



GARDEN REACH SHIPBUILDERS & ENGINEERS LTD.

**गार्डन रीच शिपबिल्डर्स एण्ड इंजीनियर्स लिमिटेड
(A GOVERNMENT OF INDIA UNDERTAKING)**

(भारत सरकार का प्रतिष्ठान)

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Web site वेब: www.grse.in

CIN सी आई एन: L35111WB1934GOI007891

NOTICE INVITING TENDER (NIT)

निविदा आमंत्रण सूचना

To,

M/s. Marine Electricals (India) Limited

B-1, Udyog Sadan 3, MIDC,

Marol Industrial Area, Andheri East,

Mumbai - 400093

GRSE Vendor Code: 50004706

Garden Reach Shipbuilders & Engineers Limited is a **leading Warship Builders and Engineering Product Company**, invites offer from **M/s. Marine Electricals (India) Limited** to submit **single stage two part (Part I- Techno-Commercial & Part II- Price) bid** through NIC portal for the work package as per following bid document.

NIT No निविदा संख्या:	SCC/MB/NIC/ST/Elect. Work/2627005/ET-3429 Dated: 08.04.2026
Job Title कार्य का नाम:	“Electrical work package onboard Yard 3024 of P17A” as per SOTR No. P17A/L&W/01 Dated 03.04.2026
Tender issuing Dept. बिभाग द्वारा जारी:	Contract Cell (संविदा बिभाग), GRSE (61 Park)

ARTICLE 1 अनुच्छेद-1: SCHEDULE OF CALENDAR DATES समायावली की अनुसूची:

SCHEDULE सारणी		
Bid submission Starting Date निविदा जमा करने की प्रारंभिक तिथि		
Tender Due Date निविदा जमा की अंतिम तिथि	11.04.2026	12:00 hrs.
Tender Opening Date (Part I) निविदा खुलने की तिथि (तकनीकी- वाणिज्यिक बोली भाग-I)	13.04.2026	10:00 hrs.
Offer Validity Period minimum ऑफर की नियुक्तम वैधता अवधि	180 days from date of opening of Tender (Part – I)	

ARTICLE 2 अनुच्छेद-2: COMMERCIAL REQUIREMENT FOR THE NIT निविदा की ब्यवसायिक आवश्यकता:

FEES / DEPOSITS	
Tender Fee निविदा प्रपत्र मूल्य (स्टैक के परिच्छेद 03 में उदधृत)	Not Applicable for this tender
Earnest Money Deposit (EMD) बयाना राशि जमा	Not Applicable for this tender
Security Deposit (SD) प्रतिभूति	5% of Work Order Value (inclusive of GST)
PBG पी बी जी	10% of Work Order Value (inclusive of GST)
Liquidated Damages परिनिर्धारित नुकसान	½% per week, Max 5% of unexecuted job
Billing Frequency बिल करने की अवधी	Itemwise progressive basis
Evaluation of L1 एल1 का मूल्यांकन	Not Applicable for this single tender enquiry

Note: - If any vendor other than **M/s. Marine Electricals (India) Limited** participates in this tender, then their offer will be **rejected** outright.

ARTICLE 3 अनुच्छेद-3: ANNEXURES ENCLOSED FORMING PART OF THIS e-TENDER ई-निविदा अंतर्गत संलगित परिच्छेद:

ANNEXURES	DOCUMENT DESCRIPTION
Annexure 1 संलग्नक-1	Statement of Technical Requirement (SOTR) (attached with NIT)
Annexure 2 संलग्नक-2	GRSE Standard Terms and Conditions (STAC) of the Contract (please refer www.grse.in → Tender → Enclosures Related to tenders of Sub-Contracting Activities)
	Check List of Statutory Responsibility of Contractor and Principal employer (please refer Standard Terms & Conditions (STAC) → Annexure - 2A → Appendix - A, B & C)
	General Requirement (please refer Standard Terms & Conditions (STAC) → Annexure - 2B → Appendix –D)
	Fire & Safety Guidelines (please refer Standard Terms & Conditions (STAC) → Annexure - 2C → Appendix –E)
Annexure 3 संलग्नक-3	Format for Integrity Pact (to be submitted in Rs. 100/- Non-Judicial Stamp paper)
Annexure 4 संलग्नक-4	Special condition of contract (please refer www.grse.in → Tender → Enclosures Related to tenders of Sub-Contracting Activities)
Annexure 5 संलग्नक-5	PF, ESI declaration form (please refer www.grse.in → Tender → Enclosures Related to tenders of Sub-Contracting Activities) (Not applicable)
Annexure 6 संलग्नक-6	Format for - Bank Guarantee Format for EMD (please refer www.grse.in → Tender → Enclosures Related to tenders of Sub-Contracting Activities) (Not applicable for this tender)

Annexure 7 संलग्नक-7	Format for - Bank Guarantee Format for SD (please refer www.grse.in →Tender→Enclosures Related to tenders of Sub-Contracting Activities)
Annexure 8 संलग्नक-8	Format for - Bank Guarantee Format for PBG (please refer www.grse.in →Tender→Enclosures Related to tenders of Sub-Contracting Activities)
Annexure 9 संलग्नक-9	Guide line for Bank Guarantee (please refer www.grse.in → Tender → Enclosures Related to tenders of Sub-Contracting Activities) (BG to be submitted in Rs. 100/- Non-Judicial Stamp paper)

ARTICLE 4 अनुच्छेद-4: DOCUMENTS TO BE UPLOADED अपलोड हेतु दस्तावेज:

Self-Attested documents are to be scanned and uploaded with Part I bid ई-बिड के भाग-1 के साथ स्कैन एवं अपलोड हेतु स्वअभिप्रामाणित दस्तावेज		
1	MSME/NSIC certificate to be submitted (if any)	Yes
2	Technical Acceptance Format as available with NIT after being downloaded and filled up	Yes
3	Commercial Acceptance Format as available with NIT after being downloaded and filled up	Yes
4	Integrity Pact to be submitted	Yes
5	PAN /TAN, GST, Registration Certificate of the Company with ROC/Trade License	Yes
6	Partnership Deed / Memorandum and the Article of Association of the firm confirming partners and lead partner	Yes
7	The Registration Number allotted by Trades Receivable e-Discounting System (TReDS) (Applicable only for MSE firms)	Yes

Registered Vendors with GRSE need not upload documents at Sl. No. 5, 6 & 7 above, if valid documents already submitted / available with GRSE Vendor Registration Cell.

ARTICLE 5 अनुच्छेद-5: DOCUMENTS IN PHYSICAL FORM TO SUBMIT वास्तविक प्रपत्र जो जमा करने हैं:
Not Applicable.

ARTICLE 6 अनुच्छेद-6: JOB EXECUTION SCHEDULE कार्य निष्पादन सूची

(A) Job Starting Date कार्य आरम्भ तिथी - Job is to be started immediately after issue of LOI/ PO, whichever is earlier.

(B) Job Completion date कार्य समाप्ती तिथी– The job should be completed within 30 September 2026 subject to availability of site clearance, materials and drawings.

(C) Record Keeping अभिलेखरक्षण –The contractor has to keep records of all dates for receipt of Materials, Drawings & site availability along with the date of inspection by GRSE production dept. and update the same on regular basis which shall be checked / verified by GRSE on demand.

The contractor is to maintain a Hindrance Register for recording instances of hindrance to work not on account of or attributable to contractor. The maintenance of hindrance register is to be done by contractor and the same is to be countersigned by nominated production dept. officer of GRSE. The hindrances recorded would be admissible for waiver in terms of period of hindrance during the computation of LD, if any, and as applicable will be admissible for deduction from the final bill.

(D) Quality Assurance Authority गुणवत्ता आश्वासन प्राधिकारी – GRSE QA/ WOT/other Naval inspecting agencies as per approved QAP.

(E) Place of Work – The work has to be carried out by the contractor at different unit of GRSE and KPDD. In case of shifting of the ships in different units for the requirement of Production, the job has to be executed in any unit of GRSE.

ARTICLE 7 अनुच्छेद-7: JOB EXECUTION कार्य निष्पादन -

Job is to be carried out strictly as per SOTR (SOTR No: P17A/L&W/01 Dated 08.01.2021) at Annexure 1, Drawings, GRSE requirement and in case of doubt, instructions of the Engineer-in-charge/ PL /DGM (L&W) or their nominated representatives are to be followed.

ARTICLE 8 अनुच्छेद-8: GUARANTEE & WARRANTY गारंटी एवं वारंटी –Applicable for a Period of **12 months** from the date of final Inspection of the job. The details are as per clause 07 of STAC (Annexure 2).

ARTICLE 9 अनुच्छेद-9: PRICE मूल्य –

Price quoted will be firm and fixed for the entire contract period till completion of work. Price is to be quoted including all taxes & duties etc. except GST. GST is to be indicated separately in the space provided in Price Bid and will be paid extra. No escalation whatsoever will be considered under any circumstances within the stipulated period of contract.

ARTICLE 10 अनुच्छेद - 10: ESCALATION मूल्य वृद्धि: Not Applicable.

ARTICLE 11 अनुच्छेद- 11: UNREASONABLE QUOTES अतर्कसंगत भाव: Not Applicable.

ARTICLE 12 अनुच्छेद -12: OFFER VALIDITY प्रस्ताव की वैधता-

Offer should be valid for **180 days** from the date of opening of Part-I bid i.e. Techno-commercial bid. Under exceptional circumstances GRSE may request for extension of price validity, beyond 180 days against valid reason.

ARTICLE 13 अनुच्छेद-13: CONDITIONAL OFFER सशर्त प्रस्ताव -

Conditional offers w.r.t. this tender will not be accepted.

ARTICLE 14 अनुच्छेद-14: DETERMINATION OF L1 एल-1 का चयन -

Not Applicable for single tender enquiry.

ARTICLE 15 अनुच्छेद-15: BOQ बी ओ क्यू -

BOQ as part of SOTR given in the tender is tentative. It may increase/decrease as per GRSE project requirement. In case of change in quantity, the payment for same shall regularize on pro-rata basis.

BOQ as per SOTR is given below:

Sl. No.	Description of the Job	UoM	Qty.
1	SER_AL CT INSTALLATION - 50 MM TO 150 MM	M	10,000
2	SER_AL CT INSTALLATION - >150 MM TO 400	M	4,750
3	SERVICE_CASING OF CT 50 MM TO 150 MM	M	2,000
4	SERVICE_CASING OF CT >150 MM TO 400 MM	M	1,000

5	SER_CH INST - 125 TO 275 MM (1T)	SET	1,500
6	SER_CH INST - 125 TO 275 MM (2T)	SET	1,000
7	SER_CH INST - 125 TO 275 MM (3T)	SET	1,100
8	SER_CH INST - >275 TO 400 MM (1T)	SET	2,100
9	SER_CH INST - >275 TO 400 MM (2T)	SET	1,800
10	SER_CH INST - >275 TO 400 MM (3T)	SET	1,000
11	SER_CONDUIT - UP TO 25 MM	M	600
12	SER_CONDUIT - ABOVE 25 MM	M	405
13	SER_DEGAUSSING PIPE - PR TEST, SEALING	M	600
14	SER_MCT INST - SIZE 2X1, 4X1 & 4X2	EA	25
15	SER_MCT INST - SIZE 6X1, 6X2 & 6X3	EA	20
16	SER_MCT INST - SIZE 8X1, 8X2 & 8X3	EA	20
17	SER_MCT PACKING - SIZE 2X1, 4X1 & 4X2	EA	125
18	SER_MCT PACKING - SIZE 6X1, 6X2 & 6X3	EA	125
19	SER_MCT PACKING - SIZE 8X1, 8X2 & 8X3	EA	375
20	SER_ROUND GLAND INST - RM70	EA	110
21	SER_ROUND GLAND INST - RM100	EA	345
22	SER_ROUND GLAND PACKING - RM70	EA	110
23	SER_ROUND GLAND PACKING - RM100	EA	305
24	SER_DK/ BHD TUBE - M10 TO M25	EA	250
25	SER_EQUPT INST - 0 TO 5 KG	EA	10,500
26	SER_EQUPT INST - > 5 TO 40 KG	EA	1,450
27	SER_EQUPT INST - > 40 TO 100 KG	EA	400
28	SER_EQUPT INST - > 100 TO 200 KG	EA	200
29	SER_EQUPT INST - > 200 KG	EA	150
30	SER_CABLE LAYING; OD UPTO 10 MM	M	1,82,000
31	SER_CABLE LAYING; OD >10 MM TO 16.5 MM	M	85,000
32	SER_CABLE DRESSING; CH: 125MM TO 275 MM (1T)	SET	2,300
33	SER_CABLE DRESSING; CH: 125MM TO 275 MM (2T)	SET	2,050
34	SER_CABLE DRESSING; CH: 125MM TO 275 MM (3T)	SET	1,800
35	SER_CABLE DRESSING; CH: >275 MM TO 400 MM (1T)	SET	550
36	SER_BULKHEAD EQUIPMENT TALLIES INST	EA	2,750
37	SER_INSTRUCTION TALLIES/ SERVICE TALLIES	EA	900
38	SER_CONNECTION-CORE SIZE UPTO 1.5 SQ-MM	EA	86,000
39	SER_CONNECTION-CORE SIZE >1.5 TO 10 SQ MM	EA	29,500
40	SER_CONNECTION-CORE SIZE >10 TO 35 SQ-MM	EA	1,500
41	SER_CONNECTION-CORE SIZE > 35TO70 SQ MM	EA	1,050

42	SER_CONNECTION - CORE SIZE > 70 SQ-MM	EA	1,350
43	SER_CON-PLUG TYPE-CORESIZES UPTO1.5 SQ-MM	EA	14,700
44	SER_CONNECTION-PLUG TYPE-CO-AXIAL CABLES	EA	900
45	SER_EMERGENCY SUPPLY CIRCUIT	EA	80
46	SER_MANNING OF SWITCHBOARDS	MND	8,500
47	SERVICE_II, STW & COMMISSIONING	EA	200
48	SERVICE_EMI/MC CAT-C TYPE I	EA	50
49	SERVICE_EMI/MC CAT-C TYPE II	EA	50

NB: i) UOM = Unit of Measurement ii) M = Meter iii) EA = Each iv) MND = Man days v) The above quantity is tentative and may vary as per GRSE project requirement. (vi) Contractor will be paid based on actual quantity basis his unit rate provided.

ARTICLE 16 अनुच्छेद-16: OPENING OF BIDS निविदा खुलना-

Part I (Techno-commercial) bid will be opened on the date declared in NIT. Part II bid will be opened post techno-commercial evaluation by GRSE. Price bid of only those who qualify techno-commercially will be opened. Opening date of Price Bid will be intimated accordingly to all qualified bidders. Disqualified bidders, either during technical assessment or commercial discussion or both techno-commercial evaluation will also be intimated about their non-consideration for further processing.

ARTICLE 17 अनुच्छेद-17: MICRO & SMALL ENTERPRISES सूछ्म एवं छोटे उद्योग - Not Applicable.

ARTICLE 18 अनुच्छेद-18: ASSESSMENT OF VENDORS AND DISTRIBUTION OF JOBS TO MULTIPLE BIDDER विक्रेताओं का आंकलन एवं विविध बोली लगाने वालों में कार्य वितरण - Not Applicable as the job will be awarded to **M/s. Marine Electricals (India) Limited.**

ARTICLE 19 अनुच्छेद-19: ELIGIBILITY CRITERIA पात्रता के मापदंड – Not Applicable.

ARTICLE 20 अनुच्छेद-20: INSTRUCTION TO THE BIDDERS बिडर हेतु अनुदेश -

1. Before submitting a bid, **M/s. Marine Electricals (India) Limited** expected to examine the Bid Documents carefully, if they desire, may visit the work front, fully inform themselves of existing conditions and limitations including all items described in the Bid Documents. NO consideration will be granted for any alleged misunderstanding or the materials to be furnished, work to be performed or actual considerations to complete all work and comply with conditions specified in the Bid Document.
2. Any qualified deficiency, errors, discrepancies, omissions, ambiguities or conflicts in the Bid Documents, or there be any doubts as to the meaning of a provision or requirement, the same shall immediately brought to notice of GRSE Tendering Dept.in writing, not less than 03 days prior to bid closing date.
3. It is understood that in receiving this bid, GRSE assumes no obligation to enter into a contract for the WORK covered by this bid request. GRSE reserves the right to reject any and all unqualified proposals or waive irregularities therein. GRSE reserves the right to evaluate each and every proposal and accept the whole or any part of the tender and the Tenderer shall be bound to perform the same at the rates quoted.

