<b>TDC4D</b> 1	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR TECHNICAL SPECIFICATION		
<b>TPSØDL</b>			
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding		Eff. Date: 04/04/2023
Rev. No	00		Page 1 of 8
Prepared by:	Reviewed by:	Approved by:	Issued By:

# **CONTENTS**

- 1.0 SCOPE
- 2.0 APPLICABLE STANDARDS
- 3.0 CLIMATIC CONDITIONS OF THE INSTALLATION
- 4.0 GENERAL TECHNICAL REQUIREMENTS & CONSTRUCTIONS
- 5.0 NAME PLATE AND MARKING
- 6.0 INSPECTION, DESPATCH, Acceptance & TESTING
- 7.0 REJECTION OF MATERIALS:
- 8.0 INSPECTION AFTER RECEIPT AT STORE
- 9.0 WARRENTY
- 10.0 TENDER SAMPLE
- 11.0 QUALITY CONTROL
- 12.0 MINIMUM TESTING FACILITIES
- 13.0 MANUFACTURING ACTIVITIES
- 14.0 SPARES, ACCESSORIES AND TOOLS
- 15.0 DRAWING
- 16.0 GUARANTEED TECHNICAL PARTICULARS
- 17.0 SCHEDULE OF DEVIATION

	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR TECHNICAL SPECIFICATION		
<b>TPSØDL</b>			
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding		Eff. Date: 04/04/2023
Rev. No	00		Page 2 of 8
Prepared by:	Reviewed by:	Approved by:	Issued By:

#### 1.0 SCOPE:

This specification covers the technical requirements of design, manufacture, testing at manufacturer's works, packing, forwarding, supply and unloading at store/site and installation of hording in PAN TPSODL (Creativity Theme will be provided by the user team of TPSODL).

### 2.0 APPLICABLE STANDARDS:-

The equipment covered by this specification shall unless otherwise stated, be designed, constructed and tested in accordance with latest revisions of relevant Indian Standards and shall conform to the regulations of local statutory authorities. The GI shall comply with the requirements of latest issue of IS - 2062:2006, Grade - A , IS : 808 / 1989 / 2001 , IS : 1608 / 1995 & IS : 12777 / 1989 & their latest amendments if any.

#### 3.0 CLIMATIC CONDITIONS OF THE INSTALLATION:

The material shall be suitable for following climatic conditions,

Maximum altitude above sea level	1,000m
2. Maximum ambient air temperature	50°C
3. Maximum daily average ambient air temperature	35°C
4. Minimum ambient air temperature	0°C
5. Maximum relative humidity	95%
6. Average number of thunderstorm days per annum (isokeraunic level)	70
7. Average number of rainy days per annum	120
8. Average annual rainfall	150cm

- 9. Earthquakes of an intensity in horizontal direction-equivalent to seismic acceleration of 0.3g
- 10. Earthquakes of an intensity in vertical direction equivalent to seismic acceleration of 0.15g (being acceleration due to gravity)
- 11. Wind velocity:

300 km/hr, 200 km/hr and 160 km/hr.

Environmentally, some of the regions, where the work will take place includes coastal areas, subject to high relative humidity, which can give rise to condensation. Onshore winds will frequently be salt laden. On occasions, the combination of salt and condensation may create pollution conditions for outdoor insulators. Some places are in heavily industrial polluted areas. Therefore, Outdoor material and equipment shall be designed and protected for use in exposed, heavily polluted, salty, corrosive and humid coastal atmosphere. The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1 g.

#### 4.0 GENERAL TECHNICAL REQUIREMENTS & GENERAL CONSTRUCTIONS

Sr No.	ltem	Size	Material Description
1	Banner	10X6 ft	Print material in 3mm eco Vinyl mat lamination
2	MS grid angle for length Rod	20 ft	50X50X5 mm angle (4 nos)
3	Frame angle for length rod	1 ft	Frame 25X25X5 mm angle (48 nos)
4	MS flat	1.4 ft	Flat 25X5 mm (24nos)

TREADI	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR TECHNICAL SPECIFICATION		
<b>TPSØDL</b>			
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding		Eff. Date: 04/04/2023
Rev. No	00	00	
Prepared by:	Reviewed by:	Approved by:	Issued By:

