health of his employees and shall also maintain hygienic working environment / condition in his area of work.
- l) The Business Associate and his employee shall abide by Laws of Land and shall not violate any applicable provisions.
- m) The Business Associate appreciates with and acquiesces to the right of TPSODL as principal employer to fulfil any of his legal obligations, if he fails to do so under applicable labour laws and deduct the same from his running bills / final payments / encashing security deposit / Bank Guarantee as the case may be. If there is any further shortfall TPSODL has the right to recover the same from the Business Associate.
- n) The Business Associate ensures that person employed by him adhere to the moral and legal conduct and shall not violate any standard conduct envisaged in the premise of

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TPSODL by all such as, Transparency, Safety, Discipline, Integrity etc. The Business Associate or his employees should refrain from corrupt practices, giving or taking bribe in connection with any TPSODL business.

5.0 The 'Statutory Compliance Enforcement System' in TPSODL is detailed below for adherence by all concerned. Business Associate Cell (BA Cell) will be the process owner for implementation of the system with the help of concerned Engineer I/c or Officer I/c.

- a) Statutory Compliance being a professed value in TPSODL Code of Conduct, the concerned Engineer / Officer in charges are requested to adhere to the provisions and advise respective Business Associates in their domain to comply in letter and spirit.
- b) Immediately after issuance of letter of intent, the authorized representative of the Business Associate will report to BA Cell for completion of statutory requirements.
- c) Normally, the work will be started only after 'Clearance for Commencement of Work (CCW)' is issued by BA Cell to the Business associate. However, in exceptional exigencies in engineer I/c / Officer I/c may direct the Business Associate to start the work and inform BA Cell about the same. Statutory requirements in this case may be completed in parallel.
- d) First monthly bill will be released only after producing CCW to the finance department. Similarly closure of work and final settlement will be affected after issuance of no objection certificate from BA Cell group.

6.0 Requirements for 'Clearance for Commencement of Work' (CCW):

- a) Submission of filled up Form 'A' for database (Annexure-1).
- b) Copy of PF Code allocation letter.
- c) Copy of ESI Code allocation letter.
- d) Submission of duly filled up Form IV CL(R&A) act (In case more than or equals to 20 workers during the period of contract).
- e) Submission of duly filled up Form VI A (Notice of Commencement).
- f) Copy of insurance cover note under WC Act 1923 (if applicable).
- g) Copy of Contract Agreement.
- h) Copy of indemnity bond (if applicable).
- i) Affidavit with regard to payment of wages through cheque / bank transfer only.

7.0 Requirements during execution of work:

- a) Copy of receipt of application for license / license (if applicable).
- b) Copy of PF Challan (latest by 26th day of every Month).
- c) Copy of ESI Challan (latest by 26th day of every Month).
- d) Copy of Wage disbursement sheet / Bank statement.
- e) Filing / Maintenance of all statutory registers / reports / returns for inspection by Statutory/ TPSODL authorities.
- f) Certification of wage disbursement by authorized representative of TPSODL.
- g) Copy of 'Labour Welfare Fund' deposit certificate / Challan.
- h) Insuring safe working practices at the workplace.

8.0 Requirements for 'No Objection Certificate' (NOC) for closure of work:

- a) Submission of duly filled up Form VI A (Notice of Completion).
- b) Copy of Half yearly / Annual return for ESI / PF / CL(R&A).

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- c) Consolidated copy of wage sheet of last month indicating full & final settlement of all dues like retrenchment benefit, bonus, leave encashment etc. Copy of individual declaration by employees in Form X regarding termination of employment.
- d) Confirmation certificate regarding filling up of form for transfer / withdrawal of PF by the concerned workers.

In case any of the above are deviated / not complied with the Letter of Award/Order shall be liable to be withdrawn / cancelled.

Enclosure:

- 1) Form A
- 2) Form X
- 3) Form XI
- 4) Form VI A
- 5) Form XXIV

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FORM (A)

[To be submitted by the Business Associate to the Principal Employer within a week from LoA issuance]

A. Details of the Agency

1. Name of Agency :
2. Nature of work :
3. Local Address with Ph.No. :
(With Father's name) :
4. Permanent Address (Full) :
5. PF code no. & Place :
6. ESI Code no. & Place :
7. Name and address of :
Sub-contractor (if any)

B. Details of Work

8. Name of work (as specified in LOI/LOA) :
9. LOI/LOA Nos. & Dates :
10. Period of contract (Specify Dates) :
[Including Extension period, if any] :
11. Work Area [Department / Location] :
12. Name / Cell no. of Officer I/c :
13. Maximum No. of workers and staff to be engaged on any day during the year.
 - Supervisory Staff :
 - Workers :
14. Do you have any other contract in TPSODL : Yes/No
If yes, furnish details:

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15. Details of Workmen's compensation Policy, if applicable

Name of Insurance Company
.....Policy No Number of persons
covered Period of coverage: From To

If no, I hereby undertake the liability arising out of Workmen's Compensation Act and Rules made there under.

C. Details of workers to be engaged

No. of Workers

S. No.	Unskilled*	Semi-skilled*	Skilled*	Clerical / Supervisory

*** Number to be indicated**

I/We shall fulfill all obligations arising from and under all relevant law in force from time to time. I/We undertake to keep the TPSODL indemnified against any loss or liability arising out of failure of my / our abiding the relevant laws.

The name of my / our representatives is to enter the TPSODL Premises on my behalf.

Date:

**(Signature of the Business Associate
or his Authorized Representative)**

This Business Associate is / will be engaged in TPSODL.

**(Signature and seal of
Officer I/c of the Work)**

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Form X

Undertaking

I _____ hereby undertake that all the dues in respect of my employment with M/s _____ for the period of _____ to _____ have been settled and final payments including retrenchment benefit have been made to me in full.

(_____)

Date:

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Form XI

Undertaking

With reference to the contract job awarded by M/s TP Southern Odisha Distribution Limited to M/s _____ vide work order No. _____ dated _____

I _____ on behalf of

M/s _____ hereby undertake:

1. that the dues in respect of the workmen/ employee(s) engaged by us for the said contract, payable as per the provisions of relevant statute pertaining to
 - i. wages/ salary
 - ii. PF & ESI, Berhampur Labour Fund
 - iii. All other statutory obligation
 has been paid /settled in full and no amount/ compliance is due/ pending.
2. That in case any dispute / claim is raised by the concerned workers i.r.o. any dues / payments, M/s _____ will settle the same on its own and such liability will be borne by M/s _____
3. That M/s _____ hereby indemnify M/s TPSODL from any future liability i.r.o. any statutory obligation in respect of said contract.

Date:

(_____)

Authorized Signatory

For M/s _____

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FORM- VI A

Notice for Commencement /Completion of contract work

I/We, Sh. / M/s _____ (Name and Address of the Contractor) hereby intimate that the contract work _____ (name of work) in establishment of the _____ (name and address of the Principal Employer) for which License No. _____ dated _____ has been issued to me/us by the Licensing Officer _____ (name of the Headquarters), has been commenced / completed with effect from _____ date / on date.

Signature of Contractor

With Office Seal

The Inspector

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FORM XXIV

[See Rule 82(1)]

Return to be sent by the Contractor to the licensing Officer (in duplicate)

Half -Yearly Ending _____

1. Name and address of the Contractor
2. Name and address of the Establishment
3. Name and address of the Principal Employer
4. Duration of Contract: From _____ to _____
5. No. of days during the half year on which
 - (a) the establishment of the principal employer had worked
 - (b) the contractor's establishment had worked
6. Maximum No. of contract labour employed on any day during the half –year:

Men	Women	Children	Total

7.
 - (i) Daily hours of work and spread over
 - (ii)
 - (a) whether weekly holiday observed and on what day
 - (b) if so, whether it was paid for
 - (iii) No. of man – hours of overtime worked
8. No. of man days worked by

Men	Women	Children	Total

9. Amount of wages paid

Men	Women	Children	Total

10. Amount of deductions from wages, if any

Men	Women	Children	Total

Whether the following have been provided –

- (i) Canteen : _____
- (ii) Rest rooms : _____

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(iii) Drinking water : _____

(iv) Crèches : _____

(v) First Aid : _____

Signature of contractor

Place _____

Date _____

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ANNEXURE – H

UNDERTAKING FOR COMPETENCE OF WORKMEN

Name of Associate :

Tender No. :

Item :

With reference to the tender mentioned above, I/We _____,
 hereby undertake that the workmen/ employee(s) engaged by M/s
 _____ for the job against said tender shall be competent in all
 respect, commensurate to the nature of job.

Date:

 ()

Authorized Signatory

For M/s

Seal

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ANNEXURE-I

BUSINESS ASSOCIATE FEEDBACK FORM

With an objective to improve our internal processes and systems, and serve you better, we solicit your valuable feedback & suggestions. It is estimated that it will take about 10 minutes to complete this survey. We assure you that your feedback shall be kept confidential. Please send the duly filled feedback form in the "TPSODL addressed - attached envelop"

You are associated with us as

☐ OEMs
 ☐ Service Contractor
 ☐ Material Suppliers
 ☐ Material & Manpower Supplier

You are associated with us for

☐ Less than 1 year
 ☐ More than 1 year but less than 3 years
 ☐ More than 3 years

Your office is located at

☐ Berhampur
 ☐ Within 200 kms from Berhampur
 ☐ More than 200 kms from Berhampur

Your nearly turnover with TPSODL

☐ Less than 25 Lacs
 ☐ 25 Lacs to 1 Crore
 ☐ More than 1 Cr.

Additional information

Your Name	
Your Designation	
Your Organization	
Contact Nos.	
Email	

We once again thank you for your participation in this survey. Please spare 10 minutes to give your feedback on following pages (Section A to E)

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SECTION - A

(Please ✓ mark in the relevant box and give your remarks / suggestions / information for our improvement.).

S. No.	Parameters	1	2	3	4	5	Remarks/ Suggestion
		Do Not Agree	Slightly in Agreement	In Fair Agreement	Mostly in Agreement	Fully Agree	
1	You receive all relevant queries / tenders from us in timely manner.						
2	We provide you enough lead time to respond to our queries / tenders.						
3	We provide you adequate support (drawings, documents, clarifications, briefing etc.) to enable you meet our requirements.						
4	All following elements of our contract / purchase order are rational :						
4.1	Scope of Work						
4.2	Delivery / Execution Schedule						
4.3	Payment Terms						
4.4	Liquidated Damages						
4.5	Performance Guarantee						
5	Our purchase orders / contracts are simple, specific & easy to understand						
6	TPSODL demonstrate willingness to be flexible in administration of Contract / Purchase Order						
7	We provide timely responses / clarifications to your queries						
8	TPSODL representative you interact / coordinate with is adequately empowered to support you in meeting contractual obligations						
9	TPSODL provide you all necessary infrastructure support for timely and quality completion of work (including AMC)						
10	TPSODL Engineer-in-Charge timely certifies the jobs executed/ material supplied						

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S. No.	Parameters	1	2	3	4	5	Remarks/ Suggestion
		Do Not Agree	Slightly in Agreement	In Fair Agreement	Mostly in Agreement	Fully Agree	
11	TPSODL Engineer-in-Charge efficiently supervises the job execution for timely completion of job						
12	BIRD (Bill Inward Receipt Desk)* initiative has improved payment disbursement process (under development)						
13	Our approach for Inspection and Quality Assurance effective to expedite project completion?						
14	TPSODL never defaults on contractual terms						
15	In TPSODL Contracts closure is done within set time limit						
16	Our material receiving procedures are well defined and efficiently deployed to reduce mutual inconvenience						
17	Bank Guarantees are released in time bound manner						
18	Our processes related to payment / account settlement are effective.						
19	You get payments on time						
20	TPSODL Employees follow Ethical behavior						

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SECTION - B

(Please rate the following parameters on a scale of 1 to 5, where 1 - Minimum; 5 - Maximum)

SN	Parameters	1	2	3	4	5	Remarks/ Suggestion
1	How do you rate courtesy/ empathy/ attitude level and warmth of TPSODL employees you interact with from following team?						
1.1	Project Engineering						
1.2	Division / Sub-Division						
1.3	Projects/HOG						
1.4	Inspection & Quality Assurance						
1.5	Stores						
1.6	Metering & Billing						
1.7	Accounts / Finance						
1.8	Administration						
1.9	IT & Automation						
2	How would you rate TPSODL in comparison to your other clients in terms of fairness of treatment and transparency with its Business Associates?						
3	How would you rate TPSODL in comparison to your other clients in terms of processes and systems to manage partnership with its Business Associates						
4	How would you rate TPSODL in comparison to your other clients in terms of building long term & mutually relationship with its Business Associates						

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SECTION-C

Please ✓ mark in the relevant box and give your remarks / suggestions / information for our improvement.

SNo	Parameters	Certainly NO	Probably NO	Probably YES	Certainly YES	Remarks/ Suggestion
1	Based on your experience with TPSODL, would you like to continue your relationship with TPSODL?					
2	If someone asks you about TPSODL, would you talk "positively" about TPSODL?					
3	Would you refer TPSODL name to others in your community, fraternity and society as a professional & dynamic organization?					

SECTION - D

If we ask you to rate us on a scale of 1 to 10, how will you rate TPSODL, that truly represents your overall satisfaction with us (please tick appropriate box) -

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

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SECTION – E

Please ✓ mark in the relevant box and give your remarks / suggestions / information for our improvement.

Please spare your thoughts for TPSODL's improvement in particular areas of weaknesses, particularly relating to some great practices, attitudes that you have seen elsewhere in Indian and International Organizations, which you recommend TPSODL to adopt. Please give your valuable salient recommendations.

Please spare your thoughts for TPSODL's improvement in particular areas of major concerns for you. We also welcome your suggestions to adopt any best practices, attitudes that you have observed / experienced elsewhere in Indian/ International organization.

Recommendation	Please tick (✓) your top 5 expectations out of the following 10 points listed below -	
(Please list down improvement you expect from TPSODL)	<i>Timely payment</i>	
1	<i>Flexibility in Contracts/PO</i>	
	<i>Clarity in PO,s & Contracts</i>	
2	<i>Timely response to quarries</i>	
	<i>Timely certification of works executed</i>	
3	<i>Clarity in Specs, drawings, other docs etc.</i>	
	<i>Adequate information provided on website for tender notification, parties qualified etc.</i>	
4	<i>Timely receipt of material at site for execution</i>	
	<i>Performance Guarantee/EMD released in time</i>	
5	<i>Inspection & quality assurance support for timely job completion</i>	

We thank you for your time and courtesy!!

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ANNEXURE-J

ACCEPTANCE FORM FOR PARTICIPATION IN REVERSE AUCTION EVENT

(To be signed and stamped by the bidder prior to participation in the auction event)

In a bid to make our entire procurement process fair and transparent, TPSODL intends to use the reverse auctions through SAP-SRM tool 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. TPSODL 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. TPSODL will make every effort to make the bid process transparent. However, the award decision by TPSODL would be final and binding on the supplier.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of TPSODL, 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 TPSODL.
6. In case of intranet medium, TPSODL shall provide the infrastructure to bidders. Further, TPSODL 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 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 outrightly rejected by TPSODL.
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 TPSODL 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 the auction event shall be considered by TPSODL.
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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send payment information)

Name of the Authorized Signatory :

Contact Person's Name :

Official Correspondence Address :

We confirm that we will bear the charges, if any, levied by our bank for the credit of NEFT/RTGS amounts in our account. Any change in above furnished information shall be informed to TPSODL well in time at our own. Further, we kept TPSODL indemnified for any loss incurred due to wrong furnishing of above information.

Thanking you,

For _____

(Authorized Signatory)

(Signature with Rubber Stamp)

Certification from Bank:

We confirm that we are enabled for receiving NEFT/RTGS credits and we further confirm that the account number (specify Bank a/c no.) of (Please mention here name of the account holder), the signature of the authorized signatory and the MICR and IFSC Code of our branch mentioned above are correct.

This also is certified that the above information is correct as per Bank record

(Manager's/ Officers Signature under Bank Stamp)

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ANNEXURE-L

CONTRACTOR SAFETY MANAGEMENT SYSTEM

1. OBJECTIVE

The objective of the Contractor Safety Management System is to lay down clear guidelines for all Business Associates (including their associates, staff and agents) which would facilitate them to observe all statutory rules and regulations, comply with applicable standards of Central Electricity Authority (Measures relating to safety and electric supply) Regulations, 2010 & (safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011, TPSODL Safety Manual and Guidelines and thus, ensure creation of safe working environment for all stakeholders of our network.

2. SCOPE

All contracts (minor and major) will be subject to the provisions of this document.

Minor Contracts: Contracts which satisfy all the criteria listed under the head “Minor Contracts”.

Major Contracts: Contracts which satisfy any two or more criteria listed under the head “Major Contracts”

Criteria	Minor Contracts	Major Contracts
Value of Contract	< Rs. 1500000/- (less than Rs. Fifteen Lac)	>= Rs. 1500000/- (Equal or more than Rs. Fifteen Lac)
Period	Period less than 1 year	Any period
Working on energized electrical equipment	No	Yes
Working on height (above 1.8 Mtrs from ground)	No	Yes
Work involving construction activity	No	Yes
Working with hazardous goods or chemicals	No	Yes
Work involving danger to general public	No	Yes

Note: Exceptions for major and minor contract are – in house software development, supply of material or equipment but no direct or indirect installation of the same material, administration contracts (courier, water supply, printing, security, transport, etc.), minor civil work like plastering at ground level or flooring, etc. The facility management (housekeeping) contract will always be treated as a minor contract.

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3. INFORMATION REQUIRED AT TIME OF VENDOR REGISTRATION OR BEFORE COMMENCEMENT OF CONTRACT

- 3.1 Business Associate is required to fill the Safety Management System Questionnaire as per *annexure 1* and submit along with the vendor registration process / bid / tender document. The filled questionnaire will be scrutinized by Engineer In-charge / indenting group and recommend suitability of the BA with respect to safety requirements. The fulfilment of statutory requirements for vendor registration pertaining to labour laws etc. shall be done by BA Cell on being referred to it.
- 3.2 Business Associate is required to take suitable risk control measures mentioned against the identified Hazards and Risk document provided for all contracts as per *annexure 2*. The primary objective of this is to evaluate the understanding of the BA towards risk mitigation and employment of safe work procedures. BA is required to conduct the Hazard identification and Risk Assessment study as per the procedure and deploy more or other measures if deemed necessary.
- 3.3 Business Associate shall comply with **Statutory Requirements related to Safety and Occupational Health** and submit the "Safety Undertaking" as per *annexure 4*.

4. GENERAL SAFETY CONDITIONS REQUIRED TO BE FULFILLED BY BUSINESS ASSOCIATES

The requirements of the contractor safety management system applicable to the minor or major contracts related to various groups are as following –

- 4.1 Maintenance of Distribution Network – *Annexure 3.1*
- 4.2 Distribution Projects – *Annexure 3.2*
- 4.3 EHV Projects – *Annexure 3.3*
- 4.4 Maintenance of Sub transmission network – *Annexure 3.4*
- 4.5 Civil / Generation Projects – *Annexure 3.5*
- 4.6 Meter Management Group (MMG), Revenue Recovery Group (RRG), Energy Auditing Group, AMI, MRG, etc. – *Annexure 3.6*
- 4.7 Maintenance and Operation of Street Light. – *Annexure 3.7*

1. *Please note that hydra cranes used by any dept should be ACE Model No. FX 150 ACE SX 150, Escorts Model No. TRX 1550 or contemporary. Use of old generation hydra cranes like ACE 14XW or ACE 12 XW, etc are prohibited.*

(Details as per Annexure attached)

Note: For minor contracts, the BA shall assign the duties of Safety Representative to the Work Supervisor. Work Supervisor will deliver all duties and responsibilities of Safety Supervisor as detailed in this document.

The Business Associate (BA) having major contract will appointing Safety supervisor, engineer / manager for the TPSODL work. The BA shall make all necessary arrangements for getting their workforce safety trained and competency checked from the concerned official of TPSODL before deployment in the field. BA Cell shall recommend the suitability after competency checked by Engineer In-charge and SAFETY group (or his representative) of TPSODL. After getting the clearance from concerned official, BA cell and receiving temporary I-card issued by TPSODL, Business Associate shall commence the working.

Safety Representative of Business Associates will formally become the nodal point for safety concerns for TPSODL. **BA shall not frequently transfer or terminate the services of any of the safety representatives appointed for TPSODL work site. BA needs to ensure**

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that Safety representative is available at all points of time; failing which the work being carried out in the interim (period when Safety representative is not available) shall be treated as working under improper supervision and due penal provisions shall be initiated against the BA. BA will be required to provide all applicable infrastructure and power to ensure smooth working of the safety representative to maintain a sound safety management system. **In all contracts safety representative will not be assigned any other activity at site apart from the works related to safety management. The duties are detailed in clause 5.5 of this document.** TPSODL will be auditing the facilities provided to the BA's safety team time to time.

The Safety Representative of the BA shall be required to meet and follow the instructions of the Engineer In-charge and SAFETY Group of TPSODL. He shall be responsible for providing the MIS and/or any other relevant information, as and when desired, within the stipulated time frame as per the requirements of TPSODL. Any non-conformance to safety will lead to the negative marking or issue of safety violation challan/ tokens which shall affect the monthly evaluation and performance of BA.

All contracts where BA has to depute vehicle for their staff and equipment to move from one location to other, the BA shall ensure that vehicle complies all required statutory clearances and requirement as per The Motor Vehicle Act, 1988 as well as TPSODL Road Safety Policy and are in good & safe state of working.