4. GRSE also reserves the right to reject any or, all bids and accept the bid, which in its opinion, appears to be most advantageous to GRSE. Receipt and review of this Bid Request constitutes an agreement of confidentiality between GRSE and each of the contracting Firms preparing its Bid. GRSE reserves the right to change the form of this request to Bids, or make clarifications thereto, within a reasonable time before date of submission of Bids.
5. Generally, Contractor will assume all safety related responsibility for the site and will furnish and maintain its own safety program for itself and its subcontractors. Contractor are bound to comply with all applicable Environmental, Occupational Health & Safety rules, regulations, procedures and guidelines when performing work in the facility or site.
6. Bidders objecting on any grounds to any bid specification or legal requirements imposed by these bidding documents shall provide written notice to GRSE within 02 calendar days from the day bid document was made available to public. Failure of a bidder to object in the manner set forth in this paragraph shall constitute and irrevocable waiver of any such objection.

7. **Independent External Monitors (IEM) आई. ई. एम. :**

Either or both of the following Independent External Monitors will have the power to access the entire project document and examine any complaints received by him. In case of any change in IEMs, it will be informed accordingly.

The communication details of the IEMs are as follows: -

- (A) Shri Lov Verma, IAS(Retd.),
Email: lov56@yahoo.com
- (B) Shri Debashis Bandyopadhyay, Ex-Director (HR), BHEL
Email: debashis9999@gmail.com

8. **Integrity Pact समग्रता अनुबंध: –**

The Integrity pact essentially envisages the agreement between prospective vendors /Bidders & buyers committing the person/officials of both the parties not to exercise any corrupt influence on any aspects of the contract. Only those vendors/bidders who enter into such an integrity pact with the buyer would be competent to participate in the bid. The format of Integrity Pact is enclosed with tender document (**refer Annexure-3**). The “Integrity pact” on Govt. issued Stamp paper of Rs.100/- duly filled as per enclosed format to be submitted in original. Bidders to ensure that every page of IP is ink signed with company seal/stamp in every page. [Please refer guideline for IP in STAC (Sl.No.-1) in GRSE website]

9. Job is to be carried out as per SOTR and instruction of the Engineer in-charge.
10. Any Drawings or technical information attached / provided with this NIT is the Intellectual Property of the Company and will be governed by the specific Acts applicable thereto.
11. Post submission of Tender, such drawings and technical information are to be physically returned. Also, all soft copies are to be destroyed and a self-certification to be submitted during TNC, failing which the processing of bid will not be taken further.

12. Contractors are responsible to clean up the area of work w.r.t all sort of debris generated on daily basis. If they fail to do so GRSE reserves the right to perform the cleaning activity and charge the contractor with penalty as per prevailing norms of GRSE. As a part of National Mission of *Swachh Bharat*, GRSE has adopted *Swachh GRSE* and maintaining cleanliness of work area is an essential pre-requisite.
13. Bidder has to declare, in what capacity he is participating in the tender viz PSU, Limited Co, Pvt. Ltd. Co., Sole Proprietorship Organization, Partnership firm, Joint Venture etc. Supporting documents (scanned copy) confirming such status to be uploaded as attachment to Part I bid.
14. A Bidder is allowed to submit only one Bid under any capacity / status.
15. It is a two-part bid hence request not to quote anything pertaining to price in technical bid. In case of submission of indication of price in any form in the techno-commercial bid (other than price bid) then such offer will be considered as rejected.
16. Difficulty in submitting the bid:
 - a. Any query/difficulty in understanding of SOTR or other technical Terms may be got clarified from **Mr. Lakshman Kumar, MGR (L&W-FOJ)**, e-mail: Kumar.Lakshman@grse.co.in
 - b. Any query/difficulty in understanding of Commercial Terms may be got clarified from and **Mr. Manna Basak, SM (Contract Cell)/ 61 Park Unit, Mobile No. 76040 63205**, e-mail: Basak.Manna@grse.co.in prior to submission of offer.
 - c. Any difficulty in submitting / uploading of e-tender or for any system help **Mr. Saraswata Palit, DGM (GRSE E-PROCUREMENT)**, e-mail/ Palit.Saraswata@grse.co.in / GRSE Service Provider M/s. NIC personnel may be contacted [Land line no: 033 24893902]
17. **E-mail Address for communication** संचार हेतु ई. मेल पता: Vendor to provide e-mail address to enable faster communication.

ARTICLE 21 अनुच्छेद- 21: e-BID INSTRUCTION ई बिड के अनुदेश –

- a) **M/s. Marine Electricals (India) Limited** can view / download Part-I (Techno-Commercial) bid documents along with all attachments in E-Procurement portal <https://eprocuregrse.co.in>; They need to fill up the downloaded documents as per instruction and upload the same during bid submission. Non-acceptance of any techno-commercial criteria is discouraged.
- b) It is mandatory for all bidders to have class – III Digital Signature Certificate (DSC) in the name of the person who will digitally sign the bid from any of licensed Certifying Agency (CA). Bidders can see the list of licensed CAs from the link <http://www.cca.gov.in>
- c) Bidders can view / download Part-I (Techno-Commercial) bid documents along with all attachments in E-Procurement portal <https://eprocuregrse.co.in>; NIT document can also be downloaded from GRSE website <http://www.grse.in/index.php/tender.html>. They need to fill up the downloaded documents as per instruction and upload the same during bid submission. Non-acceptance of any techno-commercial criteria is discouraged. However, if there is any, it is to be commented accordingly and also stated in the separate deviation format.

- d) Bidders need to fill up Part II (Price) bid online in HTML price bid format by inserting unit price only. No other attachment to the price bid will be reckoned.
- e) In case **M/s. Marine Electricals (India) Limited** does not quote his rate for any item(s), it will be presumed that the bidder has included the cost of that/those item(s) in the rates of other items and the rate for such item(s) shall be considered as **Zero** and the tender will be evaluated by the Employer accordingly and the work executed by the bidder accordingly.
- f) Bids can be submitted only during validity of registration of bidder with GRSE e- Procurement portal.
- g) The amendments / clarifications to the bid document, if any, will be posted on E- Procurement portal / GRSE website only.
- h) It will be the bidder's responsibility to check the status of their Bid on-line regularly after the opening of bid till award of work.
- i) AMENDMENT OF TENDER DOCUMENT
- i. Before the deadline for submission of the tender, the Tender Document may be modified by GRSE Ltd. by issue of addendum/corrigendum.
- ii. Addendum/corrigendum, if any, will be hosted on website / e procurement portal and shall become a part of the tender document **M/s. Marine Electricals (India) Limited** is advised to see the website for addendum/ corrigendum to the tender document which may be uploaded within the deadline for submission of Tender as finally stipulated.
- iii. To give **M/s. Marine Electricals (India) Limited** reasonable time to consider the addendum/ corrigendum into account in preparing their tenders, extension of the deadline for submission of tenders may be given as considered necessary by GRSE.

ARTICLE 22 अनुच्छेद-22: BID REJECTION CRITERIA बिड अस्वीकृति के मापदंड –

Following bid rejection criteria may render the bids liable for rejection:

1. **M/s. Marine Electricals (India) Limited** failure to furnish sufficient or complete details for evaluation of the bids within the given period which may range in between two to three weeks depending on the deficiencies noticed in the drawings / technical data which shall not however conflict with validity period.
2. Incomplete / misleading / ambiguous bid in the considered opinion of the Technical Negotiation Committee (TNC)/ Commercial Negotiation Committee (CNC) of GRSE.
3. Bid with technical requirements and/or terms not acceptable to GRSE / Customers / External agency nominated, as applicable.
4. Bid received without qualification documents, where required as per the Tender.
(Not Applicable for this Single Tender Enquiry)
5. Bid not meeting the pre-qualification parameters / criteria stipulated in the Tender Enquiry.
(Not Applicable for this Single Tender Enquiry)
6. Bid with validity expiry date shorter than that specified in the Tender Enquiry.

7. **M/s. Marine Electricals (India) Limited** not submitting Original instrument of EMD within 3 GRSE working days from the tender closing date. *(Not Applicable for this Single Tender Enquiry)*
8. EMD validity period is shorter than specified in the tender enquiry. *(Not Applicable for this Single Tender Enquiry)*
9. **M/s. Marine Electricals (India) Limited** not agreed for the fixed price till the validity of the tender or have quoted the variable price.
10. **M/s. Marine Electricals (India) Limited** not agreeing for furnishing of the required Security Deposit (SD).
11. **M/s. Marine Electricals (India) Limited** submitted false/incorrect documents etc.
12. **M/s. Marine Electricals (India) Limited** submitted **PRICE** along with Techno-Commercial Bid.

ARTICLE 23 अनुच्छेद-23: POST AWARD APLICABLE CLAUSES ठेका जारी करनेके पश्चात लागू उपधारा -

A. Security Deposit प्रतिभूति जमा -

Interest free refundable security deposit of **5%** of total work order value (inclusive of GST) is to be deposited in the manner elaborated in GRSE STAC at **Annexure-2**.

B. Work Done Certificate (W.D.C.) कार्य पूर्ति प्रमाण-पत्र (डबल्यू.डी.सी)-

Work done certificate will be issued by Engineer in Charge (L&W) / Project Leader or, his Nominated officer. W.D.C. is to include whether work has been completed as per delivery schedule or with delay [in days/weeks specified therein]. Any recovery towards usage of GRSE resources is also to be indicated.

C. Bill Submission बिल प्रस्तुति:-

On obtaining WDC, bills to be raised after successful completion of job. Bills are to be submitted at OBPS portal after certification of WDC.

Bill frequency: Single invoice per month shall be submitted against item wise progressive work completion.

Note: -Transaction fee of Rs 500.00 for first return & Rs 1000.00 for subsequent return of bill with inappropriate documents will be charged.

D. Payment Terms भुगतान की शर्तें:

- (i) The 90% of certified bill amount with full GST for actual work done will be paid as item wise progressive basis within 30 days against online submission of GST e-invoice through OBPS portal with work done certificate. Amount recoverable from contractor, if any, is to be adjusted from 90% payments as per certification of Bill Certifying Authority. Moreover, release of payment is subject to clearance of ESI, P.F and other labour oriented mandatory liabilities of the Contractor from concerned HR section, if work is undertaken inside GRSE premises and if the job is undertaken outside GRSE premises, HR clearance of ESI, P.F and other labour oriented mandatory liabilities of the Contractor is not applicable for release of payment to the vendor.
- (ii) Balance 10% of the bill amount from above will be released after expiry of guarantee period duly certified by Bill Certifying Authority, PS P17A / PL of concerned Ship / HOD Nominated officer or

on submission of performance Bank Guarantee of equivalent amount valid till expiry of Guarantee period.

- (iii) Work done certificate shall not be required for release of performance bank guarantee / 10% retention amount.
- (iv) Payment will be made on actual certification basis through ECS/NEFT mode.

- Note: (i) All Vendors having turnover above Rs.5 Crore have to mandatorily submit E-Invoice.
(ii) All Vendors having turnover below Rs. 5 Crore are also to submit E- Invoice /digitally signed invoice. (Vendors having turnover under Rs.5 Crore have option to created E-Invoice).
(iii) Invoice in hard copy is not desirable.
(iv) Gate in entry date will be treated as gate stamped date.
(v) Work Done/Completion certifying authority must be atleast at the level of Dy. Manager.

E. Bill Certifying Authority: PS P17A / PL of concerned Ship / HOD Nominated officer.

F. Modification: -

- (i) The Sub-contractor should carry out modification to installation as required by GRSE/WOT due to system changes/modifications up to clearance of P.I. without any extra cost.
- (ii) Modifications necessary, subsequent to installation, to avoid interference with other equipment will also have to be carried out by the Sub-contractor at free of cost. Any change required to be carried out by the firm for installed items shall be mutually discussed and approval for the same shall be obtained from GRSE.
- (iii) The Sub-contractor will be liable for any shortcomings in the installation/erection/trials work and the same is to be made good at no extra cost. Any modification/rework required due to fault of the Sub-contractor will have to be carried out by them free of cost.
- (iv) Modification required due to change in drawings/systems by GRSE/NHQ shall be mutually discussed and finalized.
- (v) Modification/rework charges at 120% of the established rate will be payable in case of changes/ modification at the behest of GRSE/due to changes. However, this will have to be done under written instruction from GRSE and a mention to this effect is to be made in WDC. Any rework arising out of defective workmanship or lapses on account of the contractor will not be paid for.

G. Liquidated Damages निर्णीत हर्जाना - The vendor will be liable to pay minimum Liquidated Damages @ ½ % per week or part thereof on the undelivered work subject to a maximum of 5 % of the value of the order for delayed part. The amount of L.D. may be adjusted or set-off against any sum payable to the Contractor under this or any other Contract with GRSE Ltd.

H. Risk Purchase: - जोखिम खरीद -

In case the progress of work is not satisfactory and the contractor fails to maintain the schedule, GRSE reserves the right to get the work done by alternative source at the risk and cost of sub-contractor.

GRSE shall be at liberty to purchase/obtain the service from the alternative source as it deems fit, to make good such default and or in the event of the contract being terminated, the balance of the remaining service to be delivered there under. Any excess over the job price / service rates, paid and incurred by GRSE, as the case may be, over the contract price shall be recoverable from the firm. To

make good the recoverable excess amount paid, GRSE shall be at liberty to invoke Bank Guarantee and/or with other available dues of the firm.

I. Damage of Materials/ Equipment: - The contractor will ensure that **NO Damage** is caused to the Materials, Equipment's or any other property of GRSE during execution of the work due to negligence and/ or any reason whatsoever by the contractor. The cost of damage will be suitably recovered from contractor's Bill.

J. Fire & Safety Precautions (for working inside GRSE): -

The Vendor/Contractor shall abide by the Safety regulations/rules of the GRSE as detailed in Fire & Safety Guidelines (please refer www.grse.in). The Vendor/Contractor should take all safety precautions and provide adequate supervision & control for their workmen in order to carry out the job safely. In case of any violation of safety precaution and non-usage of safety equipment, Contractor shall be liable for a penalty which is detailed in Fire and Safety Guidelines (please refer www.grse.in). Penalty amount depends on the type and frequency of violation mentioned in the safety guideline and the same will be deducted from the defaulter's bill.

K. Mandatory use of ISI marked PPE by Contractor Employees: - The Contractor shall ensure the use of ISI marked PPE by their engaged Employees. An indicative list of ISI marked Personal Protective Equipment, is appended below for mandatory compliance by the vendors without any deviation:

LIST OF PPES

Sl. No.	Name of PPE	Standard
(a)	Safety Helmet	IS: 2925 / EN 397.
(b)	Safety Footwear	IS 15298 / EN ISO 20345
(c)	Safety Goggles	ANSI Z87.1 / EN166.
(d)	Ear Plug	IS: 9167/ EN 352
(e)	Hand Gloves	(i) IS 4770 for electrical work (ii) EN 420 for general requirement (iii) EN 388 for mechanical hazard (iv) IS:6994 / EN 407 for heat applications (gas cutting / welding).
(f)	Welding Fume Respirator & Dust mask	IS: 9473 / EN: 149
(g)	Double lanyard Safety Belt & harness, automatic fall arrestor	IS: 3521
(h)	Cotton Boiler Suit Cloth	IS: 177 - 1989 (Amended up to date), Variety 3

Note: Apart from the above-mentioned PPE, vendors may consider any other type of standardized PPE as per job requirement, in consultation with GRSE Safety Department.

L. Contractor's Safety Personnel (संविदाकार के बचाव कर्मचारी) (for working inside GRSE): - One fully specialist and certified Safety Personnel has to be posted at the site during progress of work. The responsibility of the safety personnel is to supervise and monitor the site safety obligations of all work places and to comply all laid down Fire & Safety Rules of GRSE. He also ensures all workmen working under the sub-contractor at site are made aware of and comply with all the safety norms. (Not applicable for this tender)

M. Contractors are responsible to clean up the area of work w.r.t. all sort of debris generated on daily basis. If they fail to do so GRSE reserves the right to perform the cleaning activity and charge the contractor with penalty as per prevailing norms of GRSE. As a part of National Mission of Swachh Bharat, GRSE has adopted Swachh GRSE and maintaining cleanliness of work area is an essential pre-requisite.

N. PAYMENT FOR UTILISATION OF PORTABLE ACs BY VENDORS:

GRSE will allow fitment of portable ACs at the vendors' premises/PORTA cabins on chargeable basis. Following to be complied with respect to installation / usage of AC machines: -

(a) Installation of New AC Machines

- (i)** ACs are to be of 5-Star Green rating upto a maximum of 1.5 Tons.
- (ii)** Vendors to seek installation clearance from ES&CM department. Post accord of clearance by ES&CM, vendor to install the AC and take power supply from designated place shown by the ES&CM dept.
- (iii)** All cables, RCCB, socket etc required for connection of the AC are to be arranged by the respective vendor.
- (iv)** Post completion of installation, an inspection will be carried out by the ES Dept for readiness to energise. Same procedure will be followed in case vendor willing to discontinue this facility.
- (v)** Charges toward electrical bills will be on monthly fixed rate basis @ 700.00 per month per AC irrespective of utilization / restriction of utilization.
- (vi)** In case vendor desires to remove AC connection, approval for the same to be obtained from ES Dept. However, full month charges will applicable for the said month in which the AC will be disconnected.