5a.	Frame Angle	10ft	Frame 50X50X5 mm angle (4 nos)
b.	Side frame angle	6ft	Frame 35X35X5 mm angle (4 Nos)
6	CR Sheet	10X6 ft	CR Sheet 16 gauze thick
7	PCC	5X1.5X1.5 ft	Cement concrete M15 grade (2 nos)
8	Paint		GI sheet aluminum color

# Mechanical Properties:

Sr No.	Tensile Test :	Requirement as per IS:2062/ 1999 Grade-A
1	Yeild Stress(Mpa)	Min 250
2	Tensile Strength(Mpa)	Min 410
3	Lo=(5.65 So)Elongation%	Min 23
4	Bens Test	Shall not crack

# **Chemical Properties:**

Chemical Composition	Requirement as IS:2062/ per 1999 Grade-A	Permissible variation over Specified
Grade	Α	-
Chemical Name	Fe-410W	
Carbon (%Max)	0.23	0.2
Manganese(%Max.)	1.5	0.05
Sulphur(%Max.)	0.050	0.005
Phosphorous(%Max.)	0.050	0.005
Silicon(%Max.)	0.40	0.03
Carbon Equivalent(%Max.)	0.42	
Deoxidation Mode	Semi-killed or killed	
Supply condition	As rolled	

However, In case of any discrepancy between the above data & the relevant ISS, the values indicated in the IS shall prevail. The Acceptance Tests shall be Carried out as per Relevant ISS.

### **5.0 NAME PLATE AND MARKING:**

Embossing on each frame:

Following distinct non-erasable embossing is to be made on each frame to be supplied to TPSODL under this Tender.

Name of the Owner – TPSODL

B.I.S Logo (ISI Mark).

Name of manufacture:

PO No & Date

Serial no:

### **TYPE TEST CERTIFICATES:**

Bidder shall submit Type test Certificates for the tests as mentioned above. All the tests should have been conducted during the period not exceeding five years from the date of opening the bid

<b>TDC4D</b> 1	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR TECHNICAL SPECIFICATION		
<b>TPSØDL</b>			
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding		Eff. Date: 04/04/2023
Rev. No	00		Page 4 of 8
Prepared by:	Reviewed by:	Approved by:	Issued By:

and at CPRI/ ERDA/any NABL accredited lab as per the relevant standards. In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TPSODL.

### 6.0. INSPECTION, DESPATCH, Acceptance & TESTING:

Sample required to be verified by TPSODL Safety Team. After verify by TPSODL Safety Team vendor shouldstart the fabrication.

- (a) INSPECTION: The supplier shall submit their offer for inspection of materials at least 10 days before actual date of inspection proposed at their factory premises. The Inspectors duly authorized by the purchaser shall be deputed to conduct the Inspection & Testing of frames at the suppliers' works before dispatch, on receipt of offer for inspection from the supplier. The purchaser at his discretion may engage a third party for above inspection. The Pre-dispatch inspection shall be carried out as per relevant ISS / Tender Specification / GTP enclosed in the Purchase Order. The supplier shall extend all necessary assistance / co-operation to the authorized inspectors of the buyers.
- (b) DESPATCH INSTRUCTION: The authorized inspectors shall furnish their Inspection Report to the undersigned for approval. On receipt of successful Pre dispatch inspection, the undersigned shall issue dispatch instruction to the supplier. On receipt of such dispatch instruction the materials shall be dispatched by the supplier to the consignee

#### 7.0 REJECTION OF MATERIALS:

In the event, any of the materials / equipment supplied by the Contractor is found defective due to faulty design, bad workmanship, bad materials used or otherwise not in conformity with the requirements of the Specification, the Purchaser shall either reject the materials / equipment or ask the Contractor in writing to rectify the same. The Contractor on receipt of such notification shall either rectify or replace the defective equipment free of cost to the Purchaser. If the Contractor fails to do so, the Purchaser may: a) At its option replace or rectify such defective equipment and recover the extra costs so involved from the Contractor plus fifteen percent and / or. b) Terminate the contract for balance work / supplies with enforcement of penalty Clause as per contract for the un-delivered goods and with forfeiture of Performance Guarantee/ Composite Bank Guarantee. c) Acquire the defective equipment / materials at reduced price considered equitable under the circumstances

### **8.0 INSPECTION AFTER RECEIPT AT STORE:**

The material received at the Purchaser store shall be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Project Engineering department.