5. QUALIFICATION AND EXPERIENCE OF THE SAFETY AND SITE PERSONNEL

Qualification and experience required for the safety and site personnel are as following:

5.1 Safety Supervisor: It is mandatory that educational qualification of safety supervisor be ITI (of relevant trade) / Diploma (Any branch of engineering) and he has a working experience on electrical system / relevant field of work at least 5 yrs for ITI and 3 years for Diploma holder. Having formal experience of the safety systems will be an added advantage

5.2 Safety Engineer: It is mandatory that educational qualification of safety engineer be at least Diploma (relevant branch) and he has working experience on electrical system of at least 3 yrs. Having the formal experience of the safety systems will be an added advantage.

5.3 Safety Manager: The educational qualification of safety manager should be graduate engineer with working experience on electrical system / network of at least 3 yrs. OR Diploma in Industrial Safety with working experience of 05 years including at least 02 years on electrical network.

However, clause 5.1, 5.2 and 5.3 are not applicable for minor contracts. In such cases, BA shall assign the duties of Safety Representative to the Work Supervisor. Work Supervisor will deliver required duties of Safety Representative (as per clause 5.5) in addition to other duties without diluting the importance of safety.

5.4 Site Skilled Personnel: For all responsibility related to site activities and operations, the BA shall employ only qualified and skilled persons and shall comply the provisions of section 19 & 29 of Southern Electricity Authority (Measures relating to safety and electric supply) Regulations, 2010. Persons holding valid approvals only by any Government approved agency or a competency assessment panel or a team set up by

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TPSODL shall be allowed to perform the High Risk / High Hazard activities (refer page 1). The skill / qualification required for the electrician and electrical supervisor are given in *annexure 5*. The contracts related to maintenance of Distribution Network, Distribution Projects, EHV Projects, maintenance of Sub-Transmission Network, MMG & EAG, maintenance and operation of streetlights, shall preferably have at least 20 per cent of ITI qualified electricians in the first year of the contract. This figure shall preferably be incremented by 15 per cent every subsequent year.

Note: For the competency assessment may please refer the work instructions. An employee shall have to necessarily undergo the competency assessment check once in every eighteen months.

5.5 Requirements from the Safety Representative(s) of the Business Associate:

- 5.5.1 Safety training of 2 hrs/employee/month and one day of safety induction training to all new employees joining the BA will be conducted by the BA as per Safety training modules of TPSODL.
- 5.5.2 Safety Talk / toolbox talk before start of shift to BA employees.
- 5.5.3 Ensuring the availability & proper usage of the standard safety equipment (PPE)
- 5.5.4 Periodic inspection of PPE to ensure their serviceability and maintaining the 10% buffer stock of standard PPEs.
- 5.5.5 Ensuring the adherence to standard operating procedures of TPSODL as mentioned in TPSODL Safety standard and O & M and concerned function's manual.
- 5.5.6 Safety inspections / audits as per the process of TPSODL
- 5.5.7 Working in close coordination SAFETY Group of TPSODL.
- 5.5.8 Reporting of unsafe acts, unsafe conditions, near miss, incident or accident to Engineer In-Charge and SAFETY Group of TPSODL immediately after its occurrence.
- 5.5.9 Regular HIRA at site and comply the control measures as stated in the detailed HIRA as per the *annexure 2*. Also, deployment of JSA based checklist shall be ensured.
- 5.5.10 Ensuring compliance with safety and other laws as may be applicable and providing for safety assurance.

5.6 Training and Syllabus: The BA shall not deploy any person at workplace / site or send newly recruited personnel directly to concerned official for competency assessment without Safety Induction Training.

5.6.1 All new BA employees have to necessarily undergo one and half days Safety training and Competency assessment at training centre of BA cell. This training will be conducted once in a week. After the completion of Safety training & Competency assessment I-card will be issued to all competent BA employees

5.6.2 BA is expected to initially train and judge the capability of the workman at his own end before further recommending the workmen for Competency assessment. If any BA workman sent for competency assessment. In case any BA workman fails in the Competency test at concerned official, it will be deemed that BA has not imparted sufficient training at his end and actual cost of training ₹ 7500/ BA employee/ failed attempt will be recovered.

5.6.3 The workers who have imparted Safety Training and issued I-Cards of TPSODL, are not deployed at TPSODL worksites/ voluntarily left the job by workers/ used somewhere else other than TPSODL by the BA, in that case Management reserves the rights to intervene and recover the actual cost of training i.e. ₹ 7500/BA employee. (*Exempted for attrition rate of BA workers less than or equal to 10% of total workforce deployed at TPSODL*)

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5.7 It is desired that Safety representative of the BA to impart the general safety training to each employee of duration 2 hrs per month. The training will be organized at BA level and the record to be sent to engineer in-charge and SAFETY group of TPSODL every month. Please refer schedule and syllabus in *annexure 6*.

List of Personal Protective Equipment (PPE) and Maintenance schedule: BA shall commence the project or any work only when the required PPE are made available to the team of employees involved in the work. Each PPE of BA shall be checked / inspected by the safety representative / supervisor at zone before the work start or as prescribed in the list. Safety representative shall regularly check the healthiness of each PPE allocated to lineman. Suitable record shall be maintained at zone. Defective PPE shall be immediately replaced or within 24 hours by the BA. In no case linemen or any other official of BA may be allowed to work with defective PPE. It is preferred that BA ensures minimum stock of each PPE at zone for immediate replacement with defective one. The PPE shall be IS / BS / CE marked and exactly as per the standard or specification mentioned in the *annexure 7*. Working without PPE / non-standard PPE shall be treated as safety violation and penalty as stated in section 6.0 of this document. If TPSODL finds that BA has not provided the adequate / appropriate PPE to their staff, TPSODL reserves the rights to stop the work and call the BA to provide appropriate PPEs at the risk. If the BA fails to provide the required PPEs at the risk then the same shall be provided by TPSODL at the actual cost of the PPE. The amount shall be charged to BA and same shall be first recovered from the current bill of BA or any future payment to be made to BA. In the event of any balance amount still left for recovery, the same shall be adjusted against retention amount or by invoking bank guarantee submitted by BA.

5.8 Safety Audit / Inspection & HIRA: The BA shall get the required safety inspection / audit conducted by his technical team comprising of safety representative as per the *annexure 8*. The safety representative will be required to conduct the HIRA (Hazard Identification and Risk Assessment) *as per annexure 2* of the process and work undertaken at least two times in a year or every time if a new process / activity / machine is introduced or whenever an accident take place. The risk identified to be addressed suitably with –

- Engineering Control
- Management Control, and
- Personal Protective Equipment.

The safety representative of BA shall inform and educate for the identified risk and hazard control methods to employees, supervisor and engineer as well as the engineer in-charge and SAFETY group of TPSODL.

5.9 Safety Performance and Safety MIS: The BA shall maintain good practice of safety all through the contract duration. Safety shall always be of paramount importance during the contract period. Safety performance will be monitored on yearly basis throughout the period and no relaxation will be given for bad performance. BA with good track record and excellent performance will be rewarded suitably as per clause 6.0 of this document. The BA has to provide monthly "Performance Report – Safety" to engineer in-charge and SAFETY group TPSODL this shall be part of monthly bill along with training details. Performa of the report is enclosed as *annexure 9*.

5.10 Pre – Employment Medical Check-up and Fitness of employees engaged for the critical works: The BA shall submit the health fitness certificate for all those workers involved in climbing the pole or working at height for following diseases:

5.10.2 Epilepsy

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- 5.10.3 Colour blindness
- 5.10.4 Deafness
- 5.10.5 Vertigo & height phobia

Every year BA will give an undertaking stating that all the employees are fit to work and have not developed aforesaid diseases. The Record of such medical check-ups shall be submitted to BA Cell before issue of temporary identity card. The records shall be maintained at BA Cell. All such medical check-ups shall be repeated once in a year for all workers involved in climbing the pole or working on electrical network.

6. REWARD AND PUNITIVE MEASURES

6.1 To support the enforcement of good SHE & DM practices by the Business Associate and to eliminate repeated or continuing safety violations, use of appropriate reward and punitive measures shall be made. Each unsafe act or violation of the safety guidelines as described in the Safety Manual of the TPSODL will be audit criteria of this system. Broadly the measures identified are following:

- 6.1.1 Working without PPE/ Safety Gadgets
- 6.1.2 Working without proper tools and tackles, barricading, Poor condition of Crane / Hydra / Vehicle, using without certification / Licence, Incompetent driver/ Helper
- 6.1.3 Working without creation of effective safety zone
- 6.1.4 Improper Supervision at worksite, Lineman/ Supervisor working without competency
- 6.1.5 Working without adherence to PTW process or authorization/ not adherence to SOPs / W.I. of TPSODL.
- 6.1.6 Improper Working at height equal to or above 1.8 mtrs without taking proper fall protection measures/ Poor condition of Ladder

6.2 Measures of Reward and Punitive Measures

The Engineer In-Charge, NSO, SC, ASOs, CSI / SIs and SHE &DM group will conduct the surprise audits of the work / project and if any non-conformance is found the same will be booked and entered in the format "Safety Violation Record" *annexure 10*. The flow of the information is given below:

Safety Violation Escalation & Monitoring process	
Action	Responsibility
Safety Violation form has been filled and counter foil sent to SAFETY team for information. The main form is to be given to BA supervisor / Engineer in-charge. <i>(Automatically generated if Site audit done through Mobile App.)</i>	Engineer In-charge/ NSO / SC / SAFETY Group /CSI/ ASO/ Any authorised TPSODL official.
↓	
Entry of the violation in the master record and sending the information to concerned Manager, HoG, HoD, Head and Chief (O &S). <i>(Automatically generated if Site audit done through Mobile App.)</i>	SAFETY Group
↓	
Forwarding the information Centralized Account Payable (CAPS) for amount deduction from the current bill of the BA,	Engineer In-charge

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Once the BA reaches the “BLACK” (color – “5”) category, i.e. highest level of safety violation, “Termination” notice to BA will be issued from the office of the Head of Department (equivalent to GM/ Sr. GM level) and further, *if required*, continuation / extension of contract will only be initiated by Functional Chief / Head of the department (equivalent to Sr. GM / Chief level) and approved by CEO & MD. Till the extension, the contract will remain suspended.

TPSODL encourages the reportage of the safety violation during the contract work by BA. Any TPSODL employee can register a safety violation against the BA in the “Safety Violation Form” *annexure 10*. Initially the observer has to fill the form and handover the counterfoil (lower portion) of the document to the supervisor of the BA, inform the site engineer of TPSODL and send the top portion of the Safety Violation Form to SAFETY group for the further necessary action against the BA. **The cumulative nos. of Safety Violations pertaining to any particular BA shall be calculated on yearly basis.**

Safety violations resulting in incident / accident will be treated as per gravity of the injury / fatality and its impact as well as type i.e. minor or Major. Consequences of incident / accident are shown in the matrix (figure 6.3(2) for major and 6.3(3) for minor) below. In case of any accident, findings and recommendations of Accident Enquiry Committee will be final and binding and will supersede the arbitration clause of GCC.

Consequence Of an Incident / Accident (In case of <u>MAJOR</u> contract)		Incident / Accident				Action Required
Sl. No	Type of the injury	1st	2nd	3rd	4th	
1	Slight injury (First Aid Case)	F (Strengthening of process through continuous improvement in the work procedure)				Take risk reduction measures
2	Minor injury (No or Hospitalization less then 48 Hrs)	F	G	G	H	
3	Major injury (Bone injury or burn or Hospitalization more then 48 Hrs)	G	G	H	I	
4	Single fatality	J	K			Intolerable
5	Multiple fatalities (Two or more fatalities during one event)	K				
Legend	Action to be taken	Responsibility		Penalty (in Rs.)	The number of violations are to be calculated cumulatively over the contract period and not on monthly basis.	
F	Memo to BA and levy of penalty	Engineer Incharge		5,000/-		
G	Memo to BA and levy of penalty	Head of Group		20,000/-		
H	Memo to BA and levy of penalty	Head of Group		50,000/-		
I	Memo to BA and levy of penalty	Head of Department		2,00,000/-		
J	Memo to BA and levy of penalty	Head of Department		5,00,000/-		
K	Memo to BA, levy of penalty, termination of contract and black listing of BA	Functional Head		10,00,000/-		
Figure 6.3 (2) - Penalty Matrix for Incident / Accident in Major Contracts						

Figure 6.3 (2) - Penalty Matrix for Incident / Accident in Major Contracts

(For example: In major contracts, if there is first incidence of major injury say bone injury (Cat. 3) where worker was hospitalized for more than 48 hrs then a penalty of amount Rs.20000/- will be deducted from the current bill produced for the payment. This penalty will be similar for first two incidents. However, it will increment to next higher category i.e. Rs. 50,000/- on subsequent incidents as per the above matrix)

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Consequence Of an Incident / Accident (In case of <u>MINOR</u> contract)		Incident / Accident				Action Required
Sl. No	Type of the injury	1st	2nd	3rd	4th	
1	Slight injury (First Aid Case)	L (Strengthening of process through continuous improvement in the work procedure)				Take risk reduction measures
2	Minor injury (No or Hospitalization less then 48 Hrs)	L	M	M	N	
3	Major injury (Bone injury or burn or Hospitalization more then 48 Hrs)	M	M	N	O	
4	Single fatality	P	Q			Intolerable
5	Multiple fatalities (Two or more fatalities during one event)	Q				
Legend	Action to be taken	Responsibility		Penalty (in Rs.)		The number of violations are to be calculated cumulatively over the contract period and not on monthly basis.
L	Memo to BA and levy of penalty	Engineer Incharge		5,000/-		
M	Memo to BA and levy of penalty	Engineer Incharge		10,000/-		
N	Memo to BA and levy of penalty	Head of Group		25,000/-		
O	Memo to BA and levy of penalty	Head of Department		1,00,000/-		
P	Memo to BA and levy of penalty	Head of Department		3,00,000/-		
Q	Memo to BA, levy of penalty, termination of contract and black listing of the BA	Functional Head		5,00,000/-		
Figure 6.3 (3) - Penalty Matrix for Incident / Accident in Minor Contracts						

(For example: In minor contracts, if a worker meets with a non-fatal accident say bone injury (Cat. 3) where he was hospitalized for more than 48 hrs then a penalty of amount Rs. 10,000/-, will be charged from the current bill produced for the payment. This penalty will be similar for first two incidents. However, it will increment to next higher category i.e. Rs. 25,000/- on subsequent incidents as per the above matrix.)

In case of single or multiple fatalities described under legends J&K of 6.3(2) and P&Q of 6.3(3), the concerned BA may be debarred from extension of contract or participate in new contract. In such event the approval of Chief (O & S) will be necessary for extension or award of new contract to concerned BA.

6.3.2 COMPENSATION FOR BA PERSONNEL

In the event of any untoward incident/ accident, the Business Associate shall ensure prompt medical assistance such as treatment, sickness benefit, etc. is provided to the victim(s) as per the Employees' Compensation Act, 1923 or Employees' State Insurance Act, 1948, as applicable. Also, the BA will be required to take adequate measures for compensating the victim(s) or his/her/their kin as follows:

Group Personal Accident (GPA) policy coverage of ₹ 15 Lacs to be taken by the respective BAs.

i. It is mandatorily required to take the GPA policy coverage of ₹ 15 Lacs by the BA for his employees from a reputed insurance agency.

ii. TPSODL HR department will be the overall process owner and BA shall be required to coordinate with TPSODL HR department for policy implementation immediately post receipt of LOI / Work Order.

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I. For Death or Permanent / Total Disablement

The BA shall take an insurance coverage of at least Rs. 15 lakhs for each engaged employee, to cover any incidence of Death or Permanent / Total Disablement (Permanent/Total Disability shall be considered as defined under Employees' Compensation Act, 1923). In the event of any such unfortunate incident, the BA would ensure that adequate compensation is paid immediately to the family of the victim(s) from his own resources. This compensation shall be covered under the insurance policy subscribed by the BA mentioned earlier and the arrangement should be such that it would get reimbursed to the BA by the insurance agency subsequently.

II. For Permanent Partial Disablement and Temporary Total Disablement

The compensation in this case will be as per provisions of the Employees' Compensation Act, 1923 or Employees' State Insurance Act, 1948, as applicable.

Accordingly, the BA shall obtain a suitable Insurance Policy on award of Contract and submit documentary evidence of the policy to the BA Cell before commencement of work. The BA shall ensure that the Insurance policy is active at all times and all employees are covered in all respects till the conclusion of contract period or till working with TPSODL. The BA shall submit a copy of the policy after periodic renewals to the BA Cell.

However, on occurrence of such unfortunate incident, if it is found that the victim(s) is/are not covered under any insurance policy, the BA shall be liable to pay the entire sum of Rs. 15 lakhs from his own resources.

Further, in case of an accident resulting in Death or Permanent / Total Disablement while on duty, the appointed BA Nodal Officer will ensure that the BA complies with all statutory provisions and benefits i.e. PF, Compensation, Gratuity etc., and that all these are made available to the employees' nominee(s) as per the stipulated timelines.

6.3.3 TPSODL rewards the BA with good track record of safety management. It is proposed that BA complying with Contractors Safety Management, Safety Manual and Safety process will be rewarded suitably as per the procedure, rule and regulations of the TPSODL. In any case major accident is reported during an assessment period BA will not be eligible for this reward scheme. Assessment of contracts will be once in year. Generally, the assessment cycle is calendar year and guidelines will be declared time to time.

Abbreviations Used in the Document

TPSODL	TP Southern Odisha Distribution Limited
BA	Business Associate
HIRA	Hazard Identification & Risk Assessment
JSA	Job Safety Analysis
EHV	Extra High Voltage
SAFETY	Safety, Occupation Health, Environment & Disaster

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	Management
MMG	Meter Management Group
EAG	Energy Audit Group
PPE	Personal Protective Equipment
SOP	Standard Operating Procedures
CSI/SI	Circle Safety In-charge / Safety In-charge
ASO	Area Safety Officer
NSO	Nodal Safety Officer
SC	Safety Coordinator
HoG / HoD	Head of Group / Head of Department
AGM / GM / VP	Assistant General Manager / General Manager / Vice President
CFO / Chief (O & S)/ CEO & MD	Chief Finance Officer / Chief (Operating & Safety) / Chief Executive Officer & Managing Director
COS	Corporate Operation Services
CAP	Centralized Account Payable System
PTW	Permit To Work
GCC	General Conditions of Contract.

- END -

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Annexure 1 (Refer Para 3.1)

Business Associate Safety Management System Questionnaire

Certification				
The information provided in this questionnaire is a summary of the company's occupational health and safety management system.				
Company Name:				
Turnover and experience:		Name of top officer:		
Date:		Position		
Contract Details				
Contract Name			Contract Number:	
Business Associates Safety Management System Questionnaire	Marks	Yes	No	Score achieved
<i>Safety Policy and Management</i>				
- Is there a written company Safety policy?	1			
- If yes provide a copy of the policy, if No please refer Note 1.				
- Does the company have an Safety Management system	1			
- If yes provide details, if No please refer Note 1.				
- Is there a company Safety Management System manual or plan?	2			
- If yes provide a copy of the content page(s), if No please refer Note 1.				
- Are Safety and occupational health responsibilities clearly identified for all levels of Management and staff?	2			
- If yes provide details, if No please refer Note 1.				
<i>Safe Work Practices and Procedures</i>				
- Has the company prepared safe operating procedures or specific safety instructions relevant to its operations and relevant work as per contract?	1			
- If yes provide a summary listing of procedures or instructions, if No please refer Note 2.				

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Certification				
- Comments				
- Is there a register of injury or accident? - If yes provide a copy (format)	1			
- Is there a documented incident or accident investigation procedure? - If yes provide a copy of a standard incident report form, if No please refer Note 2. - Comments	1			
Safety Training				
- Describe how occupational health and safety training is conducted in your company If No please refer Note 1.	2			
- Is a record maintained of all training and induction programs undertaken for employees in your company? - If yes provide examples of safety training records, if No please refer Note 2.	1			
- Are regular safety inspections / audits are undertaken at worksites? -If yes provide details (formats), if No please refer Note 3.	1			
- Is there a procedure by which employees can report hazards at workplaces? - If yes provide details if No please refer Note 1.	1			
Safety Monitoring				
- Is there an officer / supervisor responsible for monitoring workplace / worksite safety?	1			

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Certification				
- If yes provide details				
<i>Safety Performance Monitoring</i>				
- Are employees regularly provided with information on company health and safety performance?	1			
- If yes provide details				
- Has the company ever been convicted of an occupational health and safety offence?	NO Marks (Negative mark ONE for each case)			
- If yes provide details				
- Has there been any major accident of employee at TPSODL site in past	NO Marks (Negative mark ONE for each case)			
- Has there been any fatal accident of employee at TPSODL site in past. - (Note: Bid evaluation committee has to take cognizance of the incident and shall evaluate the bid only after formal approval of competent authority i.e. CTO. - In case of yes please refer Note 4.	NO Mark (Negative mark FIVE for each case)			
Minimum of 75% marks is required for qualification.		Total Marks achieved		
<i>Company Reference</i>				
1. Name of company 2. Name of company				

Note

1: If company does not have formal procedure on Safety Management System than vendor may submit proposed Safety road map along with safety action plan and brief safety policy on his letter head signed by head of the organization.

2: The vendor may submit the same in the Safety Action Plan.

3: The vendor may utilize the same format of TPSODL or on request SAFETY group will assist the vendor in developing the audit system. For other points also vendor may take the assistance of SAFETY group for development of Safety management system.

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4: The vendor may submit the Safety Improvement Plan and Safety Action Plan for his employees based on following points.