Any damage to GRSE property occurred due to use of AC to be made good by the vendor. In case vendor fails to carry out the same, defect will be made good under the risk and cost of the vendor.

(b) Usage of Existing AC Machine

- (i)** Vendors to apply for inspection of the installed AC by ES Dept. Any observations made by ES&CM dept during the inspection process are to be liquidated by the vendor. Cables, RCCB, socket etc, if required to be replaced, are to be undertaken by the vendor at his own cost.
- (ii)** Charges toward electrical bills will be on monthly fixed rate basis @ 850.00 per month (for below five stars rating) and ₹ 700.00 per month (for five stars rating) irrespective of utilization / restriction of utilization.
- (iii)** In case vendor desires to remove AC connection, approval for the same to be obtained from ES Dept. However, full month charges will applicable for the said month in which the AC will be disconnected.

Any damage to GRSE property occurred due to use of AC to be made good by the vendor. In case vendor fails to carry out the same, defect will be made good under the risk and cost of the vendor.

ARTICLE 24 अनुच्छेद 24: SUBMISSION OF BID बिड की पेशी –

(a) Last date of submission of Bid / Date of opening of bid is indicated in Tender Document. Tender is

liable to be rejected if all the requisite documents are not enclosed with the Part I, Techno-Commercial offer.

- (b) Date of opening of Part II offer i.e. Price Bid will be notified to all Techno-Commercially qualified bidders in due course after conclusion of TNC/CNC meetings and acceptance of Techno-Commercial offer. After opening of e-Price bids, the techno-commercially qualified bidders can view the System Generated Price Comparison Sheet from their own portal.
- (c) GRSE reserves the right to accept / reject any Tender in full or in part without assigning any reason.
- (d) Acceptance Format Matrix should be filled up and attached with techno-commercial bid as marks of acceptance of NIT/SOTR/STAC. In case of non-receipt of filled in STACs acceptance format matrix, it would be presumed that you have accepted all our terms & conditions as per GRSE tender until & unless deviation is specially mentioned in offer.

ARTICLE 25 अनुच्छेद 25: CONTRACT WORKMAN WAGE PAYMENT: - (for working inside GRSE)

- (a) Contractor is liable for payment of PF, ESI to their engaged workmen and for other labour oriented mandatory liabilities as applicable for the job.
- (b) The Contractor has to comply with the minimum wages & statutory liabilities (as revised time to time) of the engaged manpower applicable for the job.
- (c) Payment of wages to the contractor's employee should be made through individual bank account on monthly basis instead of cash payment. PF-UAN activation of all the contractor's employee/workmen is mandatory. Vendors are to comply all statutory provisions for disbursing payment to their workmen/employees.

ARTICLE 26 अनुच्छेद 26: STATUTORY RESPONSIBILITY OF CONTRACTOR DEPLOYING THEIR WORKMEN INSIDE GRSE PREMISES – AS PER ANNEXURE-2A.

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**GARDEN REACH SHIPBUILDERS
AND ENGINEERS LIMITED**

G.R.S.E. YARD NO. 3024

**SPECIFICATION NO.-
P17A/L&W/01**

**SCOPE OF WORK AND SPECIFICATION
FOR
ELECTRICAL SUB-CONTRACTING JOB**

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1. Preamble:

This specification gives the details of scope of rate contract work related to cable route, cable laying, installation, connection of various Electrical, Electronics, Navigation, Communication and Weapon Equipment of P17A Class of Ship. The details of the scope of work have been elaborated in the succeeding paragraphs.

2.

a) Committed Minimum cable laying rate

The bidder has to give an undertaking of committed minimum monthly cable laying rate of 25 Km per ship to achieve the target of cable laying of approx. 500 Km. The bidder should have the capacity to scale up the rate of cable laying upto 40 Km/ month.

b) Towards the same the contractor has to give Adequate Resource Allocation. The resource allocation is to be indicated in table below and complete tabulation of equipment, QA team, is to be shown separately in addition.


Sl. No.	Activity	Duration (in days)	Resources (Supervisor/ Skilled Wireman/ Welder/ Helper/ Total (including any other))			
i	Cable Route					
ii	Laying of Cables					
iii	Installation of Equipment					
iv	Dressing of cables					
v	Termination of cables					

Scope of Work: -

3. Cable Route Work:

3.1. Marking and preparation of Cable routes as per drawing for main, degaussing, separated and aerial cable routes including installation of all related items (Hanger, Trays, MCT glands, NWT Glands, Deck/Bhd tubes, MCT Single piercing etc.), making openings, associated gas cutting, grinding, welding of supports for cable runs, preparation and installation of cable trays and conduits should be done by the contractor.

3.2. The Job involved are L.O.M., preparation of Cable Route including hot work, fitment of lugs, chairs for cable hangers & trays, fitment of hangers (including assembling of Hanger side supports & cross bearers), cable trays/bends, piercing & fitment of cable glands (including running & final welding), laying of conduits (including fitment of all accessories like pipe clamps, sockets, bends, elbows, tees, nipples, sleeves etc.) for cable routes including local routes. The Contractor shall also be required to do painting of lugs, chairs, Trays, Hangers prior installation and touch up after hot work, if any. Any relocation of Hangers,

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Trays, Cable glands, Bhd & Dk tubes necessitated by normal ship board interference problem shall be carried out by the contractor at no extra cost.


- 3.3. The Electrical Contractor is also required to carry out the Main & Branch Cable Routes which are partly completed. Left over of the cable routes including piercing points to be undertaken / completed as per the instruction of berth. The contractor will also have to undertake the job of the cable route work including piercing of glands where the same are partly completed.
- 3.4. Local Cable routes in various compartments may not appear/partly shown in the composite layout drawings. The contractor has to complete the routing based on equipment location in the compartment. Same is to be marked in "As Fitted" drawing after completion.
- 3.5. Covering/casing of cable trays to be done in exposed decks and Cat A compartments, as specified in drawings. Fabrication and fitment of covers to be done by the contractor. GI Sheet will be supplied by GRSE.

4. Installation of Equipment:

- 4.1. Various Electrical, Electronic, Navigation, Communication equipment/items are to be installed on board ship as per respective layout drawings. The equipment/items are to be lined out prior to erection. The linings out markings are to be got approved from inspecting authority. The installation of equipment includes fitment / welding of lugs, pads, earthing pads etc., installation of equipment/ fittings on necessary shock mounts (wherever applicable), fabrication, erection of brackets and painting of hot work area i.e. lugs, brackets & other equipment seats.
- 4.2. After installation of items, same are to be preserved with suitable cover/ mechanical protection to avoid damage till handing over. Delicate items/ sensors/ displays/ consoles/ switchboards are to be protected with suitable covers of GI sheets. Covering material will be supplied by GRSE.

5. Laying & Dressing of De-gaussing Cables:


- 5.1. After completion of cable route work, degaussing cables are to be laid (as per cable schedule) by the contractor. The Job involves taking measurement of cable lengths based on cable schedule, taking approval of GRSE (Site officer) on the measured length, laying, dressing & clipping of cables in the cable trays including packing of piercing points. Degaussing cables will be required to be laid in trays and pipes. Measurement prior cutting is to be vetted in writing by GRSE (berth Officer/ PL).
- 5.2. The contractor should clean the conduits by pilot wire brushing and subsequently by blowing compressed Air. This cleaning of degaussing conduit pipes thoroughly before laying of cables is to be recorded in log sheet by contractor QA and counter signed by GRSE Berth Officer. Contractor is to

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undertake pressure testing after sealing the ends of the conduits as specified in drawings/ document.

6. Laying of Cables:

- 6.1. This Job involves taking measurement of cable lengths based on cable schedule /system drawings, taking approval of GRSE on the measured length, laying of cables, preliminary dressing of cables in the Main, Branch, separated & Local routes. The cables will be required to be laid in Trays, Hangers, Conduits as applicable. The cables will have to be tested for Continuity and Insulation before and after laying. Preparation of insulation test format/ certificate and submission of the same as per format given by GRSE will be carried out by contractor.
- 6.2. The cables are to be laid through MCT Glands as per layout plan to be provided to the contractor. During the process of cable laying, fitment of appropriate Modules / Blocks (according to cable OD) is required to be done by the contractor. Placement of the Modules/Blocks, stay plates at each layers, putting of wedges for proper tightening of the total block is to be carried out by the contractor for each MCT Gland as per recommended procedure to be provided by GRSE.
- 6.3. Special requirement such as tray work in gun blast area etc will be done as per electrical specification. In Magazine compartments and Barbettes conduit or GI pipes to be provided for laying of cables. Degaussing, Main & separated cable run need guarding by metallic guard will be provided by GRSE. The contractor should keep adequate free space on either side for fitting of the guards.
- 6.4. All cables shall be laid carefully and not just pulled, which can result in damages. Taking back of redundant cables due to modifications or rerouting have to be done at no extra cost. Cables are required to pass through Multiple Cable Transit system (MCT) where each cable has been identified to be laid through a predetermined path strictly as per MCT drawing.
- 6.5. Contractor shall do bending of trays, making clamps and other operations, which are necessary to suit at site.
- 6.6. Contractor shall do all equipment cable entry & glands and fitment of glands with watertight compound.
- 6.7. The contractor will also be required to complete the cable laying of a few lengths (circuit) which are partly completed including dressing of the same. The contractor is also required to check the route and piercing including those cables through MCT glands. Rectification, if any, will have to be done by the contractor. Packing of these cables through MCT glands along with other cables to be laid by the contractor and proving of the same after packing (on completion of laying through those particular glands) will be the responsibility of the contractor.

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- 6.8. The Contractor has to make requisition (Circuit wise) indicating length of measured cables for each circuit. In the event of any mismatch between measured length and estimated length, the same to be brought to the notice of GRSE Engineer and only after approval by GRSE such circuits are to be laid.
- 6.9. Monthly report of System & Circuit wise cable lengths are to be submitted to GRSE. Submission of the same shall be linked with work done certificate.
- 6.10. Brass cable identification tallies are to be supplied (by contractor) and fitted at both the ends of each cable. Cable code is to be punched on the tallies.

7. Dressing of Cables:


The job involves final dressing of cables in Main, Branch, Separated, Local Routes, slots and MCT Glands as specified. The cables already laid in Trays, Hangers, Conduits, slots & MCT Glands are also to be dressed. Cables passing through MCT glands & NWT glands are to be packed as per approved procedure, to be given by GRSE. The MCT glands will have to be packed with the rubber modules in two halves as per drawing and supplied by the manufacturer of the MCT glands for making the glands watertight & airtight. Packing of MCT glands to be proved during CITADEL tests. The dressing of cables should commence concurrently with the cable laying job.

8. Termination of cables for system/ equipment:

- 8.1. The Job involves end preparation of cables & termination of cables to various electrical, electronic, navigation & communication equipment / fittings after fitment of glands to the respective equipment, as required. Connecting up of all equipment by approved methods of cable terminations like crimping, soldering, connecting using plugs/ sockets etc. as per the system requirement.
- 8.2. The job also involves end dressing and end preparation of Cables, Termination, Circuit Identification, Ferruling, Gland/bush packing, earthing, Termination etc. to complete connection with the unit as per Naval Electrical Standard and/or Ship Building Practice.
- 8.3. The Electrical contractor is required to do termination work for the various equipment /items. Any other items not specifically mentioned but required as per respective system drawings, termination for those will also have to be done by the contractor.
- 8.4. All items (e.g. crimping sockets upto 10 Sq-mm cable size, ferrules, etc.) required for termination of cables are to be supplied by the contractor.

9. Following activities are also to be carried out by the Contractor:


- 9.1 Earthing of various equipment as per standard norms / EMI/EMC guideline.

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- 9.2 Supply and Fitment of cable Identification tally (before & after laying of cables).
- 9.3 Earthing & bonding of cables / equipment and fitment of conduits for mechanical protection and to meet EMI/EMC requirement / Standard. In case of conduit laying – for EMI/EMC continuity bond straps are to be fitted by the contractor.
- 9.4 Fitment of cable glands including drilling of glands as per cable O.D. on equipment as applicable.
- 9.5 All installation work on board must conform to the rules of EMI/EMC guidelines NECP 500.
- 9.6 Continuity and Insulation test of cables circuit wise. Continuity test is also to be done after connection on connectors and terminal strips.
- 9.7 Incorporate all modification (Major or Minor), including necessary hot work, cabling, connection etc. which may be necessary during the installation, inspection and trials of the equipment of the Ship.
- 9.8 Offering all systems and compartments for various stage inspections between LOI and completion of FI and clearing points (by liquidation of defects) during inspection.
- 9.9 Fixing of Tallies for all equipment and cables (cable tallies will be provided by contractor).
- 9.10 Installation and connection of Earthing pads.
- 9.11 Proving of MCT Glands during citadel testing/ATP. Necessary test appliances/tools required proving will have to be provided by the contractor.
- 9.12 Recording of Weight – All items to be weighed and duly certified in approved format prior to taking on board. Weekly weight statement is to be submitted to PL.

Technical Requirement:

10. The entire electrical installation, Cable laying/dressing, identification marking, termination, fitment of equipment etc. shall be as per relevant Naval Standards/Specifications. Any faulty installation made by the Contractor will have to be rectified within the time stipulated by GRSE. In case of failure by the Contractor to meet the Ship's programme, the outstanding deficiency may be rectified by GRSE and all cost of such work will have to be borne by the Contractor.
11. All electrical fittings and other equipment as shown in the relevant layout drawings will have to be marked on the compartments. Marking of cable routes, cable glands and offering these markings for inspection and getting required clearance from WOT prior to cable laying is the responsibility of the contractor.
12. 12.1 Welding of all seats, brackets etc. for the entire electrical installation work is to be carried out by the Contractor. Seats for all major deck / bulkhead mounted equipment e.g. switch boards; converters, trans-rectifier, transformers, control panels (weighing above 50Kg) etc. will be provided by GRSE. However, side supports/deck head supports are to be fabricated and erected by the contractor to suit site requirement (Materials will be supplied by GRSE).
- 12.2 Minor modifications of seats in the event of mismatching at the time of equipment installation shall have to be carried out by the Contractor without any cost implications.

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12.3 Base material for equipment installation like Angle/ Flat Bar/ Standard Brackets/ Plate / Aluminium & Brass Sheets/ L-clamps / mounting pads will be supplied by GRSE. However, necessary mounting arrangements are to be made by contractor. The Contractor will have to intimate well in advance regarding the requirement of such raw materials.

12.4 Drilling of hole on seats, brackets etc. for mounting of electrical equipment will be responsibility of the contractor and to be done by electrical or pneumatic drilling machine only and never by gas cutting.

12.5 Gland packing material will be provided by GRSE.

13. Items to be supplied by Elec. Contractor:

13.1 All Fasteners for fitment of equipment/fitings including non-corrosive stainless steel fasteners (IS 316 L) for Exposed Deck fittings, cable binding ties, ferrules, cable identification brass tallies, PVC sleeves/ tapes, glass fibre tapes/sleeves, ampere tape/sleeves, cable binding strap with stud, cable binding thread, tie base/clip, soldering leads/flux, Dowel paste, C.T.C., Grommets for panelled Compartments, crimping sockets (Dowells make) for various Power & Control cables upto 10 sq. mm cable sizes, packing wood/ Neoprene rubber for conduit sealing will have to be supplied by the Contractor. Neoprene rubber sheets are required to be provided at cable tray joints (Neoprene rubber sheets will be supplied by GRSE). Any other installation material required for completion of installation/ cable laying/ termination work are required to be supplied by the contractor.

13.2 Cable clamping materials (Al/Brass) will be supplied by GRSE in the form of sheets. Contractor to cut it for making cable clamps.

13.3 Conduits and associated items.


13.4 Normally all the equipment will be supplied with cable glands and crimping sockets (above 10 sq. mm). However, in the event of any short supply/mismatching of cable glands, earthing bar and crimping sockets, Contractor shall bring to notice of GRSE within 24 hours of receipt of the same. Otherwise the same is to be provided by contractor.

14. Drawings:

14.1 GRSE will issue two sets of working drawings to the Contractor and they should ensure proper preservation of the drawings for On-Board work/reference.

14.2 Any Subsequent requirement of drawings will be met by GRSE at additional cost at a rate to be mutually decided.

14.3 Since all these drawings are of restricted in nature, the Contractor should ensure proper care/custody of the drawings and shall not pass on information to any

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other individual / organisation without written consent of GRSE. The contractor is required to provide a written undertaking in this regard.