### 9.0 WARRANTY:

The bidder shall warranty for satisfactory operation of the equipment for a minimum period of 24 months from the date of Commissioning or 30 months from the date of receipt of last consignment

<b>TDC4D</b> 1	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR TECHNICAL SPECIFICATION		
TPSØDL			
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding		Eff. Date: 04/04/2023
Rev. No	00		Page 5 of 8
Prepared by:	Reviewed by:	Approved by:	Issued By:

whichever is earlier. In the event of any defect in the equipment/ materials arising out of faulty design, inferior quality of raw material used or bad workmanship within the guarantee period, the Seller shall warranty to replace/ repair to the satisfaction of the purchaser the defective equipment's free of cost. Should however, the manufacturer fails to do so within a reasonable time, the purchaser reserves the right to recover the amount from the seller either from the bills pending or may recover from the Performance Guarantee submitted by the firm. If during the defect liability period any services performed found to be defective, these shall be promptly rectified by seller at its own cost (including the cost of dismantling and reinstallation) on the instruction of Purchaser

10.0 Tender Sample: NA

#### 11.0 QUALITY CONTROL:

The bidder shall submit with the offer Quality assurance plan indicating the various stages of inspection, the tests and checks which will be carried out on the material of construction, components during manufacture and bought out items and fully assembled component and equipment after finishing. As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished. The Purchaser's engineer or its nominated representative shall have free access to the manufacturer's/sub-supplier's works to carry out inspections.

## 12.0 Minimum Testing Facilities:

Bidder shall have adequate in house testing facilities for carrying out all routine tests, acceptance tests as per Indian /International standards.

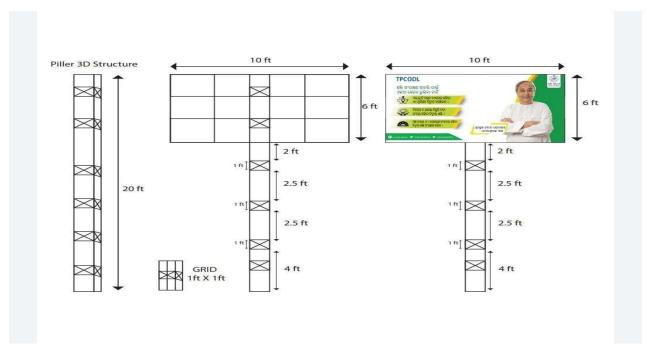
#### 13.0 Manufacturing Activities:

The successful bidder will have to submit the bar chart for various manufacturing activities clearly elaborating each stage, with quantity. This bar chart should be in line with the Quality assurance plan submitted with the offer. This bar chart will have to be submitted within 15 days from the release of the order.

14.0 Spares, Accessories and Tools: Not applicable

### 15.0 Drawing:

	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR TECHNICAL SPECIFICATION		
TPSØDL			
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding Eff. D		Eff. Date: 04/04/2023
Rev. No	00 Page		Page 6 of 8
Prepared by:	Reviewed by:	Approved by:	Issued By:





TPSØDL	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR TECHNICAL SPECIFICATION		
IPSODL			
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding Eff. Date		Eff. Date: 04/04/2023
Rev. No	00		Page 7 of 8
Prepared by:	Reviewed by:	Approved by:	Issued By:



**16.0 Guaranteed Technical Particulars:** 

	TP SOUTHERN ODISHA DISTRIBUITION LIMITED, BERHAMPUR		
<b>TPSØDL</b>	TECHNICAL SPECIFICATION		
Doc. Title	Technical Specification for Safety Hording		
Doc. No	ENG-GEN- Safety Hoarding		Eff. Date: 04/04/2023
Rev. No	00		Page 8 of 8
Prepared by:	Reviewed by:	Approved by:	Issued By:

Bidder shall submit guaranteed technical particulars.

# 17.0 Schedule of Deviation:

The bidders shall set out all deviations from this specification, Clause by Clause in this schedule. Unless specifically mentioned in this schedule, the tender shall be deemed to confirm the purchaser's specifications.

# (TO BE ENCLOSED WITH THE BID)

All deviations from this specification shall be set out by the bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:

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

We confirm that there are no deviations apart from those detailed above. Seal of the Company: Signature: Designation