- i. Action plan for enhancing safety awareness*
- ii. Action plan for safety training of employee*
- iii. Action plan for increasing safety audit in field*
- iv. Action plan for provision and utilization of safety PPE.*
- v. Action plan for fatality reduction.*
- vi. Action plan for enhanced supervision at site*
- vii. Action plan for making employee more responsible and accountable for safety.*
- viii. Action plan for availability and utilization of all required tool and equipment.*
- ix. Safety Improvement done in last two years, specially highlighting those which have been taken after the fatal accident along with results.*
- x. Safety initiatives planed or started recently.*
- xi. Any other point.*

Based on above points and documentary evidences vendor will be required to submit a detailed report in support of his bid. The bid evaluation committee and competent authority will scrutinize the facts and the evidence submitted. If found satisfactory competent authority i.e. CTO may accord his approval for bid opening otherwise his tender shall be disqualified.

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Annexure 2 (Refer Para 3.2 and 5.8)

Risk Assessment Form

Business Associate:
Scope of the work:
BA's Representative:
Telephone:
Signature:
Date:

Specific Task/Activity	Potential Hazards/Consequences	Class of Risk	Control Measures
Working at Height	Fall from height	2	<ol style="list-style-type: none"> 1. Mandatory usage of JSA checklist prior to start of work 2. Use appropriate ladder 3. Use full body safety harness having double lanyard. 4. Use Electrical Safety Shoes if working on electrical network otherwise use safety shoes. 5. Use Safety helmet. 6. Use PPE as per the annexure 7 of this CSM document 7. Refer Work instruction related to Working at Height for other details 8. Use of metal scaffold to be ensured in height work (cup lock type) 9. Deploy competent workforce who are medically fit

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Specific Task/Activity	Potential Hazards/Consequences	Class of Risk	Control Measures
Working on electrical equipment / network	Electric flash / electrocution	3	<ol style="list-style-type: none"> 1. Mandatory usage of JSA checklist prior to start of work 2. Use Electrical Safety Shoes while working on electrical network. 3. Use Electrical Safety gloves of appropriate voltage rating. 4. Use face shield / visor attached with helmet. 5. Use Safety helmet. 6. Use PPE as per the annexure 7 of this CSM document 7. Mandatory usage of Insulated tools & tackles on electrical system 8. Mandatory compliance for Lock Out & Tag out system. Refer Work instruction related to Working on electrical equipment / network for other details
Excavation / Civil work	Collapse of soil, fall in excavated pit leading to Injury	2	<ol style="list-style-type: none"> 1. Use safety shoes. 2. Use Safety helmet. 3. Use PPE as per the annexure 7 of this CSM document 4. Hard Barricading of the worksite. 5. Refer Work instruction related to excavation / civil work for other details
Material lifting & Mechanical Erection work	Fall of material/object, Topple of crane,	2	<ol style="list-style-type: none"> 1. Mandatory compliance of crane checklist 2. Visual condition check of lifting tools and tackles such as wire rope sling, belt sling, chain, pulley block, D-shackles, etc. shall be ensured. 3. The operator's physical fitness and alertness should be judged by sup. / EIC. 4. Use PPE as per the annexure 7 of this CSM document 5. Refer Work instruction related to Material lifting & Mechanical Erection work
Road Safety	Road Accidents	3	<ol style="list-style-type: none"> 1. Mandatory compliance of TPSODL Road Safety policy

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Specific Task/Activity	Potential Hazards/Consequences	Class of Risk	Control Measures
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Note: This information for the general indication purpose. The detailed risk assessment shall be conducted before start of the work by the authorized representative of the BA. The report of same shall be submitted to engineer in-charge along with annexure 4 of the CSM document.

Guidelines for filling the Risk Assessment Form

- *Specific Task/Activity* - The documentation of each major task associated with the contract.
- *Potential Hazards* - The identification of hazards associated with each activity or task to be carried out.
- *Class of Risk* - Each hazard should be evaluated as a level of risk, described as Risk Class 1, 2 or 3 defined above.
- *Control Measure* - The identification and documentation of actions required to eliminate or reduce the hazards that could lead to accident or injury.

Hazard / Risks shall be classified according to the following schedule:

- Class 1: Potential to cause injury treatable with first aid
- Class 2: Potential to cause death or permanent injury
- Class 3: Potential to cause more than one or more lost time injuries.

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Annexure 3.1 (Refer Para 4.0)

General Safety Conditions for the Maintenance of Distribution Network Contracts:

A BA awarded a contract (O&M) work of maintenance of distribution network will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPSODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPSODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPSODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPSODL approved list in *annexure 7*.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPSODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPSODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPSODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system in a district. In case the BA has been awarded work in more than one district, then the following safety structure will be adopted.



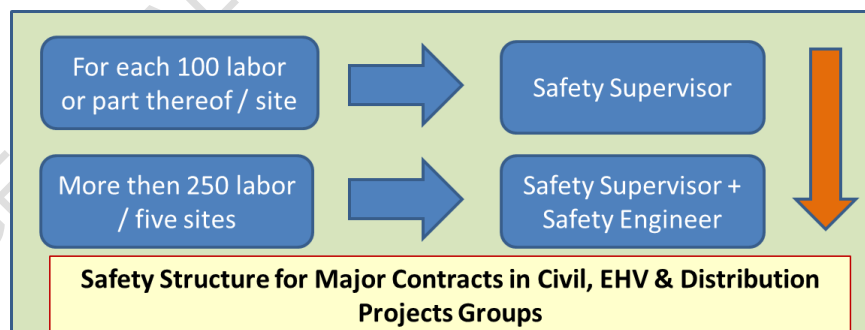
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Annexure 3.2 (Refer Para 4.0)

General Safety Conditions for the Distribution Projects Major Contracts:

A BA awarded a major contract work of TS&P in area of a circle will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1.
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPSODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPSODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPSODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPSODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPSODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPSODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPSODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system in the area. In case the BA has been awarded work in more than one circle, then the following safety structure will be adopted.



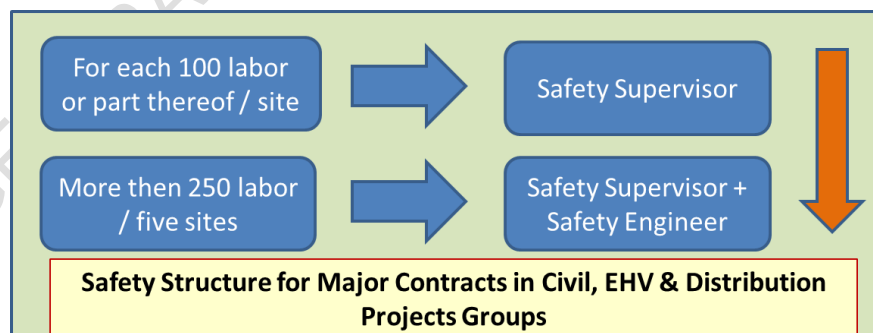
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Annexure 3.3 (Refer Para 4.0)

General Safety Conditions for the major EHV Projects Contracts:

A BA awarded a major contract work of EHV projects will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPSODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPSODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPSODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPSODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPSODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPSODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPSODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system in the area. In case the BA has been awarded work in more than one circle, then the following safety structure will be adopted.
- BA shall refer Construction Safety Manual in TPSODL Safety Manual for details.



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Annexure 3.4 (Refer Para 4.0)

General Safety Conditions for the Maintenance of Sub – Transmission Network Contracts:

A BA awarded a major contract work of maintenance of sub – transmission network in area of a power system will be required to fulfil the following conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPSODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPSODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPSODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPSODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPSODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPSODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPSODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Coordinator for managing a complete safety management system in the area. In case the BA has been awarded work in more than one area power system, then the following safety structure will be adopted.



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Annexure 3.5 (Refer Para 4.0)

General Safety Conditions for the major contract work in Civil / Generation Projects:

A BA awarded a major contract work of / in civil or Generation project will be required to fulfil the following safety conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like: applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPSODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPSODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPSODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPSODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPSODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPSODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPSODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor (for workforce up to 100 at site) / a safety engineer (for workforce up to 250 at site) / safety manager (for more than two safety engineers) for managing a complete safety management system at the project site. In case the BA has been awarded more than one major contracts, then the following safety structure will be adopted.
- BA shall refer Construction Safety Manual in TPSODL Safety Manual for details.



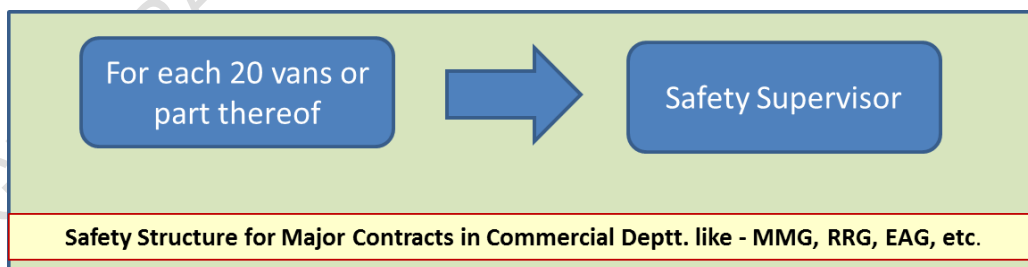
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Annexure 3.6 (Refer Para 4.0)

General Safety Conditions for the major contract work in Commercial Department like - MMG, RRG, EAG, etc.:

A BA awarded a major contract work in meter management group & energy auditing group will be required to fulfil the following safety conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPSODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPSODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPSODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment (PPE) as per the TPSODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPSODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPSODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPSODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- BA shall ensure to depute a Safety Supervisor for managing a complete safety management system for the work as per the following safety structure.
- The BA for the RRG work shall depute one Safety supervisor.



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Annexure 3.7 (Refer Para 4.0)

General Safety Conditions for the major contract work in O&M of street light group:

A BA awarded a major contract work in operation and maintenance of street light group will be required to fulfil the following safety conditions:

- BA shall provide Safety Policy and safety objectives of their company.
- BA shall comply with all statutory requirements like applicable acts, regulations, codes of practice, OHSAS Standards, etc.
- BA shall provide the filled safety management questionnaire as per Annexure 1
- BA shall conduct a job risk assessment and provide information as per Annexure 2
- BA shall abide by Safety manuals, guidelines of TPSODL.
- BA shall provide its organisation structure & responsibilities in terms of Safety Management to TPSODL.
- BA shall document the work practices and procedures in terms of Safety Management.
- BA shall ensure safety training and induction program for the employees
- BA shall conduct safety audits & inspections as per TPSODL procedures provided by SAFETY group.
- BA shall provide and ensure the proper usage of the safety equipment PPE as per the TPSODL approved list in annexure 7.
- BA shall ensure periodic inspection of PPE to ensure its serviceability as per the specification given by TPSODL.
- BA shall ensure the adherence to standard operating procedures or guidelines laid down by TPSODL.
- BA shall ensure reporting of any unsafe act, unsafe conditions, near miss, incident or accident to engineer in-charge and SAFETY team of TPSODL.
- BA shall provide safety performance and Safety MIS (*annexure 9*) to engineer in-charge and SAFETY group periodically. Based on any non-confirmation to the safety procedures and guidelines, BA is liable to be negatively marked for his performance and suitable penalty will be imposed.
- Each BA shall ensure to depute a Safety Supervisor for managing a complete safety management system for the work awarded as per the below structure.



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Annexure 4 (Refer Para 3.3)

Safety Undertaking by way of Affidavit

I _____ s/o _____ R/o _____ (AUTHORIZED REPRESENTATIVE/PARTNER/DIRECTOR/PROPRIETOR) of M/S _____ (name of company/firm) having its office at (Complete address of Company), authorized vide power of attorney dated -----/Board resolution dated----/letter of authority dated----, hereinafter referred to as **Contractor [or Business Associate (BA)]** which expression shall, unless it be repugnant to or inconsistent with the meaning or context thereof, be deemed to include its heirs, executors, administrators, and assigns do hereby affirm and undertake as under :

1. The present undertaking shall remain in force from the date of execution of contract awarded by TPSODL and shall be valid till the date of termination of the said contract by either parties. The undertaking is binding on me (contractor) as well as my sub-contractor and its employees, representatives etc.
2. That I(the contractor) will be responsible and liable to comply and abide by all the safety rules, instructions and regulations as may be specified and laid down by The TP Southern Odisha Distribution Limited (TPSODL) so as enable TPSODL to achieve its goal of Zero On site incidences.
3. That the Contractor shall be fully responsible for ensuring occupational health and safety of its employees, representatives, agents as well as of its subcontractor's employees, at all times during the discharge of their respective obligations under the contract including any methods adopted for performance of their tasks / work.
4. That Contractor shall ensure ,at its own expense to arrange for and procure, implement all requisite accident prevention tools, first aid boxes, personal protective equipment, fire extinguisher, safety training, Material Safety Data Sheet, pre-employment medical test, etc. for operations & activities including as & when so specified by TPSODL specifically. , failing which TPSODL shall be entitled, but not obliged, to provide the same and recover the actual cost thereof from the Contractor's payments.
5. That the Contractor shall engage adequate and competent Safety – Supervisor / Engineer / Manager / Skilled persons at site as per the Para 5 (Qualification and experience of safety personnel) and Annexure 3 of Contract Safety Management.
6. That the Contractor shall engage the competent Site – Supervisor with each group of workers for safe and correct workmanship, proper co-ordination of material and site work as per contract.

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7. That the Contractor shall immediately replace supervisor in case it is found to be not up to the level of skill and experience required as in skill and experience required in *annexure 5* of this document, but any such replacement shall be only with the prior concurrence of TPSODL .
8. That the Contractor and its subcontractors shall abide by all the safety guidelines as per Safety Manual, Contract Safety Management and other guidelines issued from time to time by TPSODL during the contract period.
9. That in case the Contractor and/or any of its Subcontractor fail to ensure the compliance as required in terms of this undertaking the Contractor shall keep and hold TPSODL / its directors / officers / employees indemnified against any / all losses / damage / expense / liability / fines / compensation / claims / action / prosecutions or the like which might be suffered by TPSODL or to which TPSODL might get exposed to as a result of any breach /wilful negligence /deliberate default on the part of the Contractor /Subcontractor in complying with the same. Contractor shall also furnish any press release, clarification etc. if sought by TPSODL for any near miss or safety violations, accidents, which are attributable to fault of Contractor.

DEPONENT VERIFICATION

Verified at Berhampur on this Day of _____ 20__ that the contents of the above affidavit are true and correct and nothing material has been concealed therefrom

DEPONENT

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Annexure 5 (Refer Para 5.4)

SKILL / QUALIFICATION REQUIRED FOR ELECTRICIAN AND ELECTRICAL SUPERVISOR

Skill / Qualifications Required for Electrician (*Certificate of Competency Class-II*):

1. Formal education in ITI – Wireman/ Electrician trade.

OR

2. Working experience of minimum three years of practical wiring.

OR

3. Have completed three years apprenticeship course through Apprenticeship Advisor, Govt. of Odisha / other state Govt. in the trade of Lineman / Wireman / Electrician.
4. A candidate must have attained the age of Eighteen years.

Skill / Qualifications Required for Electrical Supervisor (*Certificate of Competency Class-I*):

1. Have at least five years' experience of practical wiring after passing the certificate of competency class-II i.e. electrician.

OR

2. Recognized Degree or Diploma or equivalent qualification in Electrical Engineering from any Technical institute / College or University recognized by the Board.

AND

Must have completed the training/job in rectifying the common defects in electrical line and power installation for a period of one and three years after passing Degree or Diploma respectively

OR

3. Possessing the valid certificate of certificate of competency class – 1 (Electrical Supervisor)

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Annexure 6 (Refer Para 5.6)

Training Module for BAs Worker & Supervisor

Training for BA Supervisor

Duration – 02 Hrs / Month

Methodology: Lecture and Practical Demonstration of Safety Zone Creation

Session: 1

Topic: Electrical Safety Aspects

Sub Topics:

1. Learning specifics of HT & LT Network of zone
2. Major type of HT / LT / service lines / street light maintenance works
3. Understanding the need of Safety
4. Understanding the safe process of maintenance:
 - Planning of the maintenance job
 - Availability of men, material & machine, PPEs, Safety gear and approved PTW
 - Briefing of the job by the supervisor of the TPSODL
 - Identification of Risks associated with the maintenance work and planning for controlling measures by TPSODL supervisor
 - Creation of safety zone by TPSODL supervisor and satisfying that the network is dead – Use of Neon Tester, Shorting Chain and Safety Tagging
 - Start of the work – Right person for the right job
 - Alert supervision
 - Completion of the job – Check points
 - Energization of network
 - Actions to be taken in case of some accident

Session: 2

Topic: Use of Electrical Testing Equipment

Methodology: Lecture and Practical Demonstration

Sub Topics:

1. Meggar, Hi Pot, Clamp On Meter, Neon Tester, Discharge Rod, Line tester etc.

Session: 3

Topic: Awareness of Electrical Safety Aspects

- A. Understanding the need of this Training and Safety
- B. Learning specifics of HT & LT Network
- C. Major type of work to be carried out in zones
- D. Switching Operations (Do's & Don'ts) including Street Light Switching
- E. Working on Height (*practical demo also*)
- F. Understanding the Safe Process of Maintenance / Working:
 - Planning of the job
 - Availability of men, material & machine, PPEs, Safety gear and approved PTW
 - Briefing of the job by the supervisor
 - Permit to Work
 - Safety Tagging and Lock Out Tag out

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- Identification of Risks associated with the work to be carried out and planning for controlling measures by proper supervision
- Concept of "**Safety Zone**"
- Identification and use of Neon Tester, Shorting Chain, Clamp on Meter, Hi Pot, Meggar etc.
- Completion of the job – Check points
- Accident Theory & Incident Reporting
- Actions to be taken in case of some accident

Session: 4

Topic: Identification, Demonstration and Usages of Tools, PPEs and other Safety Gears and demonstration of working on HT pole

Session: 5

Topic: Practical demonstration of Safety Zone creation

FREQUENCY

Regular Safety Training Program

- It will be conducted for all field & supervisor staff of BA in such a manner that all BA Personnel attend at least two hours safety training during every month.

One Day Induction Safety Training Programs:

- This training will be for the new BA's personnel, who have been cleared by the Cross Functional Panel to undergo Safety training and who are likely to be deployed at various work sites of TPSODL by the BA, as a part of AMC / Work Contract.

Duration / Periodicity:

- Duration and periodicity has been defined above. However, this is subject to change at the discretion of TPSODL.

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Annexure 7 (Refer Para 5.7)

LIST OF PERSONAL PROTECTIVE EQUIPMENT AND TESTING FREQUENCY




Sl. No.	Name of PPE	IS / EN Standard	Testing Frequency	Remarks	Ref Brand & Model
01	Leather Safety Shoes (Color – Black) with PU toe cap.	IS:15298 (Part-2)	Monthly and visual check every day for any crack or damage in the leather or sole.		BATA (Model No.- Endura L/C) Liberty (Model No. – 7198-01 HT Barton Black – Warrior)
02	HDPE Safety helmet with chin strap and ratchet type for adjustment.	IS:2925-1984	Monthly and visual check every day for any crack in shell.		Karam (PN Safetech) Joseph Leslie Accent Industries Honeywell
03	Full body harness (Safety belt)	EN 361	Monthly and visual check every day of the bends and the harness.		Karam (PN Safetech) Joseph Leslie Accent Industries
04	Electrical Safety Gloves	EN: 60903 CE marked	Weekly and visual check for any crack and blow test before every work.	Manufactured not beyond 12 months.	Make Sparian / Sumitech / CATU supplied with inner cotton glove with over glove of split leather.
05	Full face visor with safety helmet	EN: 166 CE marked (Visor)	Monthly and visual check every day for any crack in shell.	Clear acrylic visor attached with safety helmet.	Karam (PN Safetech) Joseph Leslie Accent Industries Honeywell
06	Fireproof jacket for chest protection		Monthly and visual check every day.		
07	Safety Chain for shorting cum earthing.	As per TPSODL standard	Weekly and visual check before every work.	Made of brass, Total length – 5.5 meters and made of 12 SWG.	

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Note:

1. Any other Personal Protection Equipment required beyond above list will be according to BIS or EN Standards.
2. All Personal Protection Equipment will be checked by the engineer in-charge or SAFETY group of TPSODL.
3. Safety Representative of the BA has to maintain the record of the availability, condition and checking of the PPEs.
4. All tools required as per the contract must be according to respective IS / EN standards.
5. TPSODL may revise or add the above list of PPE and their specifications as and when feel necessary. The information about new specifications /models will be circulated by the Engineer In-charge (EIC), which shall adhere by the business associated in the shortest possible time. The EIC shall issue a memo / instruction to BA with timeline for implementation. Any delay will be treated as non- compliance / safety violations. Refer picture of each PPE given in next page.

Pictures of PPE for reference purpose.

Sl. No.	Name of PPE	IS / EN Standard	Picture
01	Leather Safety Shoes (Color – Black) with PU toe cap.	IS:15298(Part-2) and with test report of electrical resistance.	
02	HDPE Safety helmet with chin strap and ratchet type for adjustment.	IS:2925-1984	
03	Full body harness (Safety belt) The straps at shoulder and thigh shall have full pad for comfort. The back shall be so designed that harness straps do not tangle with each other.	EN 361:2002 EN 358: 2000 IS: 3521:1991/2002	

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04	Electrical Safety Gloves – Composite type Soft electrical gloves as per size of individual.	EN: 60903 CE marked	
05	Full face visor with safety helmet	EN: 166 CE marked (Visor)	
06	Fireproof jacket for chest protection		
07	Safety Chain for shorting cum earthing.	As per TPSODL standard	
08	Reflective jacket to each workman	As per TPSODL standard	

Note: Picture shown are for indicative purpose only. Actual product may differ.