14.4 The Contractor will also be supplied with one set of all systems and layout drawings for incorporation of all modifications/corrections carried out On-Board for conversion of the same to As-fitted drawings. The Contractor shall have to return the drawings after gradual completion of fitting out work incorporating necessary changes as carried out in "RED". Certificate to this effect is to be obtained from GRSE.

14.5 The contractor is follow the drawing strictly and lay cables as per the same. In event of any unavoidable reason if the compliance to drawing is not feasible, the contractor is to bring out the same to Berth Officer/ PE D/ CDO L&W. Post written concurrence of the same, contractor is to do work. Also, the change made is to be submitted to CDO L&W for updation of the drawing and this change request is to be done within 15 days of the intimation / acceptance of the change request. A log of the change requests and the updation record duly signed by Berth Officer / CDO L&W is to accompany all WDCs.

15. Routine Maintenance:

15.1 The contractor will be responsible to maintain hygiene for all electrical & electronic equipment by proper covering, periodic dusting & cleaning, till commissioning of the Ship. All equipment on installation are to be covered with canvas cloth/or as advised by GRSE. No equipment inside the compartments are to be covered with plastic. Material required for this work to be supplied by GRSE.


15.2 Contractors will be responsible to maintain all batteries installed on board the Ship. Electrolyte & Distilled water will be issued by GRSE.

16. Stages of Inspection:

Naval Shipbuilding programme consist of following 4 parts. Part-I, II and III programme includes various Inspection Stages leading to Ship's CST & FMT. Part-IV programme is carried out after handing over of the ship to Navy/post commissioning.

Requirement of inspection and trials are generally as per BR-4050, BR-2553 and BR-1921, Stages of Inspection in brief are as given below:

Sl. No.	Description	Inspection Stages
1.	Trays, Hanger & Conduits	a. Cable Route Marking. b. Installation inspection along with the Compartment/ Blocks/ Units.
2.	Cabling	a. Cable dressing in Hanger/Trays along with the compartment/Areas.
3.	Bhd. & Dkhd	a. Bulkhead & Deck head glands position marking


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Sl. No.	Description	Inspection Stages
	Glands/ Tubes/ Cable Slots	b. Installation inspection along with the Compartment/ Blocks/ Units. c. APT wherever applicable.
4.	Packing of MCT Glands as per approved procedure	a. Fitment of Insert Blocks, Stay Plates, End Packing Block for each gland will be checked after completion of cable laying through each gland. b. Proving of Glands during Citadel Testing.
5.	Equipment Installation	a. Installation inspection along with the Compartment/ Blocks/ Units. i) General Compartment – PI & FI. ii) Semi-Clean Compartment –PI, II & FI. iii) Clean Compartment –PI, II, FI.
6.	Cable continuity Test	a. Insulation value of all cables to be noted before termination.

Inspection at various stages will be carried out by GRSE (QA), WOT and other Naval Inspecting agencies as per approved QAP.

17. Inspection – jointly by GRSE & WOT (Kol):

- 17.1 The contractor is required to furnish a QAP immediately on receipt of order for meeting all the technical requirements during the work. QAP is to be approved by GRSE.
- 17.2 Entire work is to be carried out under inspection by GRSE & WOT. The contractor shall offer for inspection at each stage and obtain written clearance prior to proceeding to next stage. The contractor shall maintain certificates of all inspections and approval. They shall produce earlier records on demand by GRSE/ inspection agency. Record of stage inspection to be produced for clearing the work done certificate also.
- 17.3 Various inspection stages will be generally as per stages/activities. The contractor however, shall offer the work for inspection in parts for ease of work and smooth progress.
- 17.4 Notwithstanding the above, the contractor shall offer work carried out at any stage as required by the inspecting agency.
- 17.5 Materials, which are under contractor's scope of supply shall be approved by GRSE and WOT prior to use. For consumables makers G.C. is required to be furnished by the contractor.
- 17.6 Defects arising out of following Inspection are to be rectified / liquidated within the time schedule to be informed by GRSE. The contractor shall compile list of defects and maintain records of clearance till handing over of the ship.


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18. Material:

- 18.1 The Contractor should plan his work in such a way so that GRSE are provided with at least 15 days' notice for drawing of any material.
- 18.2 Material inside GRSE stores will be handled by GRSE. The Contractor should have their own facilities for carrying the materials from stores to the Ship/work place. Generally, GRSE Jetty crane will be provided for the Equipment above 50 kgs. for lifting the materials On-Board.
- 18.3 Once a material is handed over to the Contractor from GRSE stores, it will be the Contractor's responsibility for proper storing/ preservation/up keeps of the materials till the same are taken over by GRSE/Ships Staff. Any damage/lost of the equipment during this period has to be made up by the Contractor at free of cost without effecting ships delivery period.
- 18.4 The items, which will be provided by the Contractor, should be of proper standard and to be got approved from GRSE / WOT prior to use.
- 18.5 After drawing of GRSE supply materials from stores, proper up keep and routine maintenance of the equipment will be the responsibility of the Contractor. Necessary certification regarding this from WOT if required, is to be obtained by the Contractor.

19. Modification:


- 19.1 The Contractor should carry out modification to installation as required by GRSE/WOT due to system changes/modifications up to clearance of P.I. without any extra cost.
- 19.2 Modifications necessary, subsequent to installation, to avoid interference with other equipment will also have to be carried out by the Contractor. Any change required to be carried out by the contractor for installed items shall be mutually discussed and approval for the same shall be obtained from GRSE.
- 19.3 The Contractor will be liable for any shortcomings in the installation/erection/trials work and the same is to be made good at no extra cost. Any modification/rework required due to fault of the Contractor will have to be carried out by them free of cost.
- 19.4 Modification required due to change in drawings/systems by GRSE/IHQ shall be mutually discussed and finalised.
- 19.5 Modification/rework charges at 120% of the established rate will be payable in case of changes/ modification at the behest of GRSE/due to changes. However, this will have to be done under written instruction from GRSE and a mention to this effect is to be made in WDC. Any rework arising out of

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defective workmanship or lapses on account of the contractor will not be paid for. A Log-Book for re-work is to be maintained by the sub-contractor.

20. Facilities required to be provided:

- 20.1 All tools & tackles and test equipment required for installation, testing/trials On-Board are to be provided by the Contractor. All test equipment should have proper valid calibration certificates acceptable to inspecting agency.
- 20.2 The Contractor shall have to provide all necessary electric/gas welding sets required for their work. GRSE will provide power supply & pneumatic supply at one point at the Jetty side. Gas and Electrodes will be supplied by GRSE.
- 20.3 The Contractor shall have to erect staging material for their work. Staging material will be provided by GRSE. However, staging erected by GRSE can be used by the Contractor with the consent of GRSE Ship-In-Charge, if the same is available at the specific time of use.
- 20.4 The Contractor should provide qualified and certified welders to meet Naval welding quality requirement. They should also provide qualified electricians, fitters, qualified supervisors, experienced Engineers for carrying out supervision of work. Skilled personnel shall be atleast ITI qualified in relevant trade. The number of skilled personnel shall be atleast 75% of the deployed manpower.
- 20.5 Power supply required for the equipment will be fed from Generators/shore supply through Main Switch Board of the ship. Availability of power supply is to be ensured mutually by the Contractor & GRSE supervisors.
- 20.6 The Contractor will have to supply all required installation materials e.g. bolts, nuts, washers, (plain & spring), fibre washer and all necessary cable installation/ connection materials as stated.
- 20.7 Site engineer of the Contractor must be equipped with up-to-date Communication Facility.
- 20.8 Entire painting scheme is to be completed behind all Electrical Equipment /Items prior to its fitment.
- 20.9 Contractor must maintain clean-ship of their working area.
- 20.10 Guarantee period – Guarantee / Warranty of the job is applicable for a Period of **12 months** from the date of Final Inspection. Any faulty work carried out by the contractor is to be rectified by them on board ship. In case the rectification is to be done after ship delivery, the probable works site will be at Vizag. AP but it may be any port in India.


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21. Planning & Project Monitoring

- (a) Contractor should draw up and submit a detailed activity-wise plan as per COMMITTED MINIMUM ASSURED RATE within a week of getting PO. Thereafter, detail plan to be submitted monthly basis at the end of each month, in line with ship's schedule.
- (b) Productivity for weekly basis, fortnightly basis & monthly basis is to be indicated as per the Format (to be issued by GRSE). Any failure may result in cancellation/ modification of order.
- (c) Contractor must identify a coordinator ear marked for close liaison with GRSE.
- (d) While executing the work, the Contractor should consider various inter dependencies on the progress of work, carried out by other departments/Contractors and will have to work in correct sequence with other agencies in different stages. In the event of non-sequence work by the Contractor leading to rework, all cost related to such rework will be charged to Contractor's account.
- (e) The Contractor should re-schedule their activities as necessary to suit GRSE's fitting out programme and time frame involving them inter dependent activities which come out during the course of work.
- (f) Electrical installation work is to be carried out simultaneously with other groups (Machinery, Plumbing, Structural etc.) who will be working their part of Job. Number of personnel & time required to complete the work in stipulated period is to be planned by the Contractor accordingly. Deployment pattern of manpower of the Contractor will have to be forwarded to GRSE.
- (g) The contractor shall plan their work and intimate GRSE three weeks in advance the date of requirement of drawings/ tech. documents so that the same may be made available to them.
- (h) Reviews: GRSE will review the progress of work on a weekly basis with site in charge of contractor to monitor progress vis-a-vis schedule. During this interaction all holdups related to progress of work will be discussed and resolved. Schedule of reviews will be

	GRSE	Contractor
Weekly	PL	Site in charge
Fortnightly	GM P-17A,	Project Manager
Quarterly	Director	VP/Director

- (i) Catch up Mechanism: To meet the production target, contractor will have to make arrangement for additional manpower/ time. Work in Shift system may also need to be adopted to meet the project dates. This will be

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intimated in writing in the event of failure of schedule. The shift system is to be implemented within 2 weeks of intimation.


- (j) Communication is to be by email to PL/ DGM (W&L), the nodal officer for the contract.

22. Other requirements:

- 22.1 The Contractor should provide adequate nos. of skilled on board supervisors, workmen and labours to meet the work schedule of the ship and for proper interaction with the inspection agencies. The contractor shall work in 02 shifts as per requirements. The vendor has to commence working in 02 shifts within 02 weeks of the Controlling Production Officer's intimation to do so.
- 22.2 For completion of work to meet GRSE's inspection & trial schedule, the Contractor's work force may have to work beyond the working hours for which no additional payment will be made to the Contractor.
- 22.3 The Contractor should furnish the names of supervisors and staff with their qualifications & experience to GRSE. GRSE will have the option to cancel the names of supervisors/staff deployed in GRSE.
- 22.4 The Contractor will have to submit the record of weight of material taken On-Board duly endorsed by WOT rep. to GRSE Ship-In-Charge weekly.
- 22.5 For taking In and Out of tools & tackles etc., procedures as per GRSE norms will have to be followed by the contractor. List of tools & tackles, instruments & accessories for erection & testing will have to be brought by the Contractor in advance and list of such tools & tackles etc. is to be forwarded to GRSE.
- 22.6 All GRSE rules & regulations for Contractors will be binding on Contractors.


23. Method of Quotation:

- 23.1 Cable route work:
- | | |
|--|------------|
| 23.1.1 Al. Cable tray | - Per Mtr. |
| 23.1.2 Cable Hanger | - Per Set |
| 23.1.3 MCT Glands | - Per No. |
| 23.1.4 Multiple Cable Glands (NWT) | - Per No. |
| 23.1.5 Single Bulkhead Gland/Deck Tubes | - Per No. |
| 23.1.6 Conduits (including supply of material, Route marking, Hot work, installation and sealing with brass cap) | - Per Mtr. |
| a) Upto 25 mm OD | |
| b) > 25 mm OD | |
| 23.1.7 Degaussing pipes (cleaning/ pressure testing/ sealing of both ends) | - Per Mtr. |

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[For Sl. 23.1.3 & 23.1.4 separate rate is to be quoted for Installation and Sealing/Packing/rat proofing.]

- 23.2 Laying and dressing of cables:
- 23.2.1 Laying of Cables including preliminary securing (O.D. wise) - Per Mtr.
- Upto 10 mm
 - > 10 to 16.5 mm
 - > 16.5 to 30.5 mm
 - > 30.5 mm to 52 mm
- 23.2.2 Dressing and Clipping of Cables as per categories of 23.1.1, 23.1.2 - Per Mtr.
- 23.3 Installation of equipment:
Unit rate is to be quoted for each equipment /item as detailed in List of Equipment.
Categories of Equipment are as following: -
- Below 5 Kg
 - Above 5 Kg to 40 Kg
 - Above 40 Kg to 100 Kg
 - Above 100 Kg to 200 Kg
 - Above 200 Kg (for payment – till 400 Kg will be considered as one unit, 400 Kg to 800 Kg as two units and so on)
- 23.4 Glanding, Connection, check wire and System commissioning for all cables Terminating in equipment: - Per Core
- 23.4.1 Power cables/ Lighting/ Control Cable – terminal block connections: -
- Cable Core size up to 1.5 Sq-mm
 - > 1.5 to 10 Sq-mm
 - > 10 to 35 Sq-mm
 - > 35 to 70 Sq-mm
 - > 70 Sq-mm
- 23.4.2 Plug type (Crimping/ soldering connection): -
- Cable Core size up to 1.5 Sq-mm
 - Co-axial cables
- 23.5 Fixing of Tally Plates:
Separate rate is to be quoted for fixing of Bhd Tally Plates for equipment and instruction/ service tally in per no. basis.

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24. Certification:

- 24.1 Work shall be carried out under direct supervision of PL/DGM (W&L) on board and clearance will be given by the nominated berth officer.
- 24.2 Quantity of actual work to be certified by GRSE berth officer. Bill to be raised on the certified quantity of actual work done.
- 24.3 Work done certificate shall be issued in quadruplicate which will be duly certified by GRSE nominated berth officer.
- 24.4 Bill shall be finally certified by PS P17A/HOD nominated officer.

25. Safety


- 25.1 The contractor shall follow all GRSE safety norms and ensure use of proper tools and equipment. All personnel safety gears (i.e. Welding gloves, welding shield, Shoes, Helmet, Safety belt, Chest guard, Leg guard etc.) required for on-board work for their personnel are to be arranged by the Contractor.
- 25.2 All welding cables and gas hoses are to be certified by GRSE safety officer.

26. Security

All documents / drawings of GRSE Yard No. 3022 are of confidential in nature. All drawings / documents issued to the contractor should not be copied and should be returned to GRSE on completion of work.

27. Miscellaneous


- (a) Contractor is to have a dedicated QA department. Before each inspection and final delivery of material at GRSE, the same are to be checked by contractor's QA rep.
- (b) All materials taken and their completeness for execution of the work is to be checked to ensure that there is no shortfall between supply and document. In case this is not feasible, the same to be done by contractor and shortfall if any, to be intimated to GRSE within 3 working days of receipt of material, failing which it will be assumed that there is no shortfall in delivery from GRSE side.
- (c) All outfitting items supplied by GRSE must be fitted in the unit. The contractor is to have a Container (standard 20 TEU) as office cum store for ensuring safe storage of all small size raw material and outfits.
- (d) Any clarification required on drawings/material must be obtained from GRSE within 3 working days of receipt of drawing/material.

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(e) Pro-rata progress, as committed during TNC, will be checked on weekly basis. In the event of any undue delay, GRSE will have the right and authority to withdraw/ partially withdraw the order. Such action may also call for blacklisting the contractor.


Resource Allocation & Time on Task

28. It is essential to maintain and ensure time on task. Daily attendance record is to be taken.
Late Comers will not be permitted to enter and early departure, without valid reasons counter signed by site in charge. Towards the same Contractor has to submit the unit wise Daily Manpower Allocation (Supervisor & each grade wise) to the Site-in-Charge, on daily basis before the start of the shift. In addition, following records to be maintained at site: -
- Register,
 - Material Reconciliation
 - Hindrance Register
 - Any other requirement that would be indicated by GRSE.
29. If any material issued by GRSE to the contractor is 'damaged / lost' and is not usable, the cost of the material plus overhead charges will be recovered from contractor as per the costing estimate section. Any rectification work on account of poor workmanship will have to be carried out by the contractor at no extra cost.
30. In case of rejection due to faulty workmanship of contractor, cost of material plus overhead charges will be recovered from the contractor as per the costing done by GRSE.
31. Contractor shall carry out the survey /site visit of the location prior to bidding.