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Annexure 8 (Refer Para 5.8) LIST OF AUDITS TO BE CONDUCTED

Audits	Responsibility	Freq.	Ref. Doc.
Permit to Work & Field Audit	BA Safety Representative	Weekly	F04 (COR P - 12)
Tool Bag & PPE's Audit		Weekly	F06 (COR P - 12)
First Aid Box Maintenance Record		Fortnightly	F08 (COR P - 12)
Fire Extinguisher Record <i>(Applicable for the BA involved in major construction works and have storage of flammable material at worksite)</i>		Monthly	F09 (COR P - 12)
Safety Talk Register		Weekly	F18 (COR P - 12)
Site Safety Audit		Daily	F29A (COR P - 12)

Note:

1. (BA Safety Representative has to use the formats as per Safety process COR – P – 12 of TPSODL)

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Annexure 9 (Refer Para 5.9)

PERFORMANCE REPORT – SAFETY

FOR THE MONTH OF.....

Name of BA:

Name of the Project and Purchase order No:

Date of commencement of work:

Man Hour Worked in this month (No. of employees X 8 Hrs + Overtime):

Cumulative Man Hour worked:

Total Number of Minor Injury (this month): Minor Injury (Total)

Major Injury (this month): Major Injury (Total):

Detail of the Incident / Sub Standard Acts and Condition

Activity	This Month	Cumulative (Total)	Day Lost (this month)	Days Lost (Cumulative)
No. of the Incident				
No. of lost time injuries				
No. of dangerous occurrences				
No. of near miss reported				
Substandard Act/Conditions observed			Attach details of observation of this month	
Safety Violation Notice received (from TPSODL) (both in numbers and in Rs.)	No.	No.	No. of violation letter received and compliance report for the TPSODL.	
	Rs.	Rs.		

Note: Cumulative means total from date of commencement of work according to the contract.

Detail of the Accident / Near Miss Incidents:

Date and Time	Type of the incident	Name of Employee	Brief Description	Corrective and Preventive actions recommended

Details of the Safety Violations:

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Date and Location	Brief Description	Name of employee involved	Action Taken

Detail of the Safety Talk / Toolbox Talk / Safety Training

Date and Location	Topic (s)	Total Number of employees (Worker / Supervisor)	Number of participants (Worker / Supervisor)

Detail of the Safety Meeting

Date and Location	Number of participants	Topics discussed	Major Observations / Innovation

Detail of the Safety Inspection /Audit: (as per TPSODL site audit checklist F29A(COR-P-12))

Date	Area / Location	Major Observations	Recommendations	Action Taken

Any other Safety, Occupational Health, Environment & Disaster Management Promotional Activity (During this month):

Date	Location	Activity	Level of Participation	Number of participations

Signature of the BA Safety Representative
HoG

Signature of ZM /

Name, E. No. and Date

Name, E. No. Date.

Note: The original form to be deposited with Engineer in-charge and a copy to SAFETY group on or before 5th of every month along with bill. List of training of the current month and status of PPE to be also mentioned individual wise.

BA may include additional lines if required. The TPSODL may revise the format as and when deemed required.

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ANNEXURE-M
VENDOR APPRAISAL FORM

TO BE SUBMITTED BY VENDOR (To be filled as applicable)			
VENDOR:			
1.0	DETAILS OF THE FIRM		
	1.1	NAME (IN CAPITAL LETTERS)	:
	1.2	TYPE OF CONCERN (PROPRIETORY) Partnership, Pvt. Ltd., Public Ltd. etc.	:
	1.3	YEAR OF ESTABLISHMENT	:
	1.4	LOCATION OF OFFICE POSTAL ADDRESS TELEGRAPHIC ADDRESSES, TELEX NO. FAX NO.	:
	1.5	LOCATION OF MANUFACTURING UNITS	:
		i) UNITS 1	:
		ii) OTHER UNITS	:
2.0	PRODUCTS MANUFACTURED		:
3.0	TURNOVER DURING THE LAST 3 YEARS (TO BE VERIFIED WITH THE LATEST PROFIT & LOSS STATEMENT).		:
4.0	VALUE OF FIXED ASSETS		:
5.0	NAME & ADDRESS OF THE BANKERS		:
6.0	BANK GUARANTEE LIMIT		:
7.0	CREDIT LIMIT		:
8.0	TECHNICAL		
	8.1	NO. OF DESIGN ENGINEERS (INDICATE NO. OF YEARS EXPERIENCE IN RELATED FIELDS)	:
	8.2	NO. OF DRAUGHTSMEN	:
	8.3	COLLABORATION DETAILS (IF ANY)	:
		8.3.1 DATE OF COLLABORATION	:
		8.3.2 NAME OF COLLABORATOR	:
		8.3.3 RBI APPROVAL DETAILS	:

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		8.3.4 EXPERIENCE LIST OF COLLABORATORS	:
		8.3.5 DURATION OF AGREEMENT	:
	8.4	AVAILABILITY OF STANDARDS / DESIGN PROCEDURES / COLLABORATOR'S / DOCUMENTS (CHECK WHETHER THESE ARE LATEST/CURRENT)	:
	8.5	TECHNICAL SUPPORT, BACK-UP GUARANTEE, SUPERVISION, QUALITY CONTROL BY COLLABORATOR (WHEREVER ESSENTIAL). (THIS CLAUSE IS RELEVANT WHEN VENDOR'S EXPERIENCE IS INADEQUATE)	:
	8.6	QUALITY OF DRAWINGS	:
9.0	MANUFACTURE		
	9.1	SHOP SPACE, LAYOUT LIGHTING, VENTILATION, ETC.	:
	9.2	POWER (KVA)	:
		MAINS INSTALLED	:
		UTILISED	:
		STANDBY POWER SOURCE	:
	9.3	MANUFACTURING FACILITIES (ATTACH LIST OF EQUIPMENT AS APPLICABLE)	:
		9.3.1 MATERIAL HANDLING	:
		9.3.2 MACHINING	:
		9.3.3 FABRICATION	:
		9.3.4 HEAT TREATMENT	:
		9.3.5 BALANCING FACILITY	:
		9.3.6 SURFACE TREATMENT PRIOR TO PAINTING/ COATING, POLISHING, PICKLING, PASSIVATION, PAINTING, ETC.	:
	9.4	SUPERVISORY STAFF	:
	9.5	ADEQUACY OF SKILLED LABOURS (MACHINISTS, WELDERS, ETC.)	:
	9.6	NO. OF SHIFTS	:
	9.7	TYPE OF MATERIAL HANDLED (SUCH AS CS, SS, ETC.)	:
	9.8	WORKMANSHIP	:

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	9.9	MATERIAL IN STOCK AND VALUE	:
	9.10	TRANSPORT FACILITIES	:
	9.11	CARE IN HANDLING	:
10.0	INSPECTION / QC / QA / TESTING		
	10.1	NUMBER OF PERSONNEL (INDICATE NO. OF YEARS OF EXPERIENCE)	:
	10.2	INDEPENDENCE FROM PRODUCTION	:
	10.3	AVAILABILITY OF PROCEDURAL WRITE UP/QUALITY PLAN	:
	10.4	INCOMING MATERIAL CONTROL AND DOCUMENTATION	:
	10.5	RELIABILITY/REPUTATION OF SUPPLY SOURCES	:
	10.6	STAGE INSPECTION AND DOCUMENTATION	:
	10.7	SUB-ASSEMBLY & DOCUMENTATION	:
	10.8	FINAL INSPECTION AND DOCUMENTATION	:
	10.9	PREPARATION OF FINAL DOCUMENTATION PACKAGE	:
	10.10	TYPE TEST FACILITIES	:
	10.11	ACCEPTANCE TEST FACILITIES	:
	10.12	CALIBRATION OF INSTRUMENTS AND GAUGES (WITH TRACEABILITY TO NATIONAL STANDARDS) (ATTACH LIST)	:
	10.13	STATUTORY APPROVALS LIKE BIS, IBR, ETC. (AS APPLICABLE)	:
	10.14	SUB-VENDOR APPROVAL SYSTEM AND QUALITY CONTROL	:
	10.15	DETAILS OF TESTS CARRIED OUT AT INDEPENDENT RECOGNISED LABORATORIES	:
	i)	FURNISH LIST OF TESTS CARRIED OUT AND THE NAME OF THE LABORATORY WHERE THE TESTS WERE CONDUCTED	:
	ii)	CHECK AVAILABILITY OF CERTIFICATES AND REVIEW THESE WHEREVER POSSIBLE	:
11.0	EXPERIENCE (INCLUDING CONSTRUCTION / ERECTION / COMMISSIONING) TO BE FURNISHED IN THE FORMAT INDICATED IN APPENDIX)		:
12.0	SALES, SERVICE AND SITE ORANISATIONAL DETAILS		:
13.0	CERTIFICATE FROM CUSTOMERS (ATTACH COPIES OF DOCUMENTS)		:

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14.0	POWER SITUATION	:
15.0	LABOUR SITUATION	:
16.0 *	APPLICABILITY OF SC/ST RELAXATION (Y/N) IF YES, SUPPORTING DOCUMENTS TO BE ATTACHED	
17.0	ORGANIZATIONAL DETAILS <ol style="list-style-type: none"> 1. PF NO 2. ESI NO 3. INSURANCE FOR WORK MAN COMPENSATION ACT NO 4. ELECTRICAL CONTRACT LIC NO 5. ITCC / PAN NO 6. SALES TAX NO 7. WC TAX REG. NO 	:
18.0	DOCUMENTS TO BE ENCLOSED: <ol style="list-style-type: none"> 1. FACTORY LICENSE 2. ANNUAL REPORT FOR LAST THREE YEARS 3. TYPE TEST REPORT FOR THE ITEM 4. PAST EXPERIENCE REPORTS 5. ISO CERTIFICATE –QMS, EMS, OHAS, SA 6. REGISTRATION OF SALES TAX 7. COPY OF TIN NO. 8. COPY OF SERVICE TAX NO. 9. REGISTRATION OF CENTRAL EXCISE 10. COPY OF INCOME TAX CLEARANCE. 11. COPY OF PF REGISTRATION 12. COPY OF ESI REGISTRATION 13. COPY OF INSURANCE FOR WORK MAN COMPENSATION ACT NO 14. COPY OF ELECTRICAL CONTRACT LIC NO 15. COPY OF PAN NO 16. COPY OF WC TAX REGISTRATION 17. DOCUMENTS IN SUPPORT OF SC/ST RELAXATION AT S.NO.16.0 18. GST Registration No 	

* Classification of BA s under SC/ST shall be governed under following guidelines:

- **Proprietorship/ Single Ownership Firm:** Proprietor of the firm should be from SC/ST community. Governing document shall be Proprietorship Deed.
- **Partnership Firm:** Only such firms shall qualify which have SC/ST partners holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Partnership Deed.
- **Private Limited Company:** Only such firms shall qualify which have SC/ST directors holding equal to or more than 50% of the total ownership pattern of the firm. Governing document shall be Memorandum of Understanding (MoU) and/or Article of Association (AoA).

NOTE: Certification from SC/ST Commission shall be required for deciding upon SC/ST status of a person.

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ANNEXURE-N
MANUFACTURER AUTHORIZATION FORM

(To be submitted on OEM's Letter Head)

Date:

Tender Enquiry No.:

To,

Chief (Procurement & Stores)

TP Southern Odisha Distribution Limited,
Berhampur

Sir,

WHEREAS M/s. [name of OEM], who are official manufacturers of having factories at [address of OEM] do hereby authorize M/s [name of bidder] to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us

.....

and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with the Special Conditions of Contract or as mentioned elsewhere in the Tender Document, with respect to the Goods offered by the above firm in reply to this Invitation for Bids.

We hereby confirm that in case, the channel partner fails to provide the necessary services as per the Tender Document referred above, M/s [name of OEM] shall provide standard warranty on the materials supplied against the contract. The warranty period and inclusion / exclusion of parts in the warranty shall remain same as defined in the contract issued to their channel partner against this tender enquiry.

Yours Sincerely,

For

Authorized Signatory

The Tata Power Company Ltd



Contractor's Safety Code of Conduct

*Document No.
TPSMS/GSP/CSM/015 REV 06*

*Date of Issue:
15/08/2021*

Contractor's Safety Code of Conduct

Reason for Change	Date of Last Revision	Prepared By	Reviewed By	Approved by
1.Simplify the procedure. 2.Addition of capability building 3.Removal of CFSA 4. Addition of Environment KPI 5.Retention amount is based on Risk involved in Job	<u>11-May-2015-R1</u> <u>15 August-2021-R6</u>	Rajesh Sharma (Head-Safety Generation)	All divisions / Chief Corporate contracts	Suresh H Khetwani (Chief safety and Environment)

The Tata Power Company Ltd		Contractor's Safety Code of Conduct
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1. Objective

The Tata Power engages contractor workforce to execute, run and maintain various operating sites and facilities across locations for various business verticals including Generation, Transmission, Distribution and Renewable. The activities range from project execution, operation, maintenance to facilities management.

The management of contractor safety represents a significant challenge for management. Tata Power has a responsibility to ensure that contractors are provided with enough information and support to enable them to conduct their roles safely and without endangering health and safety of their own workforce or that of our staff.

To ensure reduction in reportable injuries and achieve goal of "no harm no injury", first edition of contractor safety code of conduct was launched successfully in the year 2014. Since last seven years after the launch of CSCC, Tata Power could achieve the objective of reduction in reportable injuries and fatalities.

Over the period, as the system was being matured, a need was felt to make next revision of the CSCC process. Objective of next revision is improving existing CSCC system and make it user friendly.

2. Scope: This procedure applies to all operating and project sites of The Tata Power Company Ltd and Group companies including new businesses like Electric Vehicle charging, Home Automation, Microgrid, Roof top solar etc.

3. Definitions

- 3.1. Order Manager:** Order Manager is the Tata Power representative, who has the ownership of the given job.
- 3.2. Site Safety Management Plan:** It is the safety plan agreed between Contractor and Tata Power. It will contain the entire job specific safety requirement and will be signed by the contractor.
- 3.3. Contractor:** An individual or a company that provides services to Tata Power under a signed contract.
- 3.4. Emergency:** a serious, unexpected or dangerous situation requiring immediate action, which may result in loss of revenue/property, business discontinuity. In case of Emergency*, services may be procured by selecting the qualified vendor based on the vendor category without the safety bid evaluation. It must be approved by MB level and above.

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- 3.5. Expert Service jobs:** Jobs which needs expert services of contractor which does not involve direct exposure to the potential risk or work which involves only supervisory work such as expert for turbine overhaul, expert for boiler overhaul, expert for pump and motor, expert for compressor overhaul.
- 3.6. CEO/Chief/Head of division/Unit/Utility:** Business in charge of the division who is overall custodian of the generating station or transmission division or distribution division.
- 3.7. Category A Vendor:** Vendor eligible to carry out Very High & High risk (as per Tata Power Hazard Identification and Risk Analysis Procedure) and /or Long-Term Contract related to operation and maintenance (O&M) of plant. Vendors must fulfil the requirement specified for Category A in Appendix 12-CSMF-5 of this document.
- 3.8. Category B Vendor:** Vendors eligible to carry out technical jobs, that are classified under Medium /low risk. Vendors must fulfil the requirement specified for Category B in Appendix 12-CSMF-5 of this document.
- 3.9. Category C Vendor:** Vendors eligible for to carry out low or very low risk administrative and office jobs. For this he must fulfil the requirement specified for Category C in Appendix 12-CSMF-5 of this document.
- 3.10. Category D Vendor:** All Consultants, Medical Practitioners or vendors taking job from Tata Power and working from their own premises (e.g. motor rewinding at vendor's shop floor, equipment sent for repair to vendor's works etc.) are classified as Category D Vendor
- 3.11. High/Very High-Risk Jobs:** A Job or its activities are considered as Very High or High Risk when Order manager apply the "Tata Power Hazard Identification and Risk Analysis" procedure and found safety risk associated with are under Very High or High category. Indicative lists of jobs are given in appendix 15 of this document.
- 3.12. Medium Risk Jobs:** Jobs or its activities are considered as medium risk when Order manager apply "Tata Power Hazard Identification and Risk Analysis" procedure and found the same as Medium Risk.
- 3.13. Low/Very low Risk Jobs:** Any job or its activities are considered as Low or Very low risk while Order manager, calculate it by applying "Tata Power Hazard Identification and Risk Analysis" procedure and found it under Low or Very Low category.
- 3.14. Long Duration Jobs:** When the duration of job is 12 months or more, it is considered as Long duration job

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3.15. High Value Jobs: When the value of the job contract is Rs. One Crore or more it will be considered as High value job.

4. Responsibilities

4.1 Order Manager: Order Manager is the Tata Power representative, who is responsible for:

- 4.1.1 Finalizing the Site Safety Management Plan along with Contractor, Safety Concurrences Group, Divisional Safety Head and Expert (External or Internal) if required.
- 4.1.2 Ensure 100% safety capability building L1, L2, L3 for contractor work force and supervisor before start of Job
- 4.1.3 Ensure Contractor safety revalidation test for all work force quarterly.
- 4.1.4 Supervise and ensure work is carried out as per the Site Safety Management Plan including agreed Risk Assessment (HIRA/JSA) and Method Statement.
- 4.1.5 Conduct audit and evaluate Safety Performance of contractor.
- 4.1.6 Ensure contractors adhere to all statutory provisions.
- 4.1.7 In case any deviation is needed in agreed safety management plan or in CSCC process for execution of job, Management of Change procedure will be applicable, and approval may be obtained from divisional head /Cluster head.

4.2 Contractor: The person, entity or organisation who is executing the job for Tata Power under a contractual agreement and will be responsible for the following

- 4.2.1 To follow all Tata Power Critical Safety Procedure, Rules and guidelines given in Safety Terms and Conditions
- 4.2.2 Undertake job as per Site Safety Management Plan CSM-F10 and method statements agreed with Tata Power.
- 4.2.3 Ensure 100% safety capability building L1, L2, L3 for contractor work force and supervisor before start of Job
- 4.2.4 Ensure Contractor safety revalidation test for all work force quarterly.
- 4.2.5 Raise any concerns regarding their work and its safety with the Tata Power Order Manager.
- 4.2.6 Report all injuries, near misses, unsafe acts/conditions, and occurrences to the Tata Power Order Manager immediately.
- 4.2.7 Ensure that all sub-contractors follow the Tata Power Safety Procedure and agreed Site Safety Management Plan CSM-F10.
- 4.2.8 To follow all statutory requirements as per the laws of the land.
- 4.2.9 All vendors applying for A category jobs or submitting quote for high risk jobs shall obtain certificates of ISO 9001, ISO14001 and ISO45001 before submitting quote for high risk Jobs.

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4.3 Safety Concurrence Group: It is Cross Functional Team of heaving representatives from Execution department, Divisional safety and Corporate / Divisional contracts. SCG will be responsible for the following

- 4.3.1 Assessment of Safety Potential of new vendor before registration as per CSM-F1-Safety Category Qualification Form.
- 4.3.2 Safety Evaluation of the bids as per evaluation format CSM-F-9 Safety Bid Evaluation Criteria
- 4.3.3 Finalization of the Site Safety Management Plan CSM-F-10 submitted by the contractor.

Corporate Safety Team / Cluster Safety Head will be part of SCG during Safety Bid Evaluation for following types of jobs

High-Risk jobs to be carried out in Annual Overhaul / Major Shutdowns and Outages.
Capex jobs of High-Risk Category

5. Responsibilities

5.1 Vendor Registration

For Vendor Registration, Corporate Contract will issue following documents for evaluation of contractor's safety capability

- 1) CSM-F1 –Safety Category Qualification Form
- 2) Safety Terms and Conditions

The document Safety Terms and Conditions provides the information about Tata Power safety System to the contractor. Contractor will submit the CSM-F1- Safety Category Qualification Form with all relevant details and documents to Vendor Registration Initiator, which will in turn forward it to Safety Concurrence Group (SCG) for evaluation. The SCG will evaluate the details submitted by the contractor based on a predetermined criteria CSM-F-5 Safety Potential Evaluation Criteria for Vendor Registration and will determine the category (Category A/B/C/D) for which the contractor will be registered. As mentioned in the above criteria, a site visit may also be organized by SCG prior to registration under Category A and B. In case, the contractor does not qualify the safety criteria, the contractor will not be registered. However, he may apply afresh for registration after 6 months. Please refer Appendix 1: Process Flow Chart for Vendor Registration.

5.2 Bid evaluation

At the time of placing the Purchase Requisition (PR), Order Manager is required to declare the risk involved in the of the job (i.e. Very high/High Risk / Medium Risk / Low/Very low Risk jobs, based on the RPN in HIRA. If the Job is "Very high/High Risk" or "Long Duration", then RFQ will be attached with following documents:

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- 1) CSM-F7- Blank Safety Competency Form
- 2) CSM-F8- PPE requirements
- 3) Safety Terms and Conditions
- 4) Job Specific Safety Requirement (Educational and Professional Qualification, Skill & Experience Manpower, Tools and Tackles (e.g. man lifter, use of drone, use & availability of rescue kit), Work Methodology etc.)