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**LIST OF NAVAL STANDARDS TO BE FOLLOWED
FOR ELECTRICAL INSTALLATION WORK**

- NES 502 : Requirement of Electrical Installation.
- NES 511 : Requirement of Testing Equipment.
- NES 512 (pt.9): Guide to Selection & Installation of cable to limit electrical interference.
- NES 512 (pt.10): Termination & Connections.
- NES 512 (pt.11): Glands, Grommets & Dk.Tubes.
- NES 514 : Guide to cable entry, Termination & Junction components for equipment.
- NECP 500 : EMI/EMC Guidelines
- [Any other Standards/Rules & Regulations related to the contract.]

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Breakdown of Quantities for Different Activities

Sl. No.	Description of the Job	UoM	Qty.
1	SER_AL CT INSTALLATION - 50 MM TO 150 MM	M	10,000
2	SER_AL CT INSTALLATION - >150 MM TO 400	M	4,750
3	SERVICE_CASING OF CT 50 MM TO 150 MM	M	2,000
4	SERVICE_CASING OF CT >150 MM TO 400 MM	M	1,000
5	SER_CH INST - 125 TO 275 MM (1T)	SET	1,500
6	SER_CH INST - 125 TO 275 MM (2T)	SET	1,000
7	SER_CH INST - 125 TO 275 MM (3T)	SET	1,100
8	SER_CH INST - >275 TO 400 MM (1T)	SET	2,100
9	SER_CH INST - >275 TO 400 MM (2T)	SET	1,800
10	SER_CH INST - >275 TO 400 MM (3T)	SET	1,000
11	SER_CONDUIT - UP TO 25 MM	M	600
12	SER_CONDUIT - ABOVE 25 MM	M	405
13	SER_DEGAUSSING PIPE - PR TEST, SEALING	M	600
14	SER_MCT INST - SIZE 2X1, 4X1 & 4X2	EA	25
15	SER_MCT INST - SIZE 6X1, 6X2 & 6X3	EA	20
16	SER_MCT INST - SIZE 8X1, 8X2 & 8X3	EA	20
17	SER_MCT PACKING - SIZE 2X1, 4X1 & 4X2	EA	125
18	SER_MCT PACKING - SIZE 6X1, 6X2 & 6X3	EA	125
19	SER_MCT PACKING - SIZE 8X1, 8X2 & 8X3	EA	375
20	SER_ROUND GLAND INST - RM70	EA	110
21	SER_ROUND GLAND INST - RM100	EA	345
22	SER_ROUND GLAND PACKING - RM70	EA	110
23	SER_ROUND GLAND PACKING - RM100	EA	305
24	SER_DK/ BHD TUBE - M10 TO M25	EA	250
25	SER_EQUPT INST - 0 TO 5 KG	EA	10,500
26	SER_EQUPT INST - > 5 TO 40 KG	EA	1,450
27	SER_EQUPT INST - > 40 TO 100 KG	EA	400
28	SER_EQUPT INST - > 100 TO 200 KG	EA	200
29	SER_EQUPT INST - > 200 KG	EA	150
30	SER_CABLE LAYING; OD UPTO 10 MM	M	1,82,000

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31	SER_CABLE LAYING; OD >10 MM TO 16.5 MM	M	85,000
32	SER_CABLE DRESSING; CH: 125MM TO 275 MM (1T)	SET	2,300
33	SER_CABLE DRESSING; CH: 125MM TO 275 MM (2T)	SET	2,050
34	SER_CABLE DRESSING; CH: 125MM TO 275 MM (3T)	SET	1,800
35	SER_CABLE DRESSING; CH: >275 MM TO 400 MM (1T)	SET	550
36	SER_BULKHEAD EQUIPMENT TALLIES INST	EA	2,750
37	SER_INSTRUCTION TALLIES/ SERVICE TALLIES	EA	900
38	SER_CONNECTION-CORE SIZE UPTO 1.5 SQ-MM	EA	86,000
39	SER_CONNECTION-CORE SIZE >1.5 TO 10 SQ MM	EA	29,500
40	SER_CONNECTION-CORE SIZE >10 TO 35 SQ-MM	EA	1,500
41	SER_CONNECTION-CORE SIZE > 35TO70 SQ MM	EA	1,050
42	SER_CONNECTION - CORE SIZE > 70 SQ-MM	EA	1,350
43	SER_CON-PLUG TYPE-CORESIZES UPTO1.5 SQ-MM	EA	14,700
44	SER_CONNECTION-PLUG TYPE-CO-AXIAL CABLES	EA	900
45	SER_EMERGENCY SUPPLY CIRCUIT	EA	80
46	SER_MANNING OF SWITCHBOARDS	MND	8,500
47	SERVICE_II, STW & COMMISSIONING	EA	200
48	SERVICE_EMI/MC CAT-C TYPE I	EA	50
49	SERVICE_EMI/MC CAT-C TYPE II	EA	50

NOTE: - (i) UOM- Unit of Measurement (ii) EA-Each (iii) M-Meter (iv) MND-Mandays
 (v) The above quantity is tentative and may vary as per GRSE project requirement.

STANDARD TERMS & CONDITIONS (STAC)**मानक निबंधन और शर्तें (एसटीएसी)****(1) Integrity Pact समग्रता अनुबंध:**

All the participating vendors in this tender are required to enter into agreement by signing an Integrity Pact.

“The Pact essentially envisages as agreement between the prospective vendors/bidders and the buyer, committing the persons/officials of both the parties, not to exercise any corrupt influence on any aspect of the contract”.

Signing of Integrity Pact will be preliminary qualification for participation of this tender, only those vendors who have entered into this Pact with GRSE will qualify for the contract. This Integrity Pact will be effective from the stage of invitation of bids till the date of complete execution of this contract.

Signing Authority for Integrity Pact:

(A) Vendor: Proprietor / Director / Authorized representative

(B) GRSE: Head of the ordering department, not below the rank of DGM / AGM

Vendors need to sign on each page of the Integrity Pact document and provide the same on a Govt. issued bond paper of Rs.100/-. The scanned copy of the same need to be uploaded along with the technical Bid documents and original copy of the same to be forwarded to Tendering Department before the due date of the tender.

(2) Micro & Small Enterprise (सूक्ष्म और छोटे उद्यम) -

- i. Purchase preference will be given to eligible Micro and Small Enterprise firms as per MSME Act on submission of valid UDYAM Registration Number or Udyog Aadhar Memorandum (UAM) or Entrepreneurs Memorandum Part II (EM) or NSIC copy along with their offer to claim the benefit. Tendered Service is to be listed in the UDYAM or UAM or the EM Part II or NSIC submitted else they are disqualified to avail the benefit.
- ii. In tender, participating Micro and Small Enterprises (MSE), quoting price within price band of L1+15 percent shall be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a Micro and Small Enterprise (MSE) and such MSE shall be allowed to supply up to 25 percent of total tender value.
- iii. In case L1 is not an MSE and there is more than one MSE within the range of L1+15%, only the lowest MSE shall be considered for 25% order in case of divisible item (or 100% in case order quantity is not divisible), subject to matching the L1 prices. Only on refusal of such lowest MSE to accept L1 price, second lowest MSE within the range of L1+15%, shall be considered. This process shall be continued till a MSE in the range accepts the L1 price or the MSEs in the L1+15% range are exhausted. In case no MSE accepts the

L1 price or there is no MSE available, in L1+15% range, then the order shall be placed without applying this principle.

- iv. In addition MSE firms will be entitled to avail the following benefits:
- Tender Documents will be issued free of cost.
 - Earnest Money Deposit will be exempted.

(3) EARNEST MONEY DEPOSIT (INTEREST FREE) बयाना जमा (ब्याज रहित) (Not Applicable for this single tender enquiry)

- Amount of declared interest free Earnest Money Deposit (EMD) is to be submitted in form of Demand Draft / Pay Order, Payable at Kolkata and issued in favour of "Garden Reach Shipbuilders & Engineers Limited" by any Nationalized/Scheduled Bank other than Co-operative Bank. Physical DD/PO to be forwarded to Tendering Department of GRSE within 07 days of tender due date. A scanned copy of the same is to be uploaded as an attachment to the PART I e-bid submission.
- EMD may also be submitted in the form of Bank Guarantee with six months validity as per enclosed GRSE format of Bank Guarantee and is to be forwarded directly to GM (Finance), GRSE in Bankers' sealed envelope failing which same will not be accepted. Details of B.G. are to be in Techno-Commercial part of offer.
- MSE registered firms having the tendered service listed in their MSE document will be eligible for exemption from submitting EMD. To claim the exemption a copy of the valid MSE certificate with its annexure is to be scanned and uploaded as an attachment to the General Document part of E-PROCUREMENT. The same is to be confirmed in the PART- I concurrence format.
- Non-submission of EMD or a valid MSE certificate may lead to offer rejection.
- GRSE will issue Money Receipt against EMD submitted by way of DD/PO.
- Refund of Earnest Money Deposits
 - EMD of unsuccessful bidders will be refunded/ returned within 30 days of finalisation of order on surrendering the original copy of GRSE Money Receipt with an application by bidder addressed to HOD of Ordering Department, GRSE on receipt of intimation from GRSE.
 - EMD of disqualified bidders in TNC/CNC will be returned within 30 days from the date of receipt of application along with original copy of Money Receipt from the bidder. EMD, if not claimed within 01 year from the date of notification EMD will be forfeited.
 - EMD of successful bidder will be returned after receipt of security deposit against work order as per contractual terms.

vii. Forfeiture of Earnest Money Deposit (बयाना जमा की जब्ती)

EMD may be forfeited under the following circumstances:

- a. The bidder withdraws the bid after opening of Price Bid during the period of validity of offer.
- b. The successful bidder fails within the specifies time limit to:
 1. Acknowledge the LOA/Order
 2. Furnish the required Security Deposit
 3. Non-performance of the contract by the Contractor
 4. If any registered vendor with Fixed EMD withdraws its bid prior to finalisation of the order and during the period of bid validity, the Fixed EMD as deposited by the vendor shall be liable to be forfeited.

(4) SECURITY DEPOSIT (INTEREST FREE) प्रतिभूति (ब्याज रहित):

- i. Successful bidder will deposit an amount equivalent to the declared Five per cent of the total contract value as interest free Security Deposit (SD) in the form of Pay Order/D.D/Bank Guarantee (with validity of sixty days beyond contract period as per GRSE format) on any schedule bank other than Co-operative bank payable at Kolkata, duly crossed favouring Garden Reach Shipbuilders & Engineers Limited., within 15 days from the date of Purchase Order. In case of non-submission of SD as per schedule, penal interest will be charged for delayed period of submission of SD beyond 15 days at the prevailing SBI cash credit rate on the amount of SD to be submitted.
- ii. If S.D is submitted in the form of B.G. then same should be executed on the non-judicial stamp paper of Rs.100/- which should be obtained in the name of the executing Banker. Bank guarantee must explicitly mention GRSE SAP PO no. else B.G. will not be accepted. In case a single stamp paper of Rs.100/- is not available, stamp paper of multiple denomination is acceptable provided serial no. of such stamp paper are consecutive and are purchased on the same date. Bank Guarantee should be executed strictly as per GRSE's format. Any alteration in the writing is required to be authenticated by the signatory executing the Bank Guarantee under official seal. Hard copy/Original B.G. must be submitted by supplier's bank in banker's sealed envelope directly to dealing officer of Commercial dept/ordering dept. BG in PDF is to be uploaded by vendor in OBPS portal.
- iii. S.D. amount would be refunded / returned after successful execution of the job and certification of Material Reconciliation Statement by Internal Audit, if applicable. Vendor is to apply for release of their SD along with Job Completion Certificate which has to be certified by PL/Engineer-in-charge of GRSE through GRSE Ordering Dept. In the event of failure to execute the order satisfactorily or default by the contractor/ sub-contractor, the security deposit will be forfeited.

(5) COMPLIANCE OF ESI & PF (ईएसआई और पीएफ का अनुपालन):-

- (a) Compliance of ESI & PF of the engaged workman is the responsibility of the contractor.
- (b) For execution of job inside GRSE premises, vendor has to obtain clearance from HR Dept. regarding statutory compliance of minimum wages, PF, ESI, etc. of their engaged workmen for release of payment.

(6) GST REGISTRATION (जी एस टी पंजीकरण):- The vendor will have to submit copy of GST registration certificate (Part A & Part B) along with the Technical bid. Any bidder without having GST Registration Certificate will not be considered for Ordering.**(7) GUARANTEE PERIOD(गारंटी अवधि):**

Workmanship will be guaranteed for satisfactory performance for a period **as stated in NIT.** Any faulty work carried out by the sub-contractor is to be rectified by them within the time stipulated by the GRSE. In case of failure of sub- contractor to meet the ship's programme, outstanding deficiencies shall be rectified by GRSE and all costs of such work shall have to be borne by the sub-contractor.

During guarantee/ warranty period if any equipment or any component thereof supplied by the contractor, suffers due to defective material and/ or due to improper design and/ or due to defective drawing or due to faulty workmanship the contractor will assume full responsibility of rectification of such defective equipment or component thereof including all direct expenses relating to removal and re-positioning of the replacement/ repaired equipment or component thereof and subsequent test & trial, incurred thereon without any financial implication to GRSE.

(8) PRICE(मूल्य):

- i. Price bid need to be filled up (excluding GST) in html template format only through e-portal. No other attachment regarding price will be allowed if so then offer will be treated as cancelled. But for break-up of prices, GRSE may attach excel sheet with the html format price bid and the bidder has to fill up their prices in excel sheet and also in html format as per instruction in NIT.
- ii. L1 bidder will be decided based on quoted total cost / item wise rate / Package wise as mentioned in NIT. GRSE may engage multiple vendors based on production requirement / performance by the vendor. Engagement of multiple vendors against the tender will be as per NIT. *(Not applicable for this single tender enquiry)*
- iii. As a general rule, Price Negotiation with L1 vendor (s) will not be entered into as far as possible, unless warranted by unreasonable price quoted in the opinion of GRSE.

The price should remain firm & fixed till satisfactory execution of the entire contract as per NIT. GST will be paid extra as per the ruling rate. GST registration certificate for the service being tendered is to be enclosed with the techno-commercial bid. If the certificate is not

obtained so far, copy of the application for registration for the service under consideration is to be enclosed. GST registration number is to be quoted in all bills.

(9) JOINT VENTURE (संघठन):

The bids submitted by a joint-venture company of two or more firms/persons/entities as partners/promoters shall comply with the following requirements:

- i) The Joint Venture Agreement must be a registered document under the Indian Registration Act and must be an independent and registered entity under the Companies Act/Indian Partnership Act, having its own trade name and having separate CIN, PAN, GST and other Statutory Licenses/Registrations independent of its promoters/partners.
- ii) All partners/promoters of the joint venture shall be liable jointly and severally for the execution /performance of the project/contract and for all sorts of contractual obligations, responsibilities and liabilities and consequences arising out of breach of terms and conditions of contract.
- iii) A Certified/True copy of the Joint Venture Agreement shall have to be submitted with the bid along with the resolution of Board of Directors (in case of a company) or a Power of Attorney to be executed by all the Partners (in case of Partnership Firm) of JV entity authorizing such person who will sign on behalf of JV entity.
- iv) Submission of EMD /SDs /Performance Guarantee etc., to be made by the Joint Venture Company/Firm and similarly all payments would also be remitted to/in favour of the JV entity.
- v) In order for a joint venture to qualify/meet the minimum criteria as may be specified in the Tender, the experience and financial capability of each of its promoters/ partners would be considered jointly to judge the experience and/or the financial capability of the JV entity as an independent entity. That is to say that the individual experience/qualification of each partner/promoter of the JV would be considered together for ascertaining the experience/qualification criteria of the JV. However, if any specific criteria/qualification is mentioned in the Tender that has to be met by each of the partners, then in such case each of the JV partner/promoters have to meet the same.
- vi) Neither the JV entity nor any of its partners/promoters should have been blacklisted, banned or debarred from issuing any Tender or suffering Tender Holiday from participating in any Tender process of Government of India or any of its Agencies or by any State Government or by an PSU (both Central & State included) or by any Court/Tribunal. If so, then the bid is liable to be rejected.
- vii) If selected, PO would be issued in favour of the JV.