Otherwise the RFQ will be attached only with Safety Terms and Conditions. ~~Long term and low value jobs (see definition) are exempted from the CSCC process.~~

Corporate Contracts will collect duly filled CSM-F7 Safety Competency Form along with the bid. All other stakeholders will also put their efforts to get all relevant safety data during meeting / discussions with the vendor. SCG will evaluate the document as per the CSM-F9 Safety bid evaluation criteria. If any specific condition related to Contract is required to convey to contractor, Site safety team will attach the same as Annexure for specific conditions of job and submit it to contract team along with safety bid evaluation form. Commercial bid of contractor will be considered for evaluation by contract team only if contractor is qualified in safety bid. Site Safety Management Plan, defining the complete procedure of executing the job at site will be signed by the contractor and SCG after mutual agreement. CC will attach a copy of site safety Management Plan and any specific condition of contract along with PO to the successful bidder. Please refer Appendix 6: Process Flow Chart for issuing RFQ and PO significant health and safety risk associated with it.

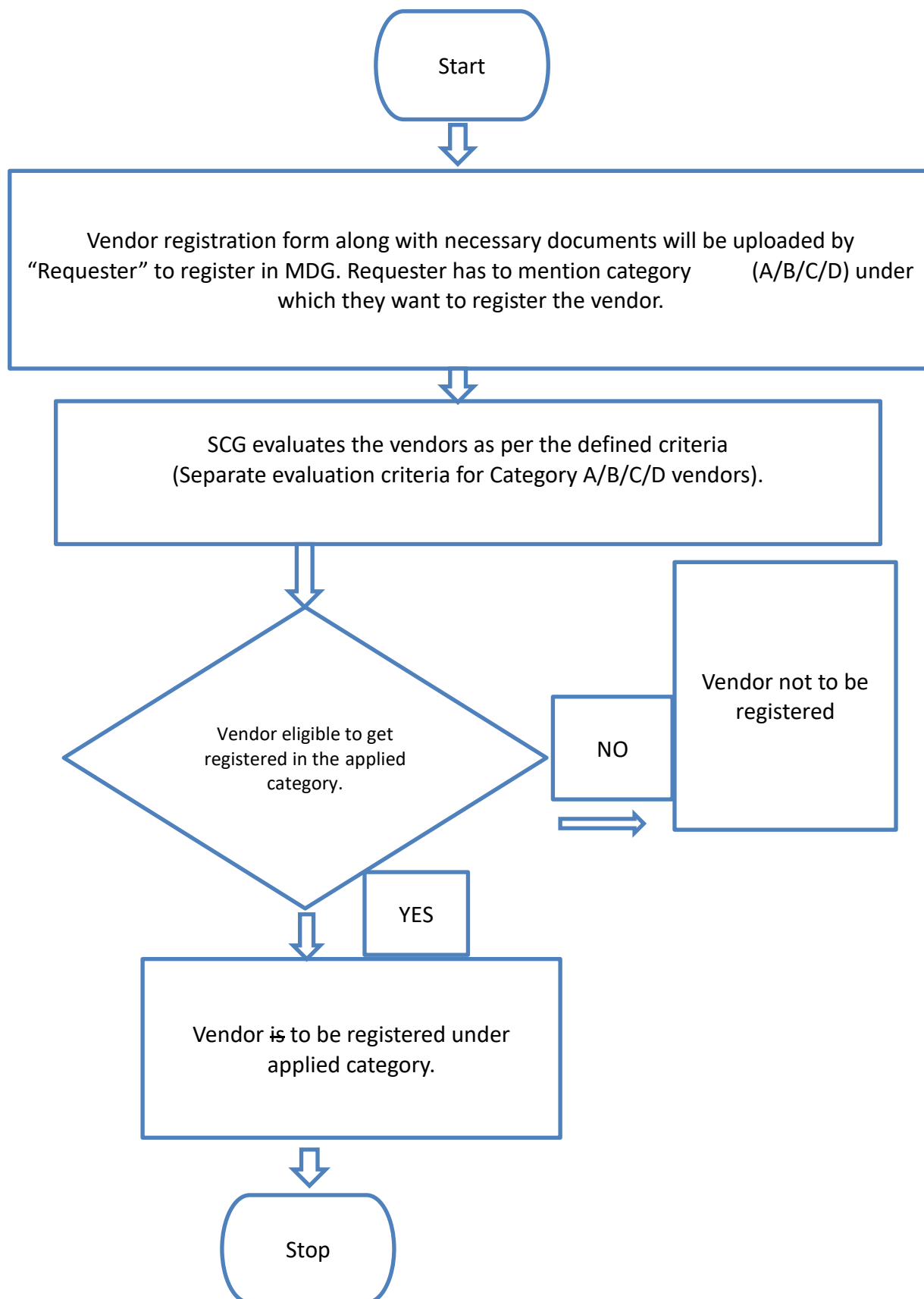
5.3 Capability Building. Refer safety terms and condition clause 5.2. Appropriate training such as SHE L1, L2& L3 is given to ensure that a jobholder, either supervisor or worker, is competent to do his/her job safely. The skill training is provided through TPSDI and other agencies authorized by Tata Power on the list of 15 critical Safety procedures mentioned under safety procedure. Duration of course is as specified by Tata Power. These trainings are on nominal chargeable basis and rates are decided by TPSDI from time to time. Contractor shall ensure that concerned workmen are provided with adequate training before he/she is allowed to execute the work. 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 Certificate (Card), which is valid for 3 years, post which the workmen have 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.

5.4 Recognition to the Prior Learning in Safety: If "Order Manger" recommends and "Head of the Safety Department of division" is satisfied with the safety knowledge and competency of the employee of contractor a test (RPL) may be conducted by TPSDI / other recognised institute to assess the prior learning in safety. If employees of the contractors will pass in such test, he will be exempted from appearing in SHE L1 training.

5.5 Safety Performance Evaluation

During the time of job execution, regular site inspection will be carried out by the Tata Power officials and violations will be dealt as per CSM–F4 Safety Violation Penalty Criteria. Apart from this, monthly safety performance of the contractor will be evaluated based on the predetermined criteria as per CSM-F11 safety Performance Score and monthly score will be maintained by the Order Manager. Certain percentage of each running bill will be retained as Safety Retention amount and will be released on the basis of Safety Performance Score at certain intervals as defined in CSM- F-3- Safety Performance Evaluation Criteria. Please refer Appendix 10: Process Flow Chart for Safety Performance Evaluation. Percentage of retention amount is mentioned in safety terms and conditions.

Appendix 1: Process Flow Chart for Vendor Registration



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Appendix 2: CSM-F-2 Safety Category Qualification form

1. "Safety Category Qualification Form" is part of vendor registration form. It needs to be filled by the contractor at the time of Registration and should submitted to Requester / order manager with all relevant documents.
2. The same will be evaluated by Safety Concurrence Group as per the criteria given in CSM-F-5.
3. Information provided by contractor will be verified during site visit

Safety Category Qualification Form

(to be filled by the vendor)

Please Consider my application for

Category A Vendor: Vendor eligible to carry out Very High- and High-risk O&M jobs

Category B Vendor: Vendors eligible to carry out technical jobs, classified as Medium / low risk

Category C Vendor: Vendors eligible for to carry out low or very low risk administrative and office jobs

Category D vendor: All Consultants, Medical Practitioners or vendors taking job from Tata Power and working from their own premises.

Register me/us to do following Job(s):

- 1.
- 2.

Name of the Vendor:						
Sr. No	Safety Information	Remarks	Attachment			
1	Certified for i. OHSAS 18001/ ISO 45001, ii. ISO: 14001 iii. ISO: 9001 (ISO certificates to be issued from reputed accreditation agencies specified by Tata Power)	i. Y/ N ii. Y/ N iii. Y/ N	Attach copy of the certification			
2	Safety Statistics for Last Three (3) Years - LTIFR - LTISR	Yes/No		Year 1 (Last FY)	Year 2	Year 3
			LTIFR			
			LTISR			
3	Do you have Safety Policy?	Yes/No	Attach copy of the safety policy.			
4	Do you have Safety training process?	Yes/No	Attach safety training process.			
5	Do you have Safety organization structure e.g. Safety Officers and Safety Committees?	Yes/No	Attach copy of the safety organization structure.			
6	Name and address of sites where work is in progress or worked earlier	Yes/No	Site details to be attached for inspection by Officials.			

Signature :

Name and Designation :

Stamp of Organization :

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Appendix 3: Safety Terms and Conditions

Please refer the attached document Safety Terms and Conditions.

Appendix 4: CSM- F-4 Safety Violation Penalty Criteria

Penalty shall be imposed on the contractors under the following circumstances for breaching the contractual agreements:

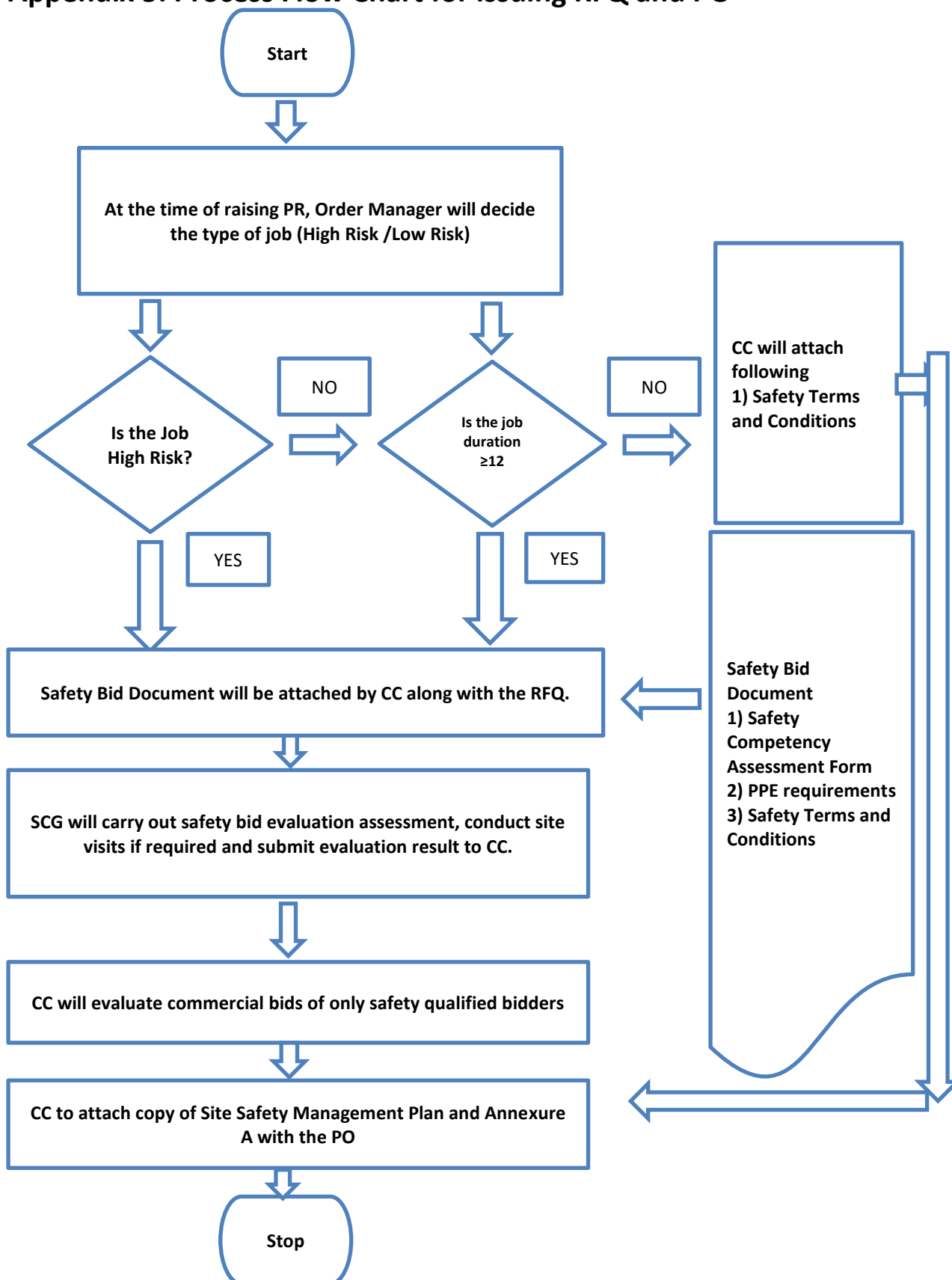
Sr No	Description of violation	Severity	Penalty
1.	Working without Permit	5	5000/-
2.	Untrained (TPSDI) worker on high-risk jobs.	5	5000/-
3.	Unhygienic/Bad condition of PPE	2	250/-
4.	Not following Tata Power Procedure & Standard	4	2000/-
5.	Unsafe Act/Condition of Severity 4	4	2000/-
6.	Unsafe Act/Condition 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 IC engine-based Three-wheeler at the work site.	5	5000/-
16.	Starting the job without Toolbox 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 equipment.	5	5000/-
21.	Using damaged slings.	5	5000/-
22.	Unstable scaffolding/nonstandard 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 lifeline not used for working at height	5	5000/-
27.	No rubber mat in Electrical Distribution (DB) room	4	2000/-
28.	Water found accumulated in Electrical Distribution 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 Distribution Room / welding areas.	4	2000/-
32.	Loose material falling into excavated pit	4	2000/-
33.	Water logging into excavated pit /trenches	4	2000/-

34.	No / inadequate Barricade	4	2000/
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 have 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 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	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 passenger cars.	3	500/
56.	Heavy 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 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/
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.	Hand 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	5/ 00/-
70.	Scotch block/wedge not provided, 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 (e.g. Godown / Warehouse / Store of flammable material etc. / Area prone to dust explosion)	5	1000/-
84.	Sleeping at Workplace	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.	Nonfunctional Head light/ taillight 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/-
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.	• First Time	3	Warning
101.	• Second Time	4	1000/-
102.	• Third Time	5	5000/-
103.	Serious Violation of House Keeping (after 1st or 2nd warning to be decided by Project Manager depending on the severity)	5	Rs.10000/- and above
104.	Repeat Violation of same nature	5	5 X Penalty for Violation
105.	Appointment of subcontractor without his Safety Bid Evaluation and/or without the permission of engineer in charge or Order manager.	5	5% of Contract Value

Appendix 5: Process Flow Chart for issuing RFQ and PO



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Appendix 6: CSM-F-6 Safety Competency Form (Template)

Name of the Vendor/Bidder : -

Name of the Sub Vendor (If job is given to Sub Vendor) : -

Description of the Job : -

Request for Quotation (RFQ) No. :-

Vendor/Bidder to mandatorily provide the below safety competency related information.

1. Proposed Manpower Deployment Schedule : -

Category of Manpower Deployed	Minimum Qualification & Experience	Proposed Numbers against each category month-wise			
		Month 1	Month 2	...	Month n
Project Manager					
Site-In-Charge (Site Manager)					
Shift-in-Charge					
Safety Officers					
Supervisors					
Technicians					
a.....					
b.....					
Highly Skilled Workmen					
a.....					
b.....					
Skilled Workmen					
Semi-Skilled Workmen					
Unskilled Workmen					
Total Manpower					

Instructions to Bidder to fill:

- Bidder to provide the overall site manpower deployment schedule as above.
- Bidder to indicate (through colour code mentioned below) their direct and sub-contracted employees
Direct bidder employee
Partly Direct / Partly sub-contracted
Sub-Contracted
- Against each of the category, bidder to indicate the minimum qualification and experience of the proposed manpower.
- Rows can be added to also identify other specialised manpower e.g. specific details to be included for high risk activities operators
- Columns can be extended to the actual duration of Site activities.
- Bidder to note that if operations is in shifts, then Shift-in-charge / safety officers are required for each shift of operation.

2. List of Tools, Tackles, Machines and Equipment: -

Bidder/ Vendor to provide the list of tools, tackles, equipment **to be used during the job / project execution**. Bidder/Vendor to ensure that all the lifting tools and tackles, pressure vessels are duly certified by the competent person authorised by the Chief Inspector of Factories of the respective state prior to start of the job

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Sr. No.	Description of Tools / Tackles	Capacity / Rating	Quantity	Make	Remarks
1					
2					
3					
4					
5					
6					
7					
...					

3. Safety Records:

Bidder to provide the details of fatalities and lost workday cases (LWDC), occurred in last three years (data to be provided for the last completed FY and preceding 2 years).

Description	Safety Data for Last 3 Years		
	Year 1 (Last FY)	Year 2	Year 3
	20 -	20 -	20 -
Fatalities (Nos.)			
Lost Workday Cases (Nos.)			

In case of no fatalities, LWDC during any year, the form may be filled stating NIL against the respective year. Bidders are encouraged to also submit the RCA / incident investigation reports and the learning's implemented out of the above reported incidents

4. Job Safety Plan/ Method Statement:

Bidder to provide / enclose a detailed Site/Job Safety Plan along with a Method statement detailing the execution philosophy (how the bidder intends to execute the Job/Project), identifying all key activities which are required to be performed by the contractor at Site. Bidder to also list down all high-risk activities and provide the Hazard Identification and Risk Assessment (HIRA) for all such high-risk activities involved in the site work.

(Use Method Statement template attached as annexure A and sample as attachment B)

5. Management System Certification: -

Sr.	Certification	Yes / No	If Yes, Year of Certification	If No, Target date for Certification
	ISO 9001			
	ISO 14001			
	OSHAS 18001 / ISO 45001			
	Any other (please specify.....)			

Note: Please attach certificates to support above. In case not accredited for above but applied for, application letters may be attached.

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Appendix 7: CSM-F-7 PPE requirements

The Contractor shall ensure that the following PPE of Approved standards shall be available at all time and shall be used by his employees with no exception whatsoever.

1	All contractor's employees at site	Safety Florescent Jacket (orange color), Safety helmet & safety shoes with Composite or steel toe cap
2	Workers mixing asphalt, cement, lime / concrete	Safety goggle & protective Hand gloves and footwear, Nose mask.
3	Welders / Grinders	Welding screen/goggles, safety shoes, leather hand gloves, aprons, leg guard
4	Stone breaker	Protective goggle, hearing protection, anti-vibration hand gloves and Protective clothing.
5	Electricians/ <u>Line man</u>	Rubber hand gloves & Electrical resistant shoes.
6	Workers engaged in insulation using glass wool etc.	Respiratory mask & leather Hand gloves, goggles.
	Workers engaged in coal handling plant, ash handling plant and working in high dust area.	Dust mask, Hand gloves, protective goggles.
7	Workers working at a height of 1.8 Meter or above.	Double lanyard full body harness, fall arrestor and safety net made of reinforced nylon fiber ropes firmly supported with steel structures

- PPE shall be conforming to BIS/DGMS/DIN specifications, in good condition and shall be comfortable to his employees, when used.

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Appendix 8: CSM- F-8 Site Safety Management Plan / Method Statement

Site Safety Plan / Method Statement (Template)

This Method Statement describes the specific safe working methods which will be used to carry out the described work. It gives details of work procedure with control measures to counter health and safety issues related to this work. The listed content of this Method Statement can be changed/modified subjected to job scope / specifications, but task specific method statement once finalized & approved, that should not be modified during work execution without permission from the approving authority.

Project/Job Name			
Scope of work: -			
Drawing References: -			
Detail of Sub contractors involved: -			
Method Statement Prepared By: - Designation: - (e.g. Site Manager)	<u>Signature</u>		<u>Date</u>

1.0 Introduction *(Describe purpose of the work, give details of type and scope of work being carried out);*

--

2.0 Location of Work *(Give site address and precise location on site where work is to be carried out.)*

--

3.0 Safety Document /Specific Approval Required *(Details of any safety documents or specific approval i.e. Client specific approval required to undertake the work)*

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5.0 Role & Responsibilities of Personnel/Parties Involved in activities: -Clearly define role and responsibilities of all personnel involved in activity i.e. Site management staff including subcontractors' parties- Main contractor Project/Site Manager, Sub Contractor Site Manager, Project Engineer, Safety officer, Competent Supervisory Staff)

6.0 Working/Activity Description: - It is important that all operatives should have clear idea of those operational sequences and responsible supervisor must verify their competency prior to their engagement in operation.

6.1 Pre-Working Checks

6.2 Resources (Equipment, tools including manpower) Details i.e. Equipment and Tools, specific operational equipment, test kits, lifting resources, Details of materials to be used in operation, including any reference to COSHH assessments in case of use of any chemicals, Details of the manpower allocated to the task, e.g. titles, qualifications, competences, direct manpower, contractors. Details of plant, tools and equipment to be used for the work, including the availability of relevant statutory documents, checks or inspections etc. Details of fencing, barriers, cones, chains, dangers notices, warning signs etc.

Tools required for work:

Sr.No	Tools /Equipment /Machine	UOM	Required Qty.	Remark
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

6.4 Operational Sequence of work: - Full description of the work, setting out the methodology in a sequential manner, including any reference to any identified operational restraints. Also refer here sec. 5.0 responsibilities part for every step of work sequence).








Sr.No	Activity	Details of job sequence	Risk Involved	Control Checks
1.		1.		
2.				
3				
4				
5.				

6.7 Final Checks & restoration of work area after completion of work :- Those checks to be carried out by responsible supervisor in witness of his line hierarchy by use of specific checklist of certain operational checks and once those completed satisfactory, PTW (if applicable) to be closed and isolation arrangements to be restored by removing barricades/cautionary tags.

7.0 Task Specific Hazards: - Refer to Task Specific Risk Assessment and attach in appendix

Attachment: - Specific Risk Assessment

In addition, please provide below control measures in risk assessment (as applicable).

Fall Protection Measures: (Where Work at height cannot be avoided)							
Control Measures for Electrical Hazards							
Others Hazard if any (please provide details)							
Hazardous Substances to be used in job : (Attach MSDS if required)							
	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No	Yes /No

7.0 Emergency Provisions: -Relevant operational possibility of a programme in the case of emergency situation i.e. electrical supply restoration. In addition emergency response provisions i.e. first aiders, fire fighting, and first aid arrangements, nearest onsite/offsite emergency response also to be considered during emergency planning.

--


8.0 "5S issues" / Waste Disposal/ Housekeeping and Environmental issues: -*Details waste disposal processes and or housekeeping activities, Details of environmental impacts and control measures.*

--

9.0 Personal Protective Equipment (PPE):- (*Tick on PPE requirements for the task/Job*)

Required Personnel Protective Equipment:	 Safety Boots	 Hard Hats	 Safety Gloves	 Hearing Protection	 Eye Protection	 Respiratory Protection	Other: 1. Hi-Viz 2. Coveralls 3.
---	---	--	--	---	---	---	--

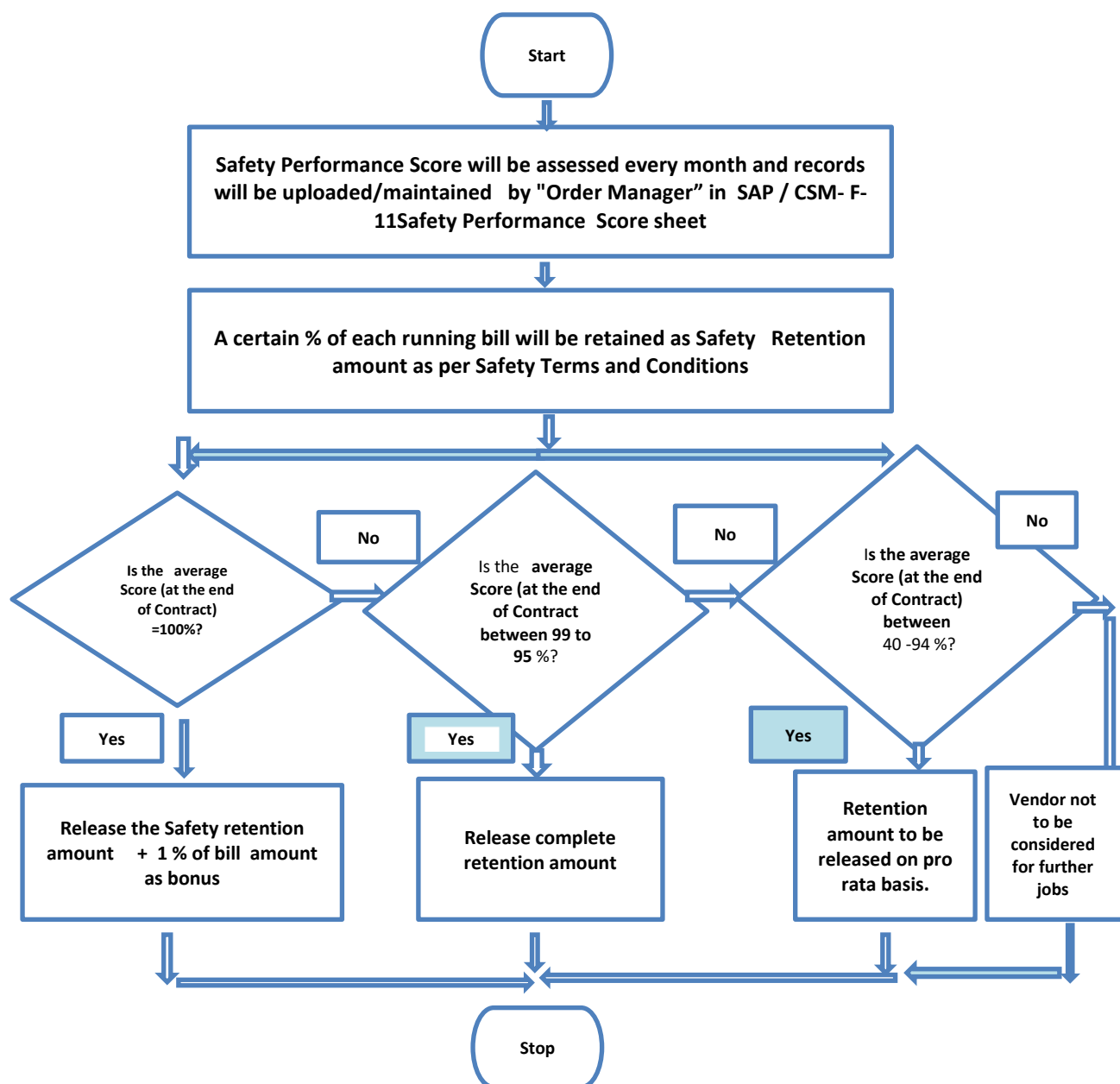
10.0 First Aid facilities and Nearby Hospitals Details

 First Aid	Name of On-Site First Aider:	
	First Aid Box Location:	
	Location of Nearest Hospital:	

11.0 Occupational Health, Fitness and COVID-19 related Preparedness:

1. Please give a brief writeup / methodology of your organization planned to avoid impact of the COVID-19 pandemic at Tata Power working site.
2. Please give brief details of occupational health and hygiene related interventions planned by your organisation to ensure good health and fitness of workforce at Tata Power site.

Appendix 9: Process Flow Chart for Safety Performance Evaluation



Appendix 10: CSM- F-10- Safety Performance Evaluation Criteria

1. 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 or every six-month based on Safety Performance Score of contractors. The retention amount will be calculated based on contract value as below.

<u>Contract Value</u>	<u>Retention Amount (%)</u>
-----------------------	-----------------------------

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<u>Very high/High risk job</u>	<u>2.5</u>
<u>Medium Risk jobs</u>	<u>2</u>
<u>Low/Very Low Risk jobs</u>	<u>1.0</u>

2. The evaluation criteria include Lead Indicators such as CFSA (Contractor Field safety Audit) score, percentage of workers trained in TPSDI, inspection of critical equipment. Lag indicators such as Fatalities, LWDC and man days lost.
3. The retention amount saved will go to a separate Safety Improvement Fund. Division can use this fund for safety intervention project, process improvement, skill development other than L1, L2, L3 training. This retention amount will be auto released as soon as contract will be closed by order manager
4. 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.
5. 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.
6. In case of fatality, limb loss or loss of property, vendor must 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.
7. 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.
8. 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 100%.
9. 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 and apply the Consequence management policy as applicable.
10. Order Manager, divisional chief and SBU head have the authority to terminate the contract in case of three consecutive serious violations.

Appendix 11: CSM- F-11 Safety Performance Score

Sr. No	Parameter	Unit of Measurement	Target	Weight age	Actual Performance	Actual Score
Lead Indicator						
1	% of Employee certified in TPSDI/Authorized agency	Number	100%	20		
2	Monthly inspection completed for Critical Equipment, lifting Tools & Tackles and hand tools used at site <u>by contractor</u>	Number	80%	15		
3	Condition of critical tools, tackles and equipment <u>to</u>	Number	100%	10		

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	<u>be checked by order manager</u>					
<u>4</u>	<u>Safe (designated way) Disposal of Waste generated</u>	-				
<u>5</u>	<u>Records of waste (Hazardous Waste – Oily cotton waste – E- waste etc.) generation</u>			<u>10</u>		
<u>6</u>	<u>No Effluents to drain</u>					
<u>7</u>	<u>No effluents/discharges to ground</u>					
Lag Indicator						
1	Number of Fatalities	No	0	<u>15</u>		
2	Number of Lost workday case (LWDC) (reportable)	No	0	10		
3	<u>Numbers of total reportable cases</u>	<u>No</u>	<u>0</u>	<u>10</u>		
4	Man-days Lost	Man-days	0	10		
					Final Score	
					Invoice Value	
					Amount to be released	

Safety Performance Evaluation Criteria

Lead Indicators

	Target		
% of Employee certified in TPSDI/Authorized agency	50%	100%	Less than 100%
Score		20	Pro-Reta
	Target		
Monthly inspection completed for Critical Equipment, lifting Tools & Tackles and hand	>=80%		79 to 50% <50%

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tools used at site <u>by contractor</u>			
Score	15	7	0
	Target		
Condition of critical tools, tackles and equipment <u>to be checked by order manager</u>	100%	<100%	
Score	10	0	
	Target		
<u>Safe (designated way) Disposal of Waste generated Records of waste (Hazardous Waste – Oily cotton waste – E-waste etc.) generation No effluents/discharges to ground</u>	100%	<100%	
Score	10	0	

Lag Indicators

Number of Fatalities	0	>0	
Score	15		0
Number of LWDC (reportable)	0	>0	
Score	10		0
<u>Numbers of total reportable cases</u>	<u>10</u>		<u>0</u>
<u>Score</u>	<u>0</u>		<u>≥0</u>
Number of man days lost	0	1 to 5	>5
Score	10	5	0

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Appendix 12: CSM-F-12 Safety Potential Evaluation Criteria for Vendor Registration

At the time of vendor registration, vendor will be registered under 3 categories

- 1) **Category A**- Vendors eligible to carry out High risk Jobs
- 2) **Category B**- Vendors eligible to carry out technical jobs that are low risk
- 3) **Category C**- Vendors eligible to carry out administrative and office jobs
- 4) **Category D**- Outsourced Jobs / Consultants /Medical Practitioners / Suppliers etc

For vendors to be registered under **Category A**, a safety potential evaluation will be carried out based on following parameters.

Sr. No	Description			Remarks
		Weight age (%)	Actual Score	
1	Does the contractor have a valid ISO 45001/ OHSAS 18001/ Certification?	30		
2	During site visit check for safety adequacy at site	30		Annexure - 12.1
3	Check the Safety statistics of Contractor	10		Annexure - 12.2
4	Check the Safety orientation & training process of Contractor	15		Annexure 12.3
5	Check the organizational structure for safety professionals & engineers / supervisors.	10		Annexure - 12.4
6	Certified/skilled workers as a percentage of overall workforce	5		
	Total	100		

Evaluation Criteria for Category B

Sr. No	Description			Remarks
		Weight age (%)	Actual Score	

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1	Does the contractor have a valid ISO 9001 certification?	30		
2	During site visit check for safety adequacy at site	30		Annexure -12.1
3	Check the Safety statistics of Contractor	10		Annexure -12.2
4	Check the Safety orientation & training process of Contractor	15		Annexure -12.3
5	Check the organizational structure for safety professionals & engineers / supervisors.	10		Annexure -12.4
6	Certified/skilled workers as a percentage of overall workforce	5		
	Total	100		

Evaluation Criteria for Category C

Sr. No	Description			Remarks
		Weight age (%)	Actual Score	
1	Does the contractor have a valid ISO 9001 certification?	40		
2	Check the Safety statistics of Contractor	40		Annexure - 12.2
3	Check the Safety orientation & training process of Contractor	20		Annexure - 12.3
	Total	100		

Annexure 12.1: Evaluation Criteria for Category D:

Category D does not require any evaluation as it is for outsourced job outside the Tata Power company premise.

Annexure 12.2

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Check List – Adequacy of Safety Statistics of Service Provider				Actual Marks obtained	Remarks
1	Check the safety statistics for last 3 years (LTIFR and LTISR)	Statistics available	Marks 5		
Statistics not available		0			
2	Check the trend LTIFR for last 3 years	LTIFR value	Marks		
0 to 0.2		5			
0.21 to 0.3		2.5			
>0.3		0			
3	Check the trend of LTISR last 3 years	LTISR value	Marks		
0 to 2		5			
2 to 3		2.5			
>3		0			
4	Has there been any Prosecution/Conviction for any contravention with regard to Safety & Health provisions under the Factories Act /Electricity Act/ BOCW Act and Rules framed there under?		Marks		
No Prosecution		10			
Prosecution		0			
To be provided in written on letter head					
	Total	25			

Annexure 12.3

Check List – Adequacy of Safety orientation & training process of Service provider				Actual Marks obtained	
1	Records of safety trainings provided to safety officer/supervisor/workmen during last 1 year as percentage(%) of total employed by service provider	Safety Officer		Marks	
		≥80% of employees		5	
		50 to 79 % of employee		2.5	
		<50%		0	
		Safety Supervisor		Marks	
		≥80% of employees		10	
		50 to 79 % of employee		6	
		<50%		0	
		Workmen		Marks	
		≥80% of employees		10	
		50 to 79 % of employee		6	
		<50%		0	
	Total	25			

Annexure 12.4

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Check List – Adequacy of organizational structure for safety professionals & engineers / supervisors.				Actual Marks obtained
1	Check availability of number of safety officers from government recognized institute as per workforce strength.		Marks	
		1 in 50 employees	10	
		1 in 100 employee	6	
		Any other	0	
3	Check availability of qualified workforce from government recognized institute/TPSDI.		Marks	
		100% of safety officers qualified	5	
		50 – 99% of safety officers qualified	3	
		<50	0	
	Total	15		

Appendix 13: CSM-F-13 Safety Bid Evaluation Criteria.

The User must select whether the job is high risk/ long duration at time of raising the PR.

- 1) The decision whether job is “**high risk**” or not has to be made by order manager based on Risk involved (Risk Priority Number in HIRA) of the Jobs. An indicative list of high-risk jobs is attached as annexure
- 2) If a technical job is of low risk with estimated duration of the contract is 1 year or more the job should be treated as “**long duration**”.
- 3) All Safety bids will be evaluated by Safety Concurrence Group. Structure of SCG will be declared by Corporate safety. Corporate safety team will audit bid evaluation process of a few selected jobs and Quality of evaluated safety Bids.
- 4) Records of jobs sent by for Safety Bid evaluation shall be maintained by Corporate Contract team in existing tracing sheet along with other jobs.
- 5) For Safety Bid Evaluation will be based on following parameters.

		Minimum Requirement	Weight age (%)	Score Obtained
Manpower	Safety Officer (1 per 500 workers)	Qualification- Officer shall possess Advance Diploma In Industrial Safety by state technical board. Experience- Minimum 1-year experience in relevant field as mentioned in the job in PR.	5	
	Safety Supervisor (1 per work site up	Qualification- Supervisor shall possess ITI/ Diploma in relevant field.	5	

	to max. 50 workers)	Experience- Minimum 2-year experience in relevant field as mentioned in the job in PR. Training – Trained and certified by TPSDI or equivalent institute in applicable safety training. Note: On request of the contractor/Users -TPDSI should vet & certify the skilled & experienced Technician if Technical Qualification is not adequate.		
	Technician (Skilled workers as electrician, rigger, fitter, welder, cable jointer, line men etc.)	Experience- Minimum 2-year experience in relevant field as mentioned in the job in PR. Training – Trained and certified by TPSDI or equivalent institute in basic and relevant safety procedures training.	5	
Tools & Tackles	Equipment / Machines/ Tools & Tackles (lifting and shifting tools)	The list of Equipment /Machines / Tools and tackles to be used for job to be submitted by the contractor. Evaluation of the list will be carried out based on 1) Suitability as per the relevant job 2) Make and age of the tools from authorized agencies defined by the user. 3) Certification by the competent authority of respective state.	30	
Safety Records	Safety Records	Safety Records for last 3 years (as per vendor or as per our knowledge) – Recommendation?	15	
Safety Plan	HIRA/Contract Job Safety Plan	Adequacy of HIRA and Job Safety Plan with respect to relevant job. More weight age will be given to vendor for using mechanized work and advanced tools and equipment	20	
Accredited Bodies certificate	ISO-9001	ISO-9001	2	
	ISO-14001	ISO-14001	3	

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	OHSAS 18001 ISO 45000	OHSAS 18001/ISO 45000	15	
		Total Score		

6) Vendor entitled to carry out the job only when qualified for the safety evaluation as follows:

Contractor is qualified in safety bid only if his total score is more than 70% in all category 1 jobs such as high risk/long duration.

7) The Corporate Contract has to ensure that the vendor provides the filled "Safety Competency Form" along with the quotation.

8) Corporate Contract will forward the Safety Competency Form received from the contractor to the Safety Concurrence Group for evaluation.

9) In case SCG wants to visit the site, the Safety Competency will be based on evaluation at the time of site visit Annexure 13.1

Annexure -13.1:

Checklist to be used: During site visit to check the adequacy Safety systems.			
		Observation	Score* (1-5)
1	Check the adequacy of safety policy and Safety Management system of the contractor.		
2	Does the contractor have written down safety procedures?		
3	Check the records of Near miss, unsafe act, unsafe conditions and incidents.		
4	Check the organization setup to implement the safety systems at site (safety officer, safety supervisor)		
5	Check whether safety meeting and toolbox talk carried out regularly and records maintained or not.		
6	Is the process of incident investigation adequate or not?		
7	Verify incident reporting and recording system		
8	Check the usage of equipment/tools and tackles.		
9	Check for housekeeping at site		
10	Check the use of PPEs and general behavior of workforce towards safety		
	Total Score		
	Site Visit Score		

Score*- rating on the scale of 1-5 to be given based on the observations on site. Score of 1 is the lowest and core of 5 is the highest.

Appendix 14: Indicative List of High-Risk Jobs

To access the exhaustive list of High-risk jobs, please refer the following documents

- 1) High Risk Jobs- Generation
- 2) High Risk Jobs- T&D
- 3) High Risk Jobs- Renewable

Indicative List of High-Risk Jobs -Generation Cluster

Sl. No.	Jobs				
1	Demolition / Painting of Chimney				
2	Survey Sounding Jobs in Sea				
3	Dredging at Coal Birth Jetty				
4	Maintenance / Testing and Replacement of Extra High Voltage (132 KV etc.) Switchyard equipment				
5	Maintenance of EOT Cranes				
6	Deep excavation (5 feet or more) near existing buildings /Structure s				
7	Working inside confined spaces (entry through manhole)				
8	Operation Maintenance of elevators				
9	Working on Live control Circuits for identification of faults				
10	Cable laying and termination Jobs				

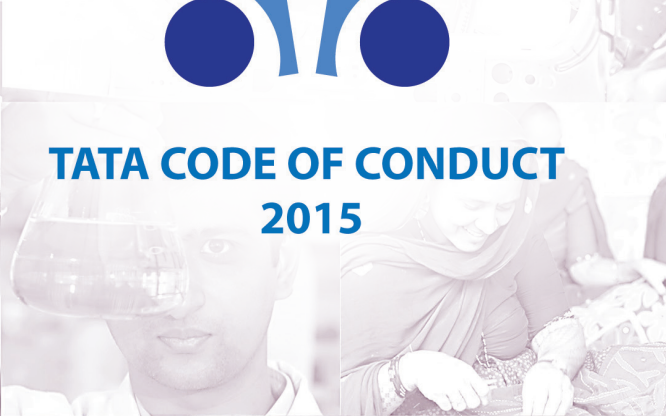
Indicative List of High-Risk Jobs - T&D Cluster

Sl. No.	Jobs				
1	Transmission Line Tower Erection on columns, near live lines, In congested areas, In creeks, In the Sea				
2	Conductor Stringing on Tower Using Tensioner & Puller in the area such as Line Crossing, Near Live lines, Congested Areas, Road Crossing, Bridge Crossing, Railway line Crossing, In creeks ,In the Sea				
3	Cable Pulling by Using winch Machine in City and Rural Areas				
4	Hot Washing of HT and Extra HT lines, Towers and switchyards equipment				
5	Installation of Lifts				
6	Installation of EOT Cranes				
7	Tower Dismantling				
8	Working on H Frame /Pole mounted Transformers				
9	Excavation in operational Area heaving power cables in receiving station				
10	Identification and spiking of cable / disconnection of cables from poles				

Indicative List of High-Risk Jobs - Renewable Cluster

Sl. No.	Jobs				
1	Working on Electrical Panels				
2	Hi Potting of Equipment				

3	Battery commissioning and maintenance					
4	Working on the nasal of Wind Turbine					
5	Working on live electrical switchyard, material Handling and Equipment installation					
6	Roof Top Solar Panels Installation and maintenance					
7	Working in live Electrical Switchyard, Material Handling, equipment installation					
8	All maintenance activities that requires climbing on Towers /Structures / Transformer/ GODs					
9	Loading and Unloading of Solar Panels on trucks					
10	Structural Repair /Dismantling work at height.					



TATA CODE OF CONDUCT 2015



LEADERSHIP THAT INSPIRES

For over 100 years, the Tata group has been led by visionaries who have stayed true to the vision of the founder, Jamsetji Tata.

A vision that placed the greater good of society at par with business growth.

A vision that put into practice pioneering social initiatives that changed the way responsible business was run.

And a vision that brought into the group a strong social conscience.



We do not claim to be more unselfish, more generous or more philanthropic than other people. But we think we started on sound and straightforward business principles, considering the interests of the shareholders our own, and the health and welfare of the employees, the sure foundation of our success.

Jamsetji Tata
Founder of the Tata group
Chairman (1868 – 1904)

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FOREWORD

Tata companies have consistently adhered to the values and ideals articulated by the Founder for over 150 years. The Tata Code of Conduct was first formalized by Mr Ratan Tata. It articulates the Group's values and ideals that guide and govern the conduct of our companies as well as our colleagues in all matters relating to business. Today, the Code is a bedrock on which we base our individual, as well as leadership commitments to core Tata values.

The Tata Code of Conduct outlines our commitment to each of our stakeholders, including the communities in which we operate, and is our guiding light when we are sometimes faced with business dilemmas that leave us at ethical crossroads. The Code is also dynamic in that it has been periodically refreshed in order to remain contemporary and contextual to the changes in law and regulations. However it remains unaltered at its core.

Our stellar reputation and success as a business entity has been defined by the powerful commitment and adherence to the core values and principles expressed in this Code, by all our employees, directors and partners. I trust every Tata colleague and Tata company will continue to not only comply with the laws and regulations that govern our business interests around the world, but will continue to set new standards of ethical conduct that will generate deep respect and inspire emulation by others.