(10) CONSORTIUM(संघठन):

The bids submitted by a Consortium of two or more firms as partners shall comply with the following requirements:

- i) There must be a written Agreement for formation of the Consortium amongst its members which should *inter alia* include the role of each member, the ratio of investment and the ratio of profit/loss sharing. The terms of the Agreement cannot be modified post submission of the bid and during execution of Contract, if awarded, without the express consent of GRSE. The Consortium Agreement must record that as to which member would act as the Lead Member in the Contract/Tender. This authorization shall be evidenced by submitting with the bid a Power of Attorney authorizing such member to act on its behalf as Lead Member, signed by legally authorized signatories of all other partners/members.
- ii) Each partner firm/company of a Consortium must legally authorize its representative who will represent the partner firm/company to sign and execute the Consortium Agreement and all other necessary papers/documents required for the formation of Consortium and all other purpose relating to activities of Consortium.
- iii) The leader shall be authorized to incur liabilities and to receive instruction for and on behalf of any and all partners/members of the consortium and the entire execution of the contract and all other related documents shall be done under the supervision and involvement of the lead member.
- iv) All partners of the consortium shall be liable jointly and severally for the execution of the project or contract without any limitation of liability. Any default or lapse on the part of any of the members of the Consortium regarding performance of the contract will be treated as default on the part of the Consortium as a whole and the Lead Member alone will be responsible for all consequential losses and damages that may be sustained by GRSE for such default or lapse on the part of a member.
- v) A Certified True copy of the Consortium contract/agreement entered into by and between the consortium partners and a certified True copy of the Power of Attorney, referred above, must be submitted with the bid and failure to submit any of such documents will make the bid of the Consortium liable to be rejected.
- vi) If Contract is awarded to the Consortium, an Agreement would be executed by and between GRSE and all the Consortium members wherein, *inter alia*, the role of each member and the mode of payments to be specifically defined and/or mentioned. However, all the consortium members shall remain, jointly and severally, responsible for execution and completion of the Contract and also to make good for all losses and damages if any sustained or to be sustained by GRSE in the subject contract due to default and/or negligence of the Consortium as a whole or of any of its members. Any statement or clause seeking to limit the liability of each member of the Consortium, such statement or clause to be treated as incompatible with the principle of joint and several liability and the bid of the Consortium will be liable to be rejected as not in compliance of tender specifications, without further evaluation.
- vii) In order to qualify/meet the qualification criteria, each of its partners/members or combination of partners/members must meet the minimum criteria set for the individual bidder. Failure to comply with this requirement will result in rejection of the Consortium's bid. The data/figures of each of the partners/members of the Consortium shall be added

together in proportion to their participation in the Consortium, to determine the bidder's capacity as a whole to comply with the minimum criteria.

- viii) The percentage of partnership of the lead partner shall be highest among all the Consortium partners. Bid has to be submitted by the Lead Partner in its name however it should be clearly indicated that the lead partner is submitting such bid on behalf of a Consortium of which it is the Lead Partner.
- ix) The lead partner shall be responsible for payment of Bid Security/EMD as well as the Security Deposit & Performance Guarantee. However, the same has to be submitted by MSME/NSIC firms also if such firm acts as a Lead partner.
- x) All Payments to be made to the Lead Member pursuant to satisfactory execution of the job as specified in the Contract irrespective of the performance by all the members. Payments made to Lead partner of the Consortium would be construed as valid payment. Further the Consortium members agree not to entangle GRSE in any internal dispute between the Consortium members regarding payment/non-payment or any other issue and accordingly waives their rights, if any in this regard.
- xi) None of the consortium partners/members should have been blacklisted, banned or debarred or issued any Tender holiday from participating in Government Contracts by either the Government of India or any of its Agencies or by any State Government or by an PSU (both Central & State included) or by the Courts/Tribunals. If so, then the bid is liable to be rejected.

Note: The Consortium Agreement & the PoA is to be submitted by the Consortium's Lead partner along with the Bid for examination by GRSE. If the Consortium Agreement or the PoA does not meet the criteria as specified in the clause then such bid would be liable to be rejected.

(11) SUB-CONTRACTING OF SUB-CONTRACTED JOB (उप संविदा कार्य का उप संविदा):-

- (a) Sub-Contracting of the Sub-Contracted job is usually discouraged. When a contract is being finalised with a Vendor/ Contractor for execution of a particular job, the Contractor shall not sub-contract the job / a part of the job.
- (b) However, in case of requirement, the job in part or full could be sub-contracted with an approval from GRSE and copy of the same has to be forwarded to Ordering Dept. & HR Dept. for their information.
- (c) For sub-contracting of the sub-contracted job, the Vendor/Contractor has to submit the details of the sub-contractor to whom the job will be loaded including their name, credentials, document of past performance etc. for approval of GRSE Engineer In-Charge/ In-charge of User Dept./Project Leader / Project Superintendent /Head of Units.

(12) EXCESS / WASTE / REJECTED MATERIALS(अतिरिक्त / बेकार / अस्वीकृत सामग्री):-

Removal of excess/waste/rejected materials etc. generated during execution of work should be arranged by the Contractor at their own cost immediately after completion of work each day and for non-removal of same by the Contractor, the expenditure incurred by GRSE (if any) in removing these materials will be recovered from the available dues of the Contractor.

(13) FIRE & SAFETY PRECAUTIONS अग्नि एवं संरक्षा सावधानियाँ - The Vendor/Contractor shall abide by the Safety regulations/rules of the GRSE as detailed in Fire & Safety Guidelines (please refer www.grse.in). The Vendor/Contractor should take all safety precautions and provide adequate supervision & control for their workmen in order to carry out the job safely. In case of any violation of safety precaution and non-usage of safety equipment, Contractor shall be liable for a penalty which is detailed in Fire and Safety Guidelines (please refer www.grse.in). Penalty amount depends on the type and frequency of violation mentioned in the safety guideline and the same will be deducted from the defaulter's bill.

(14) COMPULSORY USE OF ISI MARKED PPE BY CONTRACTOR'S EMPLOYEES: -

The Contractor shall ensure the use of ISI marked PPE by their engaged Employees. An indicative list of ISI marked Personal Protective Equipment, is appended below for mandatory compliance by the vendors without any deviation:

LIST OF PPES

NAME OF PPE	STANDARD
Safety Helmet	IS: 2925 / EN 397.
Safety Footwear	IS 15298 / EN ISO 20345
Safety Goggles	ANSI Z87.1 / EN166.
Ear Plug	IS: 9167/ EN 352
Hand Gloves	(i) IS: 4770 for electrical work (ii) EN 420 for general requirement (iii) EN 388 for mechanical hazard (iv) IS:6994 / EN 407 for heat applications (gas cutting / welding).
Welding Fume Respirator & Dust mask	IS: 9473 / EN: 149
Double lanyard Safety Belt & harness, automatic fall arrestor	IS: 3521
Cotton Boiler Suit Cloth	IS: 177 - 1989 (Amended up to date), Variety 3

Note: Apart from the above-mentioned PPE, vendors may consider any other type of standardized PPE as per job requirement, in consultation with GRSE Safety Department.

(15) ENVIRONMENT MANAGEMENT AND OCCUPATIONAL HEALTH & SAFETY (पर्यावरण प्रबंधन एवं व्यावसायिकस्वास्थ्य सुरक्षा):

- The vendor shall ensure compliance of Environment Management System (ISO14001:2015), Occupational Health & Safety (OHSAS 45001:2018) & Energy Management System (ISO 50001:2018) while carrying out their activity in the yard.

(16) ENERGY CONSERVATION (ऊर्जा संरक्षण):-

GRSE will provide power supply at free of cost for execution of job. You should ensure that the power during execution of job shall be used in a very economical way to save energy as per Energy Management System of ISO 50001:2018.

(17) INSURANCE(बीमा) :- In case the sub-contracted job has to be executed at contractor's premises, the Insurance has to be taken by the contractor with appropriate value coverage for the underlying risks (the beneficiary would be GRSE by endorsement) e.g. Loss due to following:-

- (i) Fire as per AIFT including EQ, STFI at Contractors premises.
- (ii) Burglary including theft during Storage at Contractors premises.
- (iii) Marine transit to and fro as per ITC(A) including SRCC (on the basis of agreed valuation between GRSE & contractors).
- (iv) Loading & unloading including TP liability at all fabricator's premises.
- (v) Loss due to infidelity of contractors whilst in storage.
- (vi) Spoilage of material by contractors by any accidental reasons whatsoever.

If the contractor is unable to take coverage, GRSE will cover such risk and cost of premium will be borne by the contractor/recovered from their dues.

For the jobs which are to be executed inside GRSE premises, Insurance coverage will not be the responsibility of contractor. **(Not Applicable for this tender)**

(18) SITE-INCHARGE / LOG BOOK / HINDRANCE & OTHER RECORDS (कार्यस्थल प्रभारी /कार्य-पंजी एवं अन्य लिखित प्रमाण):

- i. One fully responsible and Qualified Site-in-charge has to be posted at the site during progress of work.
- ii. Attendance Register, Wage Register. Work completion certification by user etc are to be maintained daily for the particular job on board and to be shown as and when required.
- iii. Details of technical personnel deployed for the job.
- iv. Monthly progress report.
- v. Log book for re-work/ modification.
- vi. Details of materials brought by vendor along with copies of challan.
- vii. Proper record of hindrances is to be maintained by the sub-contractor for the purpose of timely removal of the hindrance and is to be put up for approval by Project Leader/Site Engineer on weekly basis. A copy of the same would have to be enclosed while submitting any request for waiver of liquidity damages.

(19) WORKING HOURS (कार्य करने की अवधी):

The Contractor's normal working hours shall be in between 8 AM-5:06 PM from Monday to Friday & from 8:00 AM to 1:00 PM on Saturday. 1st & 3rd Saturday is Non-Duty Saturday. Work may also be required to be carried out in shifts (A, B & G shifts) as per GRSE's requirement. Also, work may be required to be carried out on Sunday/Holiday or beyond

schedule working hours as per requirement of GRSE and the Contractor will have to arrange for same as per NIT Terms.

(20) INDIVIDUALITY OF THE CONTRACT (ठेका की वैयक्तिकता):

This Contract should be treated as an individual contract and should not be related with other orders with GRSE in respect of progress of work or payment.

(21) Sufficient Supervisory Staff should be provided by you during execution of work and in case of any accident/ damage to GRSE properties, full responsibility will be attributed to you and loss incurred will be recovered from the contractor.

(22) SECRECY OF INFORMATION (सूचनाओं की गोपनियता):-

All documents and drawings of this project are of confidential in nature and should be used explicitly for the purpose for which they are provided. Drawings should not be copied and should be returned to GRSE on completion of work.

No information in respect of contracts/orders shall be released to the national or international media or any one not directly involved its execution without the express written approval of the integrated Headquarters, MOD (NAVY). In the event of any breach of above provisions, the vendor would have to make good of any loss/ cost/ damage/ any other claim whatsoever preferred by anybody to GRSE in this respect.

(23) REGISTRATION OF NEW VENDOR (स्वीकृत बिक्रेता का पंजीकरण):

The contractor has to confirm if they are registered with GRSE and Indicate Vendor Code (5 digits) and Product Code group accordingly in their offer. If the contractor is not registered with GRSE, then documents required for provisional vendor registration has to be submitted to the Ordering Department. For Permanent Vendor Registration with GRSE, the contractor has to submit their application to GRSE Vendor Development Cell.

(24) CONTRACT WORKMAN WAGE PAYMENT (ठेका श्रमिकों की मजदूरी): -

Payment of wages to the contractor's employee/workmen should be made through individual bank account on monthly basis instead of cash payment. PF-UAN activation of all the contractor's employee/workmen is mandatory. **(Not Applicable for work outside GRSE)**

(25) In case of Limited tender any bidder is not interested to quote, Vendor's confirmation of having received the tender but not willing to quote / regretting to quote, must be forwarded for GRSE reference & records. This should be treated as a requirement for the Vendor's name to be retained in GRSE's select list. In case where a particular Vendor has not responded to tender enquiry for more than 3 times, its name will be liable for de-registration.
(Not applicable for this single tender enquiry)

(26) INSPECTION (निरीक्षण):-

(i) Quality assurance authority: As per NIT/SOTR.

(ii) Inspection to be carried out stage wise by Quality Assurance Authority. On completion

of work for any stage, vendor has to submit Inspection Offer to GRSE (Inspection Agency) for stage inspection. GRSE (Inspection Agency) shall co-ordinate with the Outside Inspection Authorities (as applicable) for carrying out inspection of completed job.

- (iii) GRSE reserve the right to inspect all operations to be carried out by the contractor. Free access to the work site at all the time shall be ensured by contractor. The presence or absence of GRSE representative does not relieve contractor of the responsibility for quality control. The contractor shall provide all assistance for carrying out inspection of completed work.
- (iv) Repeat inspection for any particular job is to be discouraged as far as possible. Hence the vendor should complete the job in all respect prior to submission of Inspection Offer to avoid reoffering. In case of repeat inspection happens for more than two occasions then the additional cost implication incurred by GRSE will be deducted from the bills of the vendor at actual. Number of occasions of repeat inspection for any particular job is to be indicated by GRSE in inspection note and same is to be incorporated in the work done certificate for deduction of additional cost implication for repeat inspection. Cost of deduction shall be calculated by Executing Dept., GRSE with the help of Finance Dept., GRSE.

(27) FORCE MAJEURE (फोर्स मेजयोर):

In the event of contractor being unable to fulfil the obligation under the agreement owing to force majeure, such as War, Fire, Earthquake, Flood, Strike/ Lockout at GRSE premises where the contractor is working, the party affected shall not be held responsible for any failure or non-performance of the duties and obligations under the agreement, provided that all responsible efforts have been made to overcome the consequences of such failure, or non-performance. The time for performances of the contractual obligation shall then be extended by period not more than the duration of such events.

In the event of Force Majeure condition existing at contractor's site in GRSE Premises or CPT areas for GRSE work, GRSE is to be intimated with details of such happenings and cessations thereof, within 3 days. Force Majeure is to be limited to contractor's site in GRSE/CPT premises for GRSE's work only. Lock out/ Closure of contractor's factory premises or office or any other place outside GRSE/CPT/GRSE nominated place as indicated above cannot be considered as a Force Majeure condition under this contract.

(28) TERMINATION OF CONTRACT (अनुबंध की समाप्ती): In the event of non-performance or non-engagement of manpower for the execution of the job within the notice period, GRSE reserves the right to cancel the order in part or in full, and no compensation whatsoever will be entertained.

(29) DAMAGE OF MATERIALS / EQUIPMENTS (समान / उपकरण की छति): The contractor will ensure that no damage is caused to the materials, equipment or any other property of GRSE

due to negligence and / or any reason whatsoever by the contractors man. The cost of damage will be suitably recovered from contractor's bills.

(30) OFFICE & STORAGE SPACE (कार्यालय & भंडारण): The contractor will have to arrange their office & storage required for execution of job, for cumulative order value of Rs.75 lakhs and above, of their own. However space for placing up to one container will be provided free of cost by GRSE. Container will have to be removed by the contractor within 03 months from the date of final settlement with GRSE. In case of non-removal of container within specified period penalty as deemed fit will be imposed for the occupied area of GRSE.

(31) ARBITRATION (मध्यस्थता):-

- i) If at any time, before during or after the contract period, any unsettled claim, question, dispute or difference arises between the parties, upon or in relation to or in connection with or in any way touching or concerning this order, the same shall be settled/adjudicated through Arbitration to be conducted by a Sole Arbitrator, to be appointed by the parties on mutual consent, in accordance with the provisions of the Arbitration and Conciliation Act, 1996.
- ii) In the event the parties fail to mutually appoint a Sole Arbitrator within 30 days from the receipt of a request by one party from the other, then either of the parties may approach the Hon'ble High Court at Calcutta under the provisions of the Arbitration and Conciliation Act, 1996 for appointment of a Sole Arbitrator by the Hon'ble Court.
- iii) Such arbitration shall, in all respects, be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and the rules framed there under or any statutory modification or re-enactment thereof for the time being in force.
- iv) The Award of the Sole Arbitrator shall be final, conclusive and binding upon the Parties.
- v) In the event of the death or resignation or incapacity or whatsoever of the said Sole Arbitrator if appointed by the parties mutually the said parties may again appoint a suitable Substitute Arbitrator in place of the erstwhile Sole Arbitrator to continue with the proceedings. In the event of appointment of the Sole Arbitrator by the Hon'ble High court at Calcutta on death or resignation or incapacity or whatsoever of the said Sole Arbitrator, either of the parties in this behalf, may make an application to the Hon'ble High court at Calcutta for appointment of a Substitute Arbitrator and the Hon'ble Court may pass such orders as it deems fit and proper.
- vi) Also in the event an Arbitration award is set aside by a competent court the parties may appoint a Sole Arbitrator mutually or on failing to appoint a Sole Arbitrator mutually within the statutory period then either of the parties may file an application before the Hon'ble High Court at Calcutta under the provisions of the Arbitration and Conciliation Act, 1996 for appointment of a Sole Arbitrator by the Hon'ble Court in accordance with the provisions of the Arbitration & Conciliation Act.

- vii) The cost of the arbitration, fees of the arbitrator, remuneration of the stenographer and clerk, stamp paper etc. shall be shared equally by the parties, unless otherwise directed by the Sole Arbitrator. The venue of arbitration shall be at Kolkata and unless otherwise decided by the parties or by the Sole Arbitrator himself, the venue shall be the premises of Garden Reach Shipbuilders & Engineers Ltd. located at 43/46, Garden Reach Road, Kolkata 700 024.
- viii) The language of the proceeding shall be in "English."