N. Chandrasekaran

21st February, 2017



A. OUR VALUES

TATA has always been values-driven. The five core values that underpin the way we conduct our business activities are:



These universal values serve as the foundation for the Tata Code of Conduct. They find expression within the value system of every Tata company.

B. SCOPE AND PURPOSE OF THIS CODE

1. This Code sets out how we behave with:
 - our employees, or those who work with us;
 - our customers;
 - the communities and the environment in which we operate;
 - our value-chain partners, including suppliers and service providers, distributors, sales representatives, contractors, channel partners, consultants, intermediaries and agents;
 - our joint-venture partners or other business associates;
 - our financial stakeholders;
 - the governments of the countries in which we operate; and
 - our group companies.
2. In this Code, “we or us” means our company, our executive directors, officers, employees and those who work with us, as the context may require.
3. The term “our group companies” in this Code typically means companies Tata Sons intends for this Code to apply to, and / or to whom Tata Sons has issued this Code.
4. This Code sets out our expectations of all those who work with us. We also expect those who deal with us to be aware that this Code underpins everything we do, and in order to work with us they need to act in a manner consistent with it.

REMEMBER...

It is our commitment to protect our reputation and our brand equity by adhering to the values and principles set out in this Code. By doing so, we strengthen our unique culture and identity.

OUR CORE PRINCIPLES



The Tata philosophy of management has always been, and is today more than ever, that corporate enterprises must be managed not merely in the interests of their owners, but equally in those of their employees, of the consumers of their products, of the local community and finally of the country as a whole.

J.R.D. Tata

Chairman, Tata Sons (1938 – 1991)

C. OUR CORE PRINCIPLES

1. We are committed to operating our businesses conforming to the highest moral and ethical standards. We do not tolerate bribery or corruption in any form. This commitment underpins everything that we do.
2. We are committed to good corporate citizenship. We treat social development activities which benefit the communities in which we operate as an integral part of our business plan.
3. We seek to contribute to the economic development of the communities of the countries and regions we operate in, while respecting their culture, norms and heritage. We seek to avoid any project or activity that is detrimental to the wider interests of the communities in which we operate.
4. We shall not compromise safety in the pursuit of commercial advantage. We shall strive to provide a safe, healthy and clean working environment for our employees and all those who work with us.
5. When representing our company, we shall act with professionalism, honesty and integrity, and conform to the highest moral and ethical standards. In the countries we operate in, we shall exhibit culturally appropriate behaviour. Our conduct shall be fair and transparent and be perceived as fair and transparent by third parties.
6. We shall respect the human rights and dignity of all our stakeholders.
7. We shall strive to balance the interests of our stakeholders, treating each of them fairly and avoiding unfair discrimination of any kind.
8. The statements that we make to our stakeholders shall be truthful and made in good faith.
9. We shall not engage in any restrictive or unfair trade practices.
10. We shall provide avenues for our stakeholders to raise concerns or queries in good faith, or report instances of actual or perceived violations of our Code.
11. We shall strive to create an environment free from fear of retribution to deal with concerns that are raised or cases reported in good faith. No one shall be punished or made to suffer for raising concerns or making disclosures in good faith or in the public interest.
12. We expect the leaders of our businesses to demonstrate their commitment to the ethical standards set out in this Code through their own behaviour and by establishing appropriate processes within their companies.
13. We shall comply with the laws of the countries in which we operate and any other laws which apply to us. With regard to those provisions of the Code that are explicitly dealt with under an applicable law or employment terms, the law and those terms shall take precedence. In the event that the standards prescribed under any applicable law are lower than that of the Code, we shall conduct ourselves as per the provisions of the Code.

REMEMBER...

“Good faith” means having a reasonable belief that the information you have provided is truthful. It does not mean having ‘all the evidence’ about the potential violation or case reported.

OUR EMPLOYEES



Once you got the best people, the people who shared our values and ideals, we left them free to act on their own. We do not fetter them. We encourage them and give them opportunities for leadership.

J.R.D. Tata

Chairman, Tata Sons (1938 – 1991)

D. OUR EMPLOYEES

Equal opportunity employer

1. We provide equal opportunities to all our employees and to all eligible applicants for employment in our company. We do not unfairly discriminate on any ground, including race, caste, religion, colour, ancestry, marital status, gender, sexual orientation, age, nationality, ethnic origin, disability or any other category protected by applicable law.
2. When recruiting, developing and promoting our employees, our decisions will be based solely on performance, merit, competence and potential.
3. We shall have fair, transparent and clear employee policies which promote diversity and equality, in accordance with applicable law and other provisions of this Code. These policies shall provide for clear terms of employment, training, development and performance management.

Q&A

A job requirement entails extensive travel. One of the candidates has excellent relevant experience and qualifications. However, this candidate is a single parent. As a result, I feel such a situation would significantly hinder this candidate's ability to cope with the job requirement. What should I do?

In accordance with the Code, the decision to recruit an employee should be based upon merit. We cannot make a presumption that the candidate would not be able to meet the travel requirements of the job. All eligible candidates should be provided with equal opportunity to demonstrate or justify that they can cope with the travel requirements of the job. Being a single parent cannot be a ground to be discriminated against at any stage of recruitment or ongoing employment in our company.

REMEMBER...

We do not tolerate harassment in any form and therefore we expect every employee to discourage such misdemeanours in the workplace.

Dignity and respect

4. Our leaders shall be responsible for creating a conducive work environment built on tolerance, understanding, mutual cooperation and respect for individual privacy.
5. Everyone in our work environment must be treated with dignity and respect. We do not tolerate any form of harassment, whether sexual, physical, verbal or psychological.
6. We have clear and fair disciplinary procedures, which necessarily include an employee's right to be heard.
7. We respect our employees' right to privacy. We have no concern with their conduct outside our work environment, unless such conduct impairs their work performance, creates conflicts of interest or adversely affects our reputation or business interests.

Human rights

8. We do not employ children at our workplaces.
9. We do not use forced labour in any form. We do not confiscate personal documents of our employees, or force them to make any payment to us or to anyone else in order to secure employment with us, or to work with us.

Bribery and corruption

10. Our employees and those representing us, including agents and intermediaries, shall not, directly or indirectly, offer or receive any illegal or improper payments or comparable benefits that are intended or perceived to obtain undue favours for the conduct of our business.

REMEMBER...

Violation by even a single employee of any law relating to anti-bribery, anti-corruption, anti-competition, data privacy, etc. could result in severe financial penalties and cause irreparable reputational damage to the company.

Gifts and hospitality

11. Business gifts and hospitality are sometimes used in the normal course of business activity. However, if offers of gifts or hospitality (including entertainment or travel) are frequent or of substantial value, they may create the perception of, or an actual conflict of interest or an 'illicit payment'. Therefore, gifts and hospitality given or received should be modest in value and appropriate, and in compliance with our company's gifts and hospitality policy.

Freedom of association

12. We recognise that employees may be interested in joining associations or involving themselves in civic or public affairs in their personal capacities, provided such activities do not create an actual or potential conflict with the interests of our company. Our employees must notify and seek prior approval for any such activity as per the 'Conflicts of Interest' clause of this Code and in accordance with applicable company policies and law.

REMEMBER...

As a general rule, we may accept gifts or hospitality from a business associate, only if such a gift:

- has modest value and does not create a perception (or an implied obligation) that the giver is entitled to preferential treatment of any kind;
- would not influence, or appear to influence, our ability to act in the best interest of our company;
- would not embarrass our company or the giver if disclosed publicly.

The following gifts are never appropriate and should never be given or accepted:

- gifts of cash or gold or other precious metals, gems or stones;
- gifts that are prohibited under applicable law;
- gifts in the nature of a bribe, payoff, kickback or facilitation payment*;
- gifts that are prohibited by the gift giver's or recipient's organisation; and
- gifts in the form of services or other non-cash benefits (e.g. a promise of employment).

(* 'Facilitation' payment is a payment made to secure or speed up routine legal government actions, such as issuing permits or releasing goods held in customs.)

Working outside employment with us

13. Taking employment, accepting a position of responsibility or running a business outside employment with our company, in your own time, with or without remuneration, could interfere with your ability to work effectively at our company or create conflicts of interest. Any such activity must not be with any customer, supplier, distributor or competitor of our company. Our employees must notify and seek prior approval for any such activity as per the 'Conflicts of Interest' clause of this Code and in accordance with applicable company policies and law.

Integrity of information and assets

14. Our employees shall not make any wilful omissions or material misrepresentation that would compromise the integrity of our records, internal or external communications and reports, including the financial statements.
15. Our employees and directors shall seek proper authorisation prior to disclosing company or business-related information, and such disclosures shall be made in accordance with our company's media and communication policy. This includes disclosures through any forum or media, including through social media.
16. Our employees shall ensure the integrity of personal data or information provided by them to our company. We shall safeguard the privacy of all such data or information given to us in accordance with applicable company policies or law.
17. Our employees shall respect and protect all confidential information and intellectual property of our company.
18. Our employees shall safeguard the confidentiality of all third party intellectual property and data. Our employees shall not misuse such intellectual property and data that comes into their possession and shall not share it with anyone, except in accordance with applicable company policies or law.
19. Our employees shall promptly report the loss, theft or destruction of any confidential information or intellectual property and data of our company or that of any third party.

Q&A

I am an accountant in the finance department of my company. Due to my artistic skills, I received an offer to pen cartoons for a children's publication for which I would receive compensation. I plan to undertake this activity during week-ends. What should I do before accepting this offer?

Before accepting the offer, you should ascertain whether the company policies and rules require you to make a disclosure to your supervisor so that the company may determine whether your undertaking this activity adversely affects our company's interests. On confirmation from the company that it does not do so, you would be free to take up the activity. It is also your duty to bring to the attention of the company whenever there is any change in the situation you have disclosed.

20. Our employees shall use all company assets, tangible and intangible, including computer and communication equipment, for the purpose for which they are provided and in order to conduct our business. Such assets shall not be misused. We shall establish processes to minimise the risk of fraud, and misappropriation or misuse of our assets.
21. We shall comply with all applicable anti-money laundering, anti-fraud and anti-corruption laws and we shall establish processes to check for and prevent any breaches of such laws.

Insider trading

22. Our employees must not indulge in any form of insider trading nor assist others, including immediate family, friends or business associates, to derive any benefit from access to and possession of price sensitive information that is not in the public domain. Such information would include information about our company, our group companies, our clients and our suppliers.

Q&A

Our company has recently announced the launch of a new business initiative. In connection with this, your friend who is a journalist with a leading business newspaper has asked you to provide some information that he could cover in his forthcoming article. He has promised not to quote you, or reveal your identity. Should you be giving him this information?

No. You should not be sharing information of this nature with the media, even if it is assured that the source would remain anonymous. Only authorised personnel in the company are permitted to speak to the media and provide information of this nature.

Our company has a “Use of Social Media” policy that lays down the “dos and don’ts” for use of social media even if you may access such media on your own time. Why is there such a policy?

External communication is a serious matter. It must be carefully managed because information put out with reference to our company or its businesses needs to be clear, truthful and not violate any undertakings we have given to other parties. In each business there are managers nominated to authorise and make different types of statements to the outside world. These managers should be consulted about any request for information you may receive or information you think we should give out.

In using social media, in particular blogs or social networking sites, you should exercise great caution while talking about our company or the business we do. It may feel like you are chatting with friends or expressing a personal opinion but even while doing so you cannot share any confidential information of our company.

REMEMBER...

We must respect the property rights of others by never misusing their assets, intellectual property or trade secrets, including the copying or downloading of unauthorised software, trademarks, copyrighted material or logos. We should never make unauthorised copies of computer software programs or use unlicensed personal software on company computers.

Prohibited drugs and substances

23. Use of prohibited drugs and substances creates genuine safety and other risks at our workplaces. We do not tolerate prohibited drugs and substances from being possessed, consumed or distributed at our workplaces, or in the course of company duties.

Conflicts of interest

24. Our employees and executive directors shall always act in the interest of our company and ensure that any business or personal association *including close personal relationships* which they may have, does not create a conflict of interest with their roles and duties in our company or the operations of our company. Further, our employees and executive directors shall not engage in any business, relationship or activity, which might conflict with the interest of our company or our group companies.

25. Should any actual or potential conflicts of interest arise, the concerned person must immediately report such conflicts and seek approvals as required by applicable law and company policy. The competent authority shall revert to the employee within a reasonable time as defined in our company's policy, so as to enable the concerned employee to take necessary action as advised to resolve or avoid the conflict in an expeditious manner.
26. In the case of all employees other than executive directors, the Chief Executive Officer / Managing Director shall be the competent authority, who in turn shall report such cases to the Board of Directors on a quarterly basis. In case of the Chief Executive Officer / Managing Director and executive directors, the Board of Directors of our company shall be the competent authority.

Q&A

You are responsible for maintaining our company's customer database. One of your friends is starting a business venture and requests you to share a few particulars from this database for marketing purposes of his business. He assures you that he would keep the data as well as his source confidential. Should you do so?

No. You should respect the confidentiality of customer information and not share any part of the database with any person without due authorisation.

You have access to revenue numbers of different business units of our company. While having a conversation with you over evening drinks, your friend enquires about the financial performance of our company. You do not share detailed information with your friend, but share approximate revenue figures. Is this conduct of yours correct?

No, it is not. You are not permitted to share financial information of our company with others who do not need to know this information. Financial information should always be safeguarded and disclosed only on a need-to-know basis after obtaining requisite approvals. Sharing of any price sensitive information that is not generally available with the public could also lead to violation of applicable insider trading laws.

27. Notwithstanding such or any other instance of conflict of interest that exists due to historical reasons, adequate and full disclosure by interested employees shall be made to our company's management. At the time of appointment in our company, our employees and executive directors shall make full disclosure to the competent authority, of any interest leading to an

actual or potential conflict that such persons or their immediate family (including parents, siblings, spouse, partner, children) or persons with whom they enjoy close personal relationships, may have in a family business or a company or firm that is a competitor, supplier, customer or distributor of, or has other business dealings with, our company.

REMEMBER...

A conflict of interest could be any known activity, transaction, relationship or service engaged in by an employee, his/her immediate family (including parents, siblings, spouse, partner, and children), relatives or a close personal relationship, which may cause concern (based upon an objective determination) that the employee could not or might not be able to fairly perform his/her duties to our company.

Examples of Potential Conflicts of Interest

A conflict of interest, actual or potential, arises where, directly or indirectly, an employee or executive director:

- (a) engages in a business, activity or relationship with anyone who is party to a transaction with our company;
- (b) is in a position to derive an improper benefit, personally or for any family member or for any person in a close personal relationship, by making or influencing decisions relating to any transaction;
- (c) conducts business on behalf of our company or is in a position to influence a decision with regard to our company's business with a supplier or customer where a relative of, or a person in close personal relationship with, an employee or executive director is a principal officer or representative, resulting in a personal benefit or a benefit to the relative;
- (d) is in a position to influence decisions with regard to award of benefits such as increase in salary or other remuneration, posting, promotion or recruitment of a relative or a person in close personal relationship employed in our company or any of our group companies;
- (e) undertakes an activity by which the interest of our company or our group companies can be compromised or defeated; or
- (f) does anything by which an independent judgement of our company's or our group companies' best interest cannot be exercised.

28. If there is a failure to make the required disclosure and our management becomes aware of an instance of conflict of interest that ought to have been disclosed by an employee or executive director, our management shall take a serious view of the

matter and consider suitable disciplinary action as per the terms of employment. In all such matters, we shall follow clear and fair disciplinary procedures, respecting the employee's right to be heard.

Examples of activities normally approved (post-disclosure) as per applicable company policy

Acceptance of a position of responsibility (whether for remuneration or otherwise) in the following cases would typically be permitted, provided the time commitments these demand do not disturb or distract from the employee's primary duties and responsibilities in our company, and are promptly disclosed to the relevant competent authority:

- (a) Directorships on the Boards of any of our group companies, joint ventures or associate companies.
- (b) Memberships/positions of responsibility in educational/professional bodies, where such association will promote the interests of our company.
- (c) Memberships or participation in government committees/bodies or organisations.

Q&A

You are in a relationship with a colleague who has been recently moved into your team and would now be reporting to you. What should you do?

Romantic or close personal relationships with another employee where a reporting relationship exists and one is responsible for evaluating the other's performance, is likely to create a conflict of interest. In such a situation, you would need to report the potential conflict to your supervisor.

Your company is submitting a proposal to a company in which you were previously employed. You have confidential information pertaining to your previous employer, which you believe will help your present employer in winning the contract. Should you share this information?

No. You should not share this information with your company since it relates to confidential information of a third party. Your company respects its employees' duty to protect confidential information that they may have relating to their previous employers.

You are the purchasing manager in the procurement department of your company. You receive an invitation from a supplier to attend a premier sporting event as her guest. This particular supplier is one of the vendors who has submitted a proposal for an open tender issued by your company. Should you accept the invitation?

No. You should not accept the invitation in this instance. Since you are in a key decision-making role for the tender, any unusual benefit that you receive could be perceived as an inducement that could compromise your objectivity.

OUR CUSTOMERS



We have continued to enjoy prosperity, even with adverse times to fight against. Our relations with all concerned are the most friendly. We have maintained the same character for straight-forward dealing with our constituents and customers. Our productions have continued to be of the same high quality, and therefore command the best reputation and realise the highest prices. ... I mention these facts only to point out that with honest and straight-forward business principles, close and careful attention to details, and the ability to take advantage of favourable opportunities and circumstances, there is a scope for success.

Jamsetji Tata

Founder of the Tata group
Chairman, Tata Sons (1868 – 1904)

E. OUR CUSTOMERS

Products and services

1. We are committed to supplying products and services of world-class quality that meet all applicable standards.
2. The products and services we offer shall comply with applicable laws, including product packaging, labelling and after-sales service obligations.
3. We shall market our products and services on their own merits and not make unfair or misleading statements about the products and services of our competitors.

Export controls and trade sanctions

4. We shall comply with all relevant export controls or trade sanctions in the course of our business.

Fair competition

5. We support the development and operation of competitive open markets and the liberalisation of trade and investment in each country and market in which we operate.
6. We shall not enter into any activity constituting anti-competitive behaviour such as abuse of market dominance, collusion, participation in cartels or inappropriate exchange of information with competitors.
7. We collect competitive information only in the normal course of business and obtain the same through legally permitted sources and means.

Dealings with customers

8. Our dealings with our customers shall be professional, fair and transparent.
9. We respect our customers' right to privacy in relation to their personal data. We shall safeguard our customers' personal data, in accordance with applicable law.

Q&A

You are the Regional Sales Manager of our company. You have become a member of an “informal group”, on an instant messaging service, whose members are the regional sales heads of our company’s competitors. The administrator of the group has requested an in-person meeting to informally discuss market conditions and brainstorm on “pricing strategy” from an industry perspective. What should you do?

Any meeting with competitors, especially to discuss “pricing strategy”, could be an attempt to promote an anti-competitive practice or manipulate prices. You should respond by declining this invitation and exiting the “informal group”. You should also report this incident to your supervisor and your Legal department.

You are attending a customer meeting with a colleague, and your colleague makes an untruthful statement about the company’s services. What should you do?

You should assist your colleague in correcting the inaccuracy during the meeting if possible. If this is not possible, raise the issue with your colleague after the meeting to enable him/her or the company to correct any misrepresentation made to the customer.

While working on a customer project, you receive a call from your colleague. He used to manage that customer account before you took over his role. He recalls that he had worked with the customer on developing a new ordering system which he thinks would be beneficial for another customer and requests you to send him the project details. What should you do?

You must not share this information without specific approval of the customer; you are not permitted to use a customer’s assets, including software, for another customer or for any personal use.

REMEMBER...

Striving for excellence in the standards of our work and in the quality of our goods and services is a core Tata value. It is the unwavering practice of this value that builds and sustains customer trust in our brand.

OUR COMMUNITIES AND THE ENVIRONMENT



In a free enterprise, the community is not just another shareholder in business but is in fact the very purpose of its existence.

Jamsetji Tata

Founder of the Tata group
Chairman, Tata Sons (1868 – 1904)

F. OUR COMMUNITIES AND THE ENVIRONMENT

Communities

1. We are committed to good corporate citizenship, and shall actively assist in the improvement of the quality of life of the people in the communities in which we operate.
2. We engage with the community and other stakeholders to minimise any adverse impact that our business operations may have on the local community and the environment.
3. We encourage our workforce to volunteer on projects that benefit the communities in which we operate, provided the principles of this Code, where applicable, and in particular the 'Conflicts of Interest' clause are followed.

The environment

4. In the production and sale of our products and services, we strive for environmental sustainability and comply with all applicable laws and regulations.
5. We seek to prevent the wasteful use of natural resources and are committed to improving the environment, particularly with regard to the emission of greenhouse gases, consumption of water and energy, and the management of waste and hazardous materials. We shall endeavour to offset the effect of climate change in our activities.

OUR VALUE-CHAIN PARTNERS



If we had done some of the things that some other groups have done, we would have been twice as big as we are today.
But we didn't, and I would not have it any other way.

J.R.D. Tata

Chairman, Tata Sons (1938 – 1991)

(on the pace of expansion of the Tata group in the 1960s and 70s)

G. OUR VALUE-CHAIN PARTNERS

1. We shall select our suppliers and service providers fairly and transparently.
2. 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.
3. Our suppliers and service providers shall represent our company only with duly authorised 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.
4. 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.
5. We respect our obligations on the use of third party intellectual property and data.

Q&A

You head the procurement function in our company. You have tight budgetary constraints for a project that you are working on. In order to complete the project within the targeted costs, you intend to request your supplier to provide you an exceptional discount on this project order on the understanding that you would "make it up to him" in future orders. Would you be violating the Code?