(32) JURISDICTION (न्यायअधिकार क्षेत्र):

Litigation, if any, pertaining to this contract will come under the jurisdiction of High Court at Kolkata.

- i) All contracts shall be deemed to have been wholly made in Kolkata and all claims there under are payable in Kolkata City and it is the distinct condition of the order that no suit or action for the purpose of enforcing any claim in respect of the order shall be instituted in any Court other than that situated in Kolkata City, West Bengal State, India.
 - ii) The Firm is warranted that all service rendered by them shall conform to applicable city, states & central laws, ordinances and regulations and the said Firm shall indemnify / defend / relieve GRSE harmless , from / of against loss, cost of damage, by reason or any actual or alleged violation thereof.
 - iii) GSRE shall not be liable under the workmen's compensation Act of 1923; in case any employee or workmen receives injury while actually serving his employer in connection with the latter's work inside the compound of GRSE Ltd.
 - iv) All existing applicable Laws such as ESI, PF, SERVICE, CONTRACT LABOUR, CHILD LABOUR etc. as applicable, shall be binding for the contract.
1. For any discrepancy between NIT (Notice Inviting Tender) and STAC, NIT statement may be taken as final.
 2. Clarification required, if any, regarding Tender Document, should be got resolved by contacting competent authority of GRSE prior to submission of bid.

Annexure-2A
APPENDIX- A

**CHECK LIST OF STATUTORY RESPONSIBILITY OF CONTRACTOR
THE CONTRACT LABOUR (R& A), ACT, 1970 AND CENTRAL RULES, 1971**

SL. NO.	NATURE OF STATUTORY REQUIREMENTS	FORM NO.	RESPONSIBILITY	REMARKS
01	Labour License	Form –II	Contractor	Contractors engaging 20 or more contract labours would apply for obtaining labour license (in triplicate) to the ALC (C), Kolkata. A copy of the license should be submitted to concerned Unit HR Department. <i>Note:</i> The Contractor cannot deploy more than the number of workmen mentioned in the license on any day.
02	Renewal of labour license	Form –II	Contractor	The contractor shall apply to the ALC(C), Kolkata for renewal of license at least 30 days prior to its expiry. A copy of the acknowledgement / renewed license should be submitted to concerned Unit HR Department.
03	Notice for commencement / completion of work	Form-VII	Contractor / Principal Employer	The contractor shall submit Form – VII to the Inspector / Labour Enforcement Officer (C), Kolkata within 15 days intimating the actual date of commencement / completion of the work. The receipted copy of Form – VII should be submitted to concerned Unit HR Department.
MAINTENANCE OF REGISTERS				
04	Employee Register	FORM – A	Contractor	Comprising of personal details like name, father's name, DOB, Address etc. of the workmen engaged by the contractor.
05	Wages Payment Register	FORM – B	Contractor	Comprising of current rate of minimum wages, employees PF & ESI contribution and other allowances, if any.
06	Register of Loan / Recoveries / Fines etc.	FORM – C	Contractor	To maintain record of loans, fines and advances given, if any and monthly record of recoveries.
07	Attendance Registers	FORM – D	Contractor	Data of daily attendance of each workmen engaged by the contractor indicating their in and out time.

SL. NO.	NATURE OF STATUTORY REQUIREMENTS	FORM NO.	RESPONSIBILITY	REMARKS
08	Employment Card	Form – XII	Contractor	Every contractor shall issue employment card / appointment letter to their contract workers within 03 days from their date of employment.
09	Service Certificate	Form – VIII	Contractor	To be issued by the contractor upon termination of employment / completion of work etc.
10	Wage-slip	Form – XIX	Contractor	Contractors shall issue wage-slip to their workmen at least 01 day prior to disbursement of wages.
11	Annual Return	Online Submission	Contractor	Every Contractors shall prepare Annual Return for the previous year which is submitted online by the Contractors' in <i>Shram Suvidha</i> Portal to the Registering Officer within 31st Jan of the following year.

**CHECK LIST OF STATUTORY RESPONSIBILITY OF CONTRACTOR
COMPLIANCE OF OTHER STATUES FOR ENGAGEMENT OF CONTRACTORS' WORKMEN**

Sl. No.	Relevant Statues	Responsibility	Compliances to be ensured as per the Statute
01	The Factories Act, 1948 & West Bengal Factories Rules, 1958	Contractor	<p>1. <u>Leave with Wages</u>: Every worker who has worked for a period of 240 days or more is entitled to get leave with wages to be calculated one day for every 20 days of work performed by him.</p> <p>2. <u>Payment of Overtime</u>: Where a worker has worked for more than 09 hours in any day or for more than 48 hours in a week, he shall, in respect of overtime work, be entitled to wages twice the hourly rate.</p> <p>3. <u>Hours of Work</u>: The total nos. of hours of work in a week, including overtime, shall not exceed sixty.</p> <p>4. <u>Hours of Overtime</u>: The total hours of overtime shall not exceed fifty in any quarter i.e. during three consecutive months for any worker.</p>
02	Payment of Wages Act, 1936	Contractor	Contractors (employer) engaging less than 1,000 persons have to pay wages before expiry of the 7th day after the last day of wage period.
03	The Minimum Wages Act, 1948	Contractor	Contractors (employer) shall pay minimum wages to every worker as per the Central rates circulated by the Management from time to time.
04	The EPF & MP Act, 1952	Contractor	<p>1. Every contractor shall obtain the following before commencement of work:</p> <p>(a) PF Code No. of the firm.</p> <p>(b) PF UAN i.r.o of the workmen engaged by him.</p> <p>(c) Ensure submission of nominee and dependent details while applying for UAN of workmen.</p>
		Contractor	<p>2. Every contractor shall contribute towards PF @ 12% of the monthly wages of each workman as employer's share and recover 12% of monthly wages from each employee, as employees share and thereafter remit the entire amount to EPFO i.r.o every workman engaged by him. The contribution for the preceding month should be remitted prior to expiry of the 15th day of the following month. Contractors (Employers) are also required to bear the administrative charges as applicable.</p>

Sl. No.	Relevant Statues	Responsibility	Compliances to be ensured as per the Statute
05	The ESI Act, 1948	Contractor	1. Every contractor shall obtain the following: a) ESI Code No. of the firm (b) ESI code no. i.r.o of the workmen engaged by him (c) Ensure submission of nominee and dependent details while applying for ESI TIC (E-Pehchan Card).
		Contractor	2. Every contractor shall remit ESI contribution (employers' share @ 3.25% and employees' share @ 0.75%) i.r.o every workman engaged by him for the preceding month prior to expiry of the 15th day of the following month.
06	The Payment of Bonus Act 1965 & Rules	Contractor	1. Contractors shall pay annual bonus to their workmen (Contract Labour) drawing wages below and upto Rs. 21,000/- per month. Bonus will be payable minimum @ 8.33% and maximum @ 20% of annual wages.
		Contractor	2. Register in Form - C format {Rule 4(b)} of 'The Payment of Bonus Act, 1965' is to be maintained by the contractor for submission of Annual Return as per the Act.

APPENDIX - BRESPONSIBILITIES OF CONTRACTORS OVER AND ABOVE THE STATUTORY REQUIREMENTS

- (i) Contractors shall take all necessary steps for disbursement of wages through bank-transfer and issue a payment notice at least 02 days prior to such bank-transfer for information of respective unit HR Dept. as well his workers. (should be incorporated in the contract document in the Payment Terms).
- (ii) All contractors should obtain labour-licenses prior to commencement of work. Principal Employer shall not allow any contractor without license.
- (iii) All outsourced jobs are required to be supervised by a Supervisor duly appointed by the Contractor. The contractor should declare the name and contact number of the supervisor(s) against each P.O before commencement of work and submit the details of the supervisor(s) to the respective unit HR Department. He should keep adequate nos. of supervisors to supervise and co-ordinate the execution of job by contract labours. (The principal employer must check that the name and number of the supervisor which has been provided by the contractor, whether the same person is coming as the said supervisor).
- (iv) The supervisor's name should not be mentioned in the employee register as he is not a contract labour.
- (v) Supervisor of concerned contractor should be present in the work-site where the contract labours of the concerned contractor are supposed to work. To ensure the presence of the supervisor, their attendance may be recorded by the user department on daily basis.
- (vi) Contractor should mention the name of his Supervisor / agent / manager in Form-II which is to be submitted to ALC (C) for obtaining labour license.
- (vii) The supervisor should maintain the attendance register of their contract labours (Form-D) which may be randomly checked by the Officers of the user department. This attendance register will be submitted by the contractors on monthly basis along with the wages-payment registers to the respective unit HR Depts. for obtaining certification of payment of wages to each contractor labour based on their daily / monthly attendances.
- (viii) Contractors must submit details of their firms in the Appendix B1 format prior to commencement of work. They must also submit details of their contract labours in B2 formats for making new gate-passes for the purpose of entry / exit prior to the engagement of such contract labour.

APPENDIX - C

DO'S & DON'TS FOR THE ENGAGING / USER DEPARTMENTS

➤ DO's FOR ENGAGING / USER DEPARTMENTS

- (i) PF & ESI Code No. : The contractor / sub-contractor should have a valid PF & ESI code no. of his own Company / firm.
- (ii) It is desirable to have a clear date of commencement and completion of contract mentioned in the Purchase Orders (P.Os)
- (iii) Contractors should give the details of the firm to which the job is being sub-contracted to the engaging authority along with an undertaking to comply with all the statutory provisions and liabilities of the contract workmen engaged by the sub-contracting firm in case of any default by the sub-contracting firm. (It is actually an indemnity – when the main contractor sublets the work and if the sub-contractor asks for Form V which is now Form III then the contractor, who has got the work assigned, shall give an indemnity bond to the Principal employer). **A copy of this undertaking by the Principal Contractor and sub-contractor should be submitted to HR Dept.**

➤ DON'T's FOR ENGAGING / USER DEPARTMENTS

- (i) Officers should not supervise the activity of the contractors' workmen (Contract Labours) directly.
- (ii) The Officers of user departments/ respective dept. should deliberate with supervisors of the contractors who, in turn, will instruct the contractors' workmen (Contract Labours) regarding the job to be undertaken.
- (iii) GRSE, as a Principal Employer should not undertake any direct disciplinary action against a Contract Labour. Only in case of POSHA the Principal Employer can take an action.
- (iv) No Officers of user departments should sign any application of contractors' workmen (Contract Labour) relating to attendance, leave, OT, gate-passes etc. or issue any communication / advisory note / written instructions regarding any contractors' workmen (Contract Labour). For all such requirements, the Officers are required to operate through the supervisors of the concerned contractors.
- (v) It is advisable that there should be **break-in service** (cooling-off period - as per law) for the contractors' workmen (Contract Labour) before commencement of new contract. The principal employer shall check with the leaving contractor that, there are no dues towards the respective contract labours. And while going to execute a new contract with another contractor the principal employer shall incorporate in the contract document that "no contract labour shall be borne in two master rolls".



Annexure-2B**APPENDIX-'D'.****परिशिष्ट 'डी'****GENERAL REQUIREMENTS सामान्य आवश्यकताएँ:**

- (a) All your personnel will be subject to routine physical search and checking of Identity Cards at any time during the deployment.
- (b) During the engagement of Contractors, if anybody gets involved in any police case or gets himself involved with quarrel with GRSE employees or other contractor's workmen engaged in GRSE, his entry permit will be withheld forthwith.
- (c) A certificate from the contractor's labour, clearly endorsing that characters of all his labourers have been duly verified and found to be satisfactory be submitted to GRSE at the time of making gate Pass.
- (d) Photo Identity Card /Gate Pass as required by GRSE will be arranged by the contractor for his employees at his own cost.
- (e) No workman of the contractor will be allowed to join or participate in any Gate Meeting/ Demonstration inside or at GRSE Gate.
- (f) During the course of engagement with GRSE, if any individual's character is found to be not satisfactory, on verification of specific complaint received, entry permit will be withdrawn forthwith. Entry / Exit will be allowed only in presence of proper Supervisory staff of the contractor. No workman of the contractor will be allowed to loiter around in the yard leaving the specified space of work.
- (g). Police Verification Report of character antecedents duly verified by DIB in respect of all employees of contractors/Sub-contractors for operating in GRSE Ltd. are required to be submitted to Security Dept./GRSE Ltd. before processing of Gate Passes.

This requirement is as per Official Secretariat Act, 1923 of Ministry of Home Affairs, Govt. of India.

- (h) One fully responsible and qualified Site In-Charge has to be posted at the site during progress of work.
- (i). The contractor will ensure that no damage is caused to the materials, equipment or any other property of GRSE due to negligence and /or any reason whatsoever by the Contractor's men.
- (j). The contractor will work when the ship will be at FOJ/Main Yard/CPT Dry Dock/ any other place/Dock near GRSE in the event of work being carried out outside GRSE premises.
- (k) The contractor shall have to follow all the rules and regulations of other Docks/places in the event of work being carried out outside GRSE premises.
- (l). for any exigencies and for stock taking or for any other reason deemed valid by GRSE, GRSE reserves the right to suspend the work as required, without any compensation to the contractor.

APPENDIX 'E'

(Revision 5.0 dated 25.11.2025)

**SAFETY GUIDELINES TO BE ADOPTED BY THE CONTRACTORS
AT GRSE PREMISES**

1. **General.** The GRSE has started adopting the outsourcing route for meeting various production, maintenance and construction requirements needing involvement of outside agencies /contractors firms having their own employees and set-up. These contractor firms besides other obligations like PF, ESI, Minimum Wages are bound to be adopting and implementing safety norms, fire precautions and also become liable for facing legal consequences arising out of non-compliance of provisions contained under The Factories Act, 1948 and Rules framed thereunder. As such, the contractors will be governed by all the statutory requirements. Accordingly, the contractor shall ensure fulfillment of safety guidelines laid down by Safety Department of GRSE. The contractor shall provide proper Personal Protective Equipment (PPEs) and tools & tackles to their workmen. In case of non-compliance, the GRSE reserves the right to impose penalty for any of the following reasons: -

- a) Unsafe acts being adopted by the individual workman and/ or the contractor.
- b) Non-compliance to safety norms and contract terms.
- c) Creating unsafe conditions at place of work.
- d) Serious accidents due to the reasons mentioned under (a), (b) & (c) above.

Safety Rules.

2. The Contractor firm shall abide by the safety rules framed under "The Factories Act, 1948" and shall take all safety precautions, provide adequate **supervision & control** for his workmen in order to carry out the job safely. The Contractor shall report to the concerned Officer of executing Department as well as the Chief Safety Officer of Safety Department immediately on award of contract along with contract documents & job instructions from the contract awarding Department and shall obtain brief for the job and the safety rules & procedures to be followed. The Contractor shall obtain clearance from Safety Department before starting the job. The contractor shall engage workers to do the contract job only when he is satisfied that the unsafe conditions, if any, of gas / electricity / moving machinery etc are removed from the area of work. The Contractor shall supply required PPEs like safety-shoes, helmets, hand gloves, safety goggles etc. depending upon working condition(s). Further, the contractor shall be liable for adopting any other PPE recommended by Safety Department.

3. The necessary safety precautions, proper tools and equipment including personal protective equipment for contractors' men are to be arranged by the contractors for safety of the personnel employed by them. **The Site In-charge of the firm shall be accountable to the respective Officer of the executing Department in all matters related to safety of their personnel at work including all activities carried out by them.**
4. The Contractor shall take all reasonable precautions to prevent fire of any nature arising out of his operations and shall be held accountable for all damages from fire resulting due to adopting unsafe practices by any one on behalf of the contractor's firm.
5. Prior to taking part in the subject tender, the contractor firm has to assess all the safety hazards by visiting GRSE at site and **Safety Assurance Plan** must be submitted along with the technical bid.
6. The Contractor shall ensure attendance of their workmen and other personnel deployed by them, in the scheduled safety-briefings before starting of job, appropriate use of required PPEs and adoption of various safety measures in their respective workplaces.
7. The Contractor shall provide adequate and appropriate PPEs conforming to IS / EN standards, as mentioned at PPE table section, at their own cost and ensure that their workmen mandatorily use those PPEs as specified PPE table section or as advised by Safety Department from time to time, according to the job requirement.
8. The Contractor shall ensure submission of PPE Issue Matrix Register to the user department before commencement of work. Such Register should comprise of the name of the contractor, P.O No., name of the workmen being deployed, allotment of PPEs and signature of contractors' workmen substantiating allotment of PPEs to them as per the IS parameter laid down in PPE table.
9. Every contractor should ensure that their workmen have undergone safety training programme, as per their nature of work, prior to commencement of work. Contractor has to submit a report to the engaging / user department after completion of safety training program for obtaining permission to commence work under the particular P.O. A copy of that report has to be forwarded to Safety Department for information and record.
10. In the event of any accident, the concerned contractor / their site In-charges / supervisors must immediately inform the respective dealing officer of user department regarding occurrence of such accident, who in turn will inform Works Manager of the respective unit and Officer from Safety Department for initiation of further necessary action.