Yes, you would. Inducement in any form, including future benefits to the supplier, could compromise your ability to act objectively and in the best interests of the company and therefore must be avoided.

REMEMBER...

Our value-chain partners would include our suppliers and service providers, distributors, sales representatives, contractors, channel partners, consultants, intermediaries and agents; joint-venture partners and other business associates.

OUR FINANCIAL STAKEHOLDERS



Ethical behaviour in business – in every sphere and with all constituents – has been the bedrock on which the Tata group has built, and operates, its enterprises. This has been an article of faith for the group ever since its inception, a fundamental element of our cherished heritage and the essence of our way of life.

Ratan Tata

Chairman, Tata Sons (1991 – 2012)

H. OUR FINANCIAL STAKEHOLDERS

1. We are committed to enhancing shareholder value and complying with laws and regulations that govern shareholder rights.
 2. We shall inform our financial stakeholders about relevant aspects of our business in a fair, accurate and timely manner and shall disclose such information in accordance with applicable law and agreements.
 3. We shall keep accurate records of our activities and shall adhere to disclosure standards in accordance with applicable law and industry standards.
-

GOVERNMENTS



Business, as I have seen it, places one great demand on you; it needs you to impose a framework of ethics, values, fairness and objectivity on yourself at all times. It is not easy to do this; you cannot impose it on yourself forcibly because it has to become an integral part of you.

Ratan Tata

Chairman, Tata Sons (1991 – 2012)

I. GOVERNMENTS

Political non-alignment

1. We shall act in accordance with the constitution and governance systems of the countries in which we operate. We do not seek to influence the outcome of public elections, nor to undermine or alter any system of government. We do not support any specific political party or candidate for political office. Our conduct must preclude any activity that could be interpreted as mutual dependence/favour with any political body or person, and we do not offer or give any company funds or property or other resources as donations to any specific political party, candidate or campaign.

Any financial contributions considered by our Board of Directors in order to strengthen democratic forces through a clean electoral process shall be extended only through the Progressive Electoral Trust in India, or by a similar transparent, duly-authorised, non-discriminatory and non-discretionary vehicle outside India.

Government engagement

2. We engage with the government and regulators in a constructive manner in order to promote good governance. We conduct our interactions with them in a manner consistent with our Code.
3. We do not impede, obstruct or improperly influence the conclusions of, or affect the integrity or availability of data or documents for any government review or investigation.

OUR GROUP COMPANIES



I do not think anyone was on par with Jamsetji as an industrial visionary. But that is not the sole reason why I have been an admirer of Jamsetji. The major reason was his sense of values, sterling values, which he imparted to this group. If someone were to ask me, what holds the Tata companies together, more than anything else, I would say it is our shared ideals and values which we have inherited from Jamsetji Tata.

J.R.D. Tata

Chairman, Tata Sons (1938 – 1991)

J. OUR GROUP COMPANIES

1. We seek to cooperate with our group companies, including joint ventures, by sharing knowledge, physical resources, human and management resources and adopting leading governance policies and practices in accordance with applicable law including adherence to competition law, where relevant.
2. We shall strive to achieve amicable resolution of any dispute between us and any of our group companies, through an appropriate dispute resolution mechanism so that it does not adversely affect our business interests and stakeholder value.
3. We shall have processes in place to ensure that no third party or joint venture uses the TATA name/brand to further its interests without proper authorisation.
4. Our Board of Directors shall consider for adoption policies and guidelines periodically formulated by Tata Sons and circulated to group companies.

Q&A

You are in the process of selecting potential vendors for an IT project in our company. In the final shortlist of two companies, one is a new start-up with limited references and a lower price-quotation, while the other is a Tata company with thirty years of implementation experience and good references, but a marginally higher quote for the same job. With all other parameters of choice being nearly equal, which company should you select for the job?

While price is undoubtedly an important criterion for decision making, it is clearly not the only one to be evaluated. You may also need to consider good customer references, proven track record and shared value systems in order to decide on your IT partner.

You are in the process of selecting potential vendors for a project. One of the three finalists is a group company. In reviewing the final proposals, you rank the group company second out of the three proposals based on pricing and total cost of ownership, and select the first-ranked vendor. Is this the right decision?

Yes. You should select the vendor that, on its own merits, is the vendor that is most appropriate for your company's requirements. You should not select a group company only because of its affiliation.

RAISING CONCERNS

We encourage our employees, customers, suppliers and other stakeholders to raise concerns or make disclosures when they become aware of any actual or potential violation of our Code, policies or law. We also encourage reporting of any event (actual or potential) of misconduct that is not reflective of our values and principles.

Avenues available for raising concerns or queries or reporting cases could include:

- immediate line manager or the Human Resources department of our company
- designated ethics officials of our company
- the 'confidential reporting' third party ethics helpline (if available)
- any other reporting channel set out in our company's 'Whistleblower' policy.

We do not tolerate any form of retaliation against anyone reporting legitimate concerns. Anyone involved in targeting such a person will be subject to disciplinary action.

If you suspect that you or someone you know has been subjected to retaliation for raising a concern or for reporting a case, we encourage you to promptly contact your line manager, the company's Ethics Counsellor, the Human Resources department, the MD/CEO or the office of the group's Chief Ethics Officer.

Q&A

My supervisor has asked me to do something which I believe may be illegal. I am afraid if I do not do what I am told, I could lose my job. Should I do it?

No. Breaking the law is never an option. Discuss the situation with your supervisor to be certain that you both understand the facts. If your concerns are not resolved, contact a higher level supervisor, the Ethics Counsellor, the Legal department or report them via the company's confidential reporting system, if available.

I feel that my supervisor is treating me unfairly for reporting a concern to the Ethics Counsellor. What should I do?

Retaliation against anyone who raises a concern is a violation of the Code. You should therefore promptly report this action of your supervisor to the Ethics Counsellor or the MD/CEO of your company or via the company's confidential reporting system, if available.

ACCOUNTABILITY

This Code is more than a set of prescriptive guidelines issued solely for the purpose of formal compliance. It represents our collective commitment to our value system and to our core principles.

Every person employed by us, directly or indirectly, should expect to be held accountable for his/her behaviour. Should such behaviour violate this Code,

they may be subject to action according to their employment terms and relevant company policies.

When followed in letter and in spirit, this Code is *'lived'* by our employees as well as those who work with us. It represents our shared responsibility to all our stakeholders, and our mutual commitment to each other.

SPEAK UP...

If you are unsure whether a particular action you are about to take is consistent with the principles set forth in the Code, ask yourself:

- Could it directly or indirectly endanger someone or cause them injury?
- Is it illegal/unlawful or out of line with our policies and procedures?
- Does my conscience reject it? Does it conflict with my personal values?
- Would I feel uncomfortable if the story appeared in the media? Would it shame my company, spouse, partner, parent or child?
- Does it 'feel' wrong?

If the answer to any of these questions is "Yes", please stop and consult your reporting manager, the Ethics Counsellor, the Human Resource department, the Legal department or any member of the senior management team, to assist you in making the decision.

When faced with a dilemma: Stop, Think, Act Responsibly

NOTE

The Code does not provide a comprehensive and complete explanation of all expectations from a company standpoint or obligations from a stakeholder standpoint.

Our employees have a continuing obligation to familiarise themselves with all applicable law, group-level advisories and policies, company-level policies, procedures and work rules as relevant. For any guidance on interpretation of the Code, we may seek support from our company's Ethics Counsellor or from the group's Chief Ethics Officer, as appropriate.

All joint ventures are encouraged to adopt the Tata Code of Conduct (TCOC) or a code of conduct that incorporates all elements of the TCOC.

This version of the Tata Code of Conduct supersedes all earlier versions and associated documents and stands effective from 29th July, 2015.

For any query or clarification on the Code, please contact the office of the group's Chief Ethics Officer via email at: ethicsoffice@tata.com.

TATA CODE OF CONDUCT – 2015

I acknowledge that I have received the Tata Code of Conduct.

I have read the Tata Code of Conduct and I acknowledge that as a Tata employee, I am required to comply with the guidelines described therein and failure to do so may subject me to action as per my employment terms and relevant company policies.

If I have a concern about a violation, or a potential violation of the Tata Code of Conduct, I understand that there are channels available to me in my company to report such concerns. By making use of these channels when necessary, I will play my part in maintaining the high ethical standards to which we hold ourselves.

Signature: _____

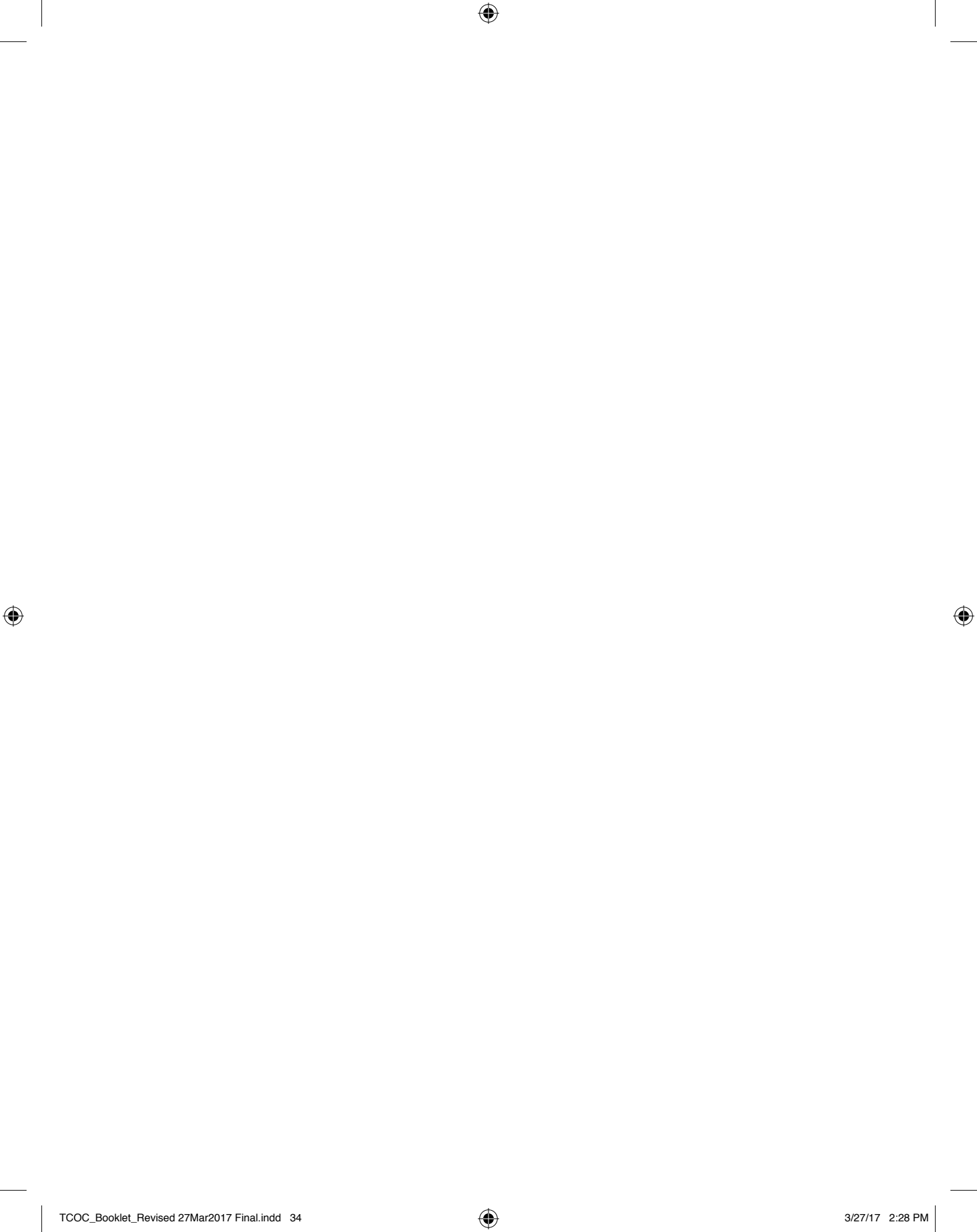
Date: _____

Name: _____

Department: _____

Address: _____

(Please submit this declaration to your Ethics Counsellor or the Human Resource department of your company.)



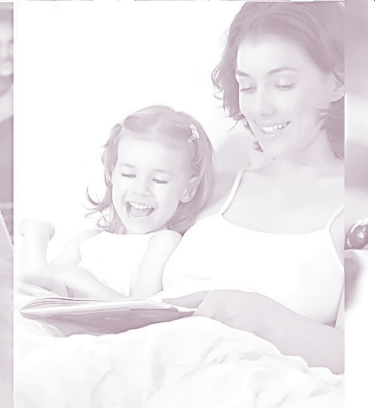


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NOTES

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For further information on the Code please contact:
The Ethics Office,
Tata Sons Ltd.,
Bombay House,
24, Homi Mody Street,
Mumbai – 400001, India.
Email: ethicsoffice@tata.com

CORPORATE ENVIRONMENT POLICY

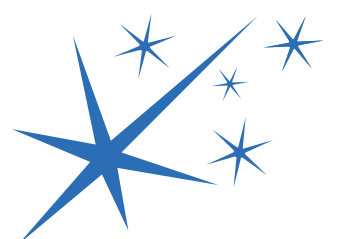
Tata Power is committed to a clean, safe and healthy environment, and we shall operate our facilities in an environmentally sensitive and responsible manner. Our commitment to environmental protection and stewardship will be achieved by:

- 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: 15th June, 2018



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

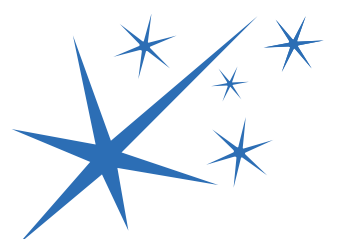
- We will uphold the values of honesty, partnership and fairness in our relationship with stakeholders
- We shall provide and maintain a clean, healthy and safe working environment for employees, customers, partners and the community
- We will strive to consistently enhance our value proposition to the 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: 15th June, 2018



Annexure- AA***(To be submitted by Associates)*****Criteria for Separate Safety Bid**

Separate Safety bid is applicable for contract value \geq 1Cr for a duration more than 6 months having major services jobs where high risk critical activities like working at height (more than 1.8 meter from ground), working on our networks under live or dead conditions, laying of new networks and working through heavy equipment's like Crane etc.

The main jobs under above categories are as follows:

1. Zonal AMC Contract
2. Distribution Project Contract
3. EHV Project Contracts
4. STS Line/Grids AMC Contracts
5. Meter Installation contract
6. Civil Works
7. Street Lighting works/AMC Contracts
8. Any other contract deemed fit under above cited conditions

Safety Competency Form

Bidder Name: -

Tender Description: -

Tender No.: -

Rfx No: -

Bidder to mandatorily provide the below safety competency related information.

1. Proposed Manpower Deployment Schedule : -

Category of manpower deployed	Min. Qualification	Experience (Years)	Proposed Number at each location					
			City Circle	Berham pur Circle	Bhanja nagar Circle	Aska Circle	Jeypore Circle	Rayag ada Circle
Project Manager								
Site In Charge								
Safety Engineer								
Supervisors								
Lineman								
Helpers								
Drivers								

Bidders to provide the overall site manpower deployment as above. Separate Sheet can be attached for providing complete details

2. List of Tools, Tackles & Equipments :-

Bidder/Vendor to provide the list of tools, tackles, equipments to be used during the job/ project execution. Bidder/Vendor to ensure that all the lifting tools and tackles, power tools like welding set, gas cutter etc. duly verified by EIC.

Sr. No.	Description of Tools / Tackles	Capacity / Rating	Quantity	Make	Remarks
1					
2					
3					
4					
5					
6					
7					
...					

Bidders to ensure that all tools and tackles are provided as per specifications and requirement of TPSODL. Bidders to change the tools, tackles and equipments if there is any change in specifications after award of contract. Separate List can be attached as per above format.

3. Safety Records:

Bidder to provide the details of fatalities and lost work day cases (LWDC) which may happened during the last three years (data to be provided for the last completed year and preceding 2 years) in TPSODL and other than TPSODL as per below format.

Description	Safety Data for Last 3 Years (TPSODL)		
	Year 1	Year 2	Year 3
	2015	2016	2017
Fatalities (Nos.)			
Lost Work Day Cases (Non Fatal Nos.)			

Description	Safety Data for Last 3 Years (Other than TPSODL)		
	Year 1	Year 2	Year 3
	2015	2016	2017
Fatalities (Nos.)			
Lost Work Day Cases (Non fatal Nos.)			

In case of no fatalities, LWDC during any year, the form may be filled stating NIL against the respective year. Bidders are encouraged to provide the learning's implemented out of the above reported incident.

4. Job Safety Plan/ Method Statement:

Bidder to provide / enclose a detailed Site/Job Safety Plan along with a Method statement detailing the execution philosophy (how the bidder intends to execute the Job/Project), identifying all key activities which are required to be performed by the contractor at Site. Bidder to also list

down all high-risk activities and provide the Hazard Identification and Risk Assessment (HIRA) for all such high-risk activities involved in the site work.

5. PPE Requirements:

TPSODL Requirement	Bidders Response
The Bidder/Vendor shall ensure that all PPE of Approved standards as per Annexure No. 7 of CSM (GCC), shall be available at all time and shall be used by his employees with no exception whatsoever. Bidders to also ensure TPSODL Standard PPE matrix to be followed for all activities.	
10% Buffer stock of PPEs to be provided by bidders at each locations to meet any contingency	
Bidder will ensure that sample PPEs to be submitted/approved by Safety Department along with EIC at the time of submission of Safety bids for evaluation In case bidder manpower found using substandard or any PPEs which are not approved from TPSODL, then TPSODL will provide the same to manpower deployed at the cost of bidders.	

6. Vehicle Deployment: Bidders to provide details of all vehicles deployed during execution of work

S. No.	Vehicle No.	Vehicle Type	Location	CNG/Diesel/Petrol	Year	Whether CNG endorsed on RC

7. Crane Deployment: Bidders to provide details of crane to be deployed during the execution of work as and when required. Bidders to provide the TPSODL Approved new gen hydra crane ACE Model SX150, ACE FX150 and Escorts Model TRX 1550.

S. No.	Crane No.	Location	Year

8. Training Records: Bidders to provide training records of employees deployed for the execution of work during last one year. These training includes OHS (Occupational Health and Safety) Training, Training on SOP/Work Procedures and Medical Emergency trainings imparted at their own facility, cost and expenses. Bidders to provide the following details:

TPSODL Requirement	Bidders Response
Training records of employees at their own facility, cost and expenses for last one year	
Training facility available with Bidders	
Future road map for enhancing the competency of workforce	

9. Rewards and Recognition: Bidders to provide the details of process deployed in their organization for sharing and resolution of safety concerns raised by their employees. Also bidders to provide the details of Rewards and Recognition process in their organization for safety to encourage the morale of their workforce.

10. Accreditations:

S. No.	Certification	Yes / No	If Yes, Year of Certification	If No, Planned date for Certification
1.	ISO 9001			
2.	OSHAS 18001/ISO 450001			
3.	SA8000			

Note: Please attach certificates to support above. In case not accredited for above but applied for, application letters may be attached.

Evaluation Criteria

S. No.	Description	Max Marks	Criteria for evaluation
1.	Qualification and Experience of manpower	15	As per Clause No. 5
2.	Tools and Tackles to be provided by bidder	20	To be evaluated as per approved tool list of concerned departments.

3.	Job Safety Plan/ Method	15	To be evaluated as per as per SOP/WI/HIRA adequacy of TPSODL
4	PPE Requirements	20	To be evaluated as per approved TPSODL PPEs standard and PPE Matrix specified in CSM
5	Vehicle Deployment	10	Weightage will be given for CNG Vehicles with endorsement of CNG kit on RC
6	Crane Deployment	10	Weightage will be given for CNG Vehicles with endorsement of CNG kit on RC
7	Training Records	10	Training records to be evaluated with evidences and scoring to be done as per availability of records
Total		100	

Safety Records (Lag Parameter)

1.	Fatal Accident	(-) 20 Marks	<p>For any fatality in TPSODL /Other company in last three years, 20 marks will be deducted.</p> <p>For new entrant BA, these marks will be deducted for safety records other than TPSODL works.</p> <p>If and BA found hiding such facts, then contract will be terminated immediately during the execution stage.</p>
2	LWDC (Non-fatal)	(-) 10 Marks for each case with max of 20 marks	<p>For each LWDC (Non-Fatal) case 10 marks will be deducted with maximum up to 20 marks.</p> <p>For new entrant BA, these marks will be deducted for safety records other than TPSODL works.</p> <p>If and BA found hiding such facts, then contract will be terminated immediately during the execution stage.</p>

Additional Bonus Points

1	Certificate Accreditation	(+) Max 10 Marks	<p>ISO 9001- 5 Marks Bonus</p> <p>OSHAS 18001/ISO 450001- 5 Marks Bonus</p> <p>SA8000- 5 Marks Bonus</p>
2	Safety Initiative for learnings implemented in accidents in organization	(+) Max 10 Marks	Maximum 10 marks will be awarded for visible evidence in terms of safety initiative deployed based on learning of accident in

	and work force (Fatal / Non Fatal)		organization and workforce in case of accident
3	Rewards and Recognition Process	(+) Max 5 Marks	Maximum 5 marks will be awarded for R&R process evidence

Final Qualifying Criteria

S. No.	Description	Max Marks	Criteria for evaluation
1.	Qualified Bidders	More than 70 marks	As per Clause no.9