11. The Contractor shall ensure that no workman or other personnel deployed by them should loiter or work in shop floor, onboard ship or in the yard without wearing basic PPEs like Safety Helmet, Safety Shoes etc.

12. The indicative standard safety precautions are enumerated below to be adopted by the contractor firms:-

(a) **Personal Protective Equipment (PPEs)**. The contractor shall provide & ensure use of ISI marked Industrial Safety Shoes, Safety Helmets, Retractable type Full Body Harness (Double Lanyard), Welding Fume Respirator, Safety Goggles, Hand Gloves, Boiler Suits & other necessary Personal Protective Equipment (PPEs) depending upon the nature of job while at work. The area of applicability of PPE w.r.t. personal protection is PPE table section.

(b) **Hot Work Safety (Gas Cutting, Welding etc.)**.

(i) Prior to commencement of hot work, surrounding areas (including other side of the bulkhead & deck) shall be inspected for the presence of any inflammable materials and no Hot Work shall be carried out without obtaining **Hot Work Permit** from Fire Fighting Department of GRSE with fill-up of respective checklist and manpower list.

(ii) Adequate ventilation must be arranged while working in confined spaces throughout the period of carrying hot work.

(iii) Damaged gas hoses & welding cables should not be used for gas cutting & welding job. **Use of Aluminum Welding Cable is prohibited during construction activities from fire safety point of view.**

(iv) The gas cutting hose should be separated from welding cables & electric cables.

(v) The welding holders, if energized, should not be left unattended.

(vi) All gas cutting torches shall be ISI marked of reputed make and gas cutting torches, cylinders, portable manifold must be fitted with standardized FLASH BACK ARRESTOR (ISO 5175-part – 1 / IS 11006).

(vii) Full insulated welding holders (ISI marked IS 2641 / EN 60974) shall be used in construction jobs and it shall be good condition.

(viii) During recess period (Lunch time and at the end of day's work) or when work is suspended for more than half an hour, the gas cutting

hoses shall be disconnected from the cylinder valves and removed inside from ship and keep the same in an open area / Main Deck.

(ix) All gas equipment shall be subjected to "Water Dip" test daily, before taking those on board. A record of the testing to be maintained by the person carrying out such test.

(x) Electric power shall be cut off from welding transformer end during recess period, at the end of day's work.

(xi) During hot work activity at the overhead location and on the bulk head, a person must be deputed at the opposite side of hot work from fire safety point of view.

(xii) Use of LPG for gas cutting is strictly prohibited in the shipyard.

(xiii) Always one responsible person is to be deputed at opposite side of deck / bulkhead / overhead position for continuous surveillance during hot work.

(xiv) Gas Cutting Hoses (IS: 447) and Gas Cutting Torches (IS: 7653) are IS Marked.

(xv) Welding Cables are IS Marked (IS:9857) & defect free.

(xvi) Gas pressure regulator shall be good condition and as per IS 6901.

(xvii) All the D.P. (Dye Penetrant) canes (as flammable one) to be kept in metal box, covering with fire-retardant cloth.

(c) **House Keeping.**

(i) All inflammable wastes like cotton waste, plastic, broken wooden planks / parts, jute, cloth, electrodes packets, paper cartoon, refused cable insulation etc. should be removed by the contractors from the ship every day.

(ii) Gas cutting hose & welding cables shall not be used / laid on board in a haphazard manner and to be hanged properly on suitable hook / support towards avoiding fire & electrocution hazard.

(iii) AC Ducts are to be placed properly to avoid stumbling hazard on board vessels.

(iv) Ingress /exit hatch must be cleared.

- (v) Iron dust generated from gas cutting, grinding and welding butts must be removed immediately after completion of the Job to avoid any slip & trip hazards.
- (vi) Leakage/ Seepage of hydraulic oil, lube oil on deck floor are to be removed at the earliest to avoid fall hazards & residual diesel /leakage/ seepage must be removed due to fire hazard/slip hazard.
- (vii) Residual Paints/ paints drums, thinner, D.P. containers & hardener containers etc. must be removed from ship after the Job completion or during the recess hours by the contractors.
- (viii) All housekeeping staff must be wear proper ISI marked PPE's like – Safety Shoe, helmet, gum boots, hand gloves, rubber hand gloves, goggles and musk etc.
- (ix) During cleaning of water from ship's tank / compartment, no personnel should be allowed to work in bare foot. All such cleaning personnel should use "RUBBER GUM BOOT".

(d) Electrical Safety.

- (i) Portable Safety Hand Lamp (24 Volts) should be used on board vessel.
- (ii) All electrical connections should be of permanent type as far as possible.
- (iii) Industrial type Plug & Sockets shall be used for electrical connections.
- (iv) Mandatorily use of Industrial Type Extension board (proper earthing) with industrial plug and industrial socket with MCB in conjunction with RCCB.
- (v) Use of Damaged Electrical Extension Board (i.e. without having MCB, damaged Plug & Socket) is prohibited.
- (vi) The 440 V / 220 V supply lines should be provided with distinguishing mark & identified with red stickers at every meter distance.
- (vii) 440 Volt supply lines should be taken at overhead location.

(viii) Armoured cable to be used for 440 V power supply from shore to on board vessel.

(ix) Use of 440 V Welding Machine is strictly prohibited in side ship's compartment / confined spaces. However, under inescapable situation it may be permitted for specific reason / requirement, subject to approval PL / PCO of the ship, L&W Department and Safety Department.

(x) The dedicated electrical panel of the Welding Machine should be earthed at two separate points.

(xi) The electrical panel and Welding Machines placed on board vessels should be covered with metallic shed to prevent ingress of rain water and be secured on the Main Deck alongside the railing to prevent inadvertent fall due to stormy weather.

(xii) Electrical rubber mat should be placed in front 440 V electrical panel.

(xiii) 440 V electrical cables of the Welding Machine should be taken overhead (at least above the man height) for preventing any damage due to contact with sharp edge or hot work from the below deck.

(xiv) Suitable Canopy to be provided over welding machine to prevent ingress of water.

(xv) Electrical cables should be separated from Signal cable, Gas Hose, Compressed air line, Welding cables etc. (i.e. Electrical cables should not be entangled with Signal cable, Gas hose line, Compressed air line, Welding cable line etc.)

(e) **Safety during Painting.**

(i) Painting work should not be undertaken, while hot work is in progress either in the compartments or in the adjacent areas.

(ii) A board indicating "Painting in Progress" in Hindi, Bengali & English be displayed near entrance of the compartment.

(iii) While painting, a safety hand lamp fitted with insulated handle, wire case and glass cover over the lamp shall only be used.

(iv) While painting in confined space / closed compartments, one person must be posted near the entry point for constant coordination with the person working inside the confined space.

(v) During spray painting activity, Work Permit to be taken by the contractor firm as per GRSE norms.

(vi) While painting is to be carried out in the compartment, suitable ventilation system (exhaust as well as fresh air) should be arranged during painting, and after painting, to prevent accumulation of inflammable gas/ fumes inside the compartment. Fresh air shall be taken from ship's Main Deck or available nearest open Deck. Suitable exhaust ventilation arrangement shall be made available for dispersal of Paint fumes from the ship's confined spaces / tanks at the outside of the ship's compartment in to the open air, so that the discharged paint fumes does not affect / influence the adjacent area of work / compartment / tanks.

(vii) Ventilation of the compartment should be continued at least for 24 hrs. after the spraying is stopped (or) until the compartment is gas free, whichever is longer.

(viii) Storage of paints / thinners, other Inflammable materials are not to be allowed on board ship.

(ix) Regularly all empty or in use paint drums/chemical /substance must be removed from the vessel immediately after completion of work & handover used/empty drum to the Paint Shop in charge.

(x) Safety hand gloves, safety goggles and face mask respirator, fitted with suitable filtering media / canister should be used during painting.

(xi) During painting activity inside the confined spaces the painter must use either Full Face Piece type respirator fitted with Supplied Air Line from the outside of the ship or Full-Face Mask Respirator fitted with suitable filtering media / canister which will give protection against the paint fumes inside the confined spaces as per recommendation of the OEM of the PPE. Helper shall use Full-Face Mask Respirator, fitted with suitable filtering media / canister, which will give protection against the paint fumes as per recommendation of the OEM of the PPE.

(xii) Pre-employment & Periodical Medical Health Checkup (quarterly / half yearly) of all the painters are to be carried out through qualified MBBS Doctor & Report to be submitted at GRSE Medical Department

through Paint Shop to issue Fitness Certificate of the painter prior to deployment at GRSE.

(xiii) Only non-sparking spray guns and tools should be used. Metal parts of paint brushes and rollers should be insulated. Staging should be erected in a manner which ensures that it is non-sparking.

(xiv) The vendor should close the painting permit after their day's work & return back the original permit to Paint shop.

(f) **Safety during Grinding.**

(i) All grinding machines shall be provided with standardized & non-expired grinding wheels of reputed make and shall be fitted with protective metal guards during grinding job.

(ii) Use of oversize grinding wheel is strictly prohibited.

(iii) All grinding wheels shall be of reputed brand & make and shall be stored / handled carefully prior to taking into use.

(iv) Damaged grinding wheel shall be replaced forthwith for avoiding likely hood bursting of the wheel.

(v) Suitable impact resistant Safety Goggles / Transparent Face Shield to be used for protection of eyes against foreign body.

(vi) Double insulated type portable Grinding Machines to be used.

(vii) Grinding work often produces sparks that can easily get into holes or gaps in floors, walls, and ceilings, or may fall on combustible materials. Therefore, foremost requirement is removing of flammable and combustible materials and liquids within a 5-metre radius of the work. If overhead hot work needs carrying out, then you may need to extend this radius. It must ensure that the atmosphere does not contain flammable or explosive vapours, gas, dust, painting fumes etc. Also cover these areas with suitable flameproof sheeting, purpose-made blankets, drapes, or screens before commencing grinding work.

(viii) Do not drop grinding wheel on the floor. Don't use damaged plug top and electrical cables.

(ix) Make sure the rotation of wheel is downwards against the job.

- (x) Make sure a machine will not run when unattended, by checking the dead main switch.
- (xi) Always use the side handle installed on the grinder to hold it firmly.
- (xii) Don't adjust work while the grinding wheel is in motion.
- (xiii) Don't wear loose clothing, articles, or jewelry while grinding.
- (xiv) Don't clean or make any adjustments on a moving grinder.
- (xv) Wear all appropriate safety gears like safety helmet, shoe, transparent face shield/safety goggles, hand gloves, ear plug/muff, dust respirator (if required) etc.
- (xvi) Before installing an abrasive wheel, visually inspect it for cracks or flaws and perform a "Ring Test".
- (xvii) Make sure the disc speed limit (rpm) is greater than the angle grinder operating speed.
- (xviii) Always use wheel guard during grinding. Ensure the wheel guard opening is opposite to the body.
- (xix) All grinding machines shall be provided with standardized & non-expired grinding wheels of reputed make and shall be fitted with protective metal guards during grinding job.
- (xx) Ensure the correct flange and locking nut is used for the type of disc. Otherwise the disc can shatter at high speed.
- (xxi) Allow the grinder to "run up" to operating speed before applying it to the job. Before starting the grinding work with a new grinding wheel, run the machine for 1 minute freely.
- (xxii) Ensure the grinder operates smoothly and does not vibrate.
- (xxiii) Hold the grinder against the work piece with minimum pressure so the disc doesn't "dig in" and cause it to kick back.
- (xxiv) Never put a grinder down until the disc stops rotating.
- (xxv) Disconnect power before changing discs.

(xxvi) Ensure angle grinders have a cut-off switch.

(xxvii) Do not carry a grinder by the power cord. Do not pull on the power cord to disconnect it from the power supply.

(xxviii) Never use a cut off wheel for grinding or a grinding disc for cutting.

(xxix) Dispose of any disc that has been dropped, Cracked or weakened discs can shatter in use.

(g) **Safety while working at height**

(i) Suitable scaffolding structure having working platform of adequate strength with fencing shall be provided for workmen for all works that cannot be done safely from the ground/low level.

(ii) Damaged / defective wooden planks shall not be used for staging purposes.

(iii) Wooden planks are to be secured at both ends for preventing over turning of the planks.

(iv) Use of oil drums for staging purpose is strictly prohibited. The Steel Stools / staging materials are to be used for staging purpose and to be used in safe manner.

(v) While working at height, from where a person is likely to fall and injured, **retractable type Full Body Harness with double lanyard** shall be used with proper anchorage to the life line / rigid structure.

(vi) Every floor opening shall be securely guarded.

(vii) Automatic Fall Arrestors must be used for ascending / descending purpose.

(viii) Rigid point is to use for anchoring of Safety Belt double lanyard full body harness) /Life Line.

(ix) Safety Net of suitable mesh size is to be provided underneath the job location while working at height work.

(x) Loose material should not be kept / store unnecessary on scaffolding structure platform.

(xi) Workmen engaged for hot work at a certain height /on roof have to remove or enclose the underneath flammable materials (if any) with fire retardant cloths before starting of the job. Also cordoning the underneath area.

(xii) A Bosun's chair (or Boatswain's chair) with double lanyard full body harness should be used for cleaning & painting of high rise building (where scaffolding is not possible to erect).

(xiii) Passageway, or a scaffold, platform or any other working elevated surface which is in a slippery and dangerous condition should not be used and water, grease, oil or other similar substances which may cause the surface slippery shall be removed or sanded, saw dusted or covered with suitable material to make it safe.

(xiv) Before starting of height work, height Work Permit to be taken by the contractor firm as per GRSE norms. The vendor should close the height Work Permit after their validity of work & return back the original permit to Civil Dept./ to the height work permit issuing department (as the case may be).

(h) **Safety during erection of scaffolding structure:**

(i) The scaffolding platform shall be provided with suitable railing, toe guard & waist guard on each open side and shall be secured at both ends for preventing overturning of the planks.

(ii) All personnel, engaged for erection of scaffolding structure must wear safety belt (double lanyard full body harness).

(iii) All scaffolding materials such as steel tubular pipes, couplers are to be in good physical condition.

(iv) Stability of the scaffolding structure to be established before any person is allowed to work on the scaffolding platform.

(v) The scaffold platforms to be provided with suitable hard barricading at the open sides. Top rail must be at least 42", mid 21", toe board 4" from the working surface.

(vi) While erecting scaffold, care should be taken to ensure that the distance between two transoms is not more than one meter.

(vii) Frequent checks must be made to ascertain condition of the staging to ensure that they are safe.

(viii) The staging / scaffolding planks should be so arranged that there is no gap between them.

(ix) If the erection of scaffolding is under vendor's scope as per SOTR, then concerned firms must provide certificate of scaffolder and inspector to the controlling GRSE officer and Safety dept. before erection or dismantling of the scaffolding and engage only approved trained & certified scaffolding gang & certified supervisor for erection or dismantling of the scaffolding. Tag (Red, Yellow, and Green) to be used during erection of scaffolding.

(x) Base plate must be provided during erection of scaffolding structure (as per requirement).

(xi) Passageway, or a scaffold, platform or any other working elevated surface which is in a slippery and dangerous condition should not be used and water, grease, oil or other similar substances which may cause the surface slippery shall be removed or sanded, saw dusted or covered with suitable material to make it safe.

(i) **Safety while working on fragile roof**

(i) The fragile sheets dismantling activity shall be in compliance to the Rule 51 A of W.B. Factories Rules, 1958.

(ii) All the metal access ladders (if not available at site, in that case to be erected) shall be provided with IS / EN marked vertical fall arrester for vertical ascending or descending of personnel from the fragile roof.

(iii) Sufficient number of dedicated Roof Ladders / Crawling Boards / Duck Ladders (Load Tested at 500 Kgs and manufacturers load test certificate to be submitted) shall be used on the fragile roof according to site requirements. All personnel, required to work on fragile roof, shall be well trained and conversant with the use of Roof Ladder / Crawling Board / Duck Ladder, as the case may be.

(iv) Overlay type P.P. Safety Net, having suitable mesh size, to be used underneath the working location for arresting inadvertent fall of man and materials (small nuts & bolts, broken asbestos sheets etc.) from height.

(v) The underneath area of work shall be cordoned with cautionary tape with a minimum site clearance of 5 mtr. in all direction from the

location of work and sufficient number of Cautionary Notice (in Bengali & Hindi Language) to be displayed & maintained at site as stipulated in Rule 51 A (c) of W.B. Factories Rules, 1958.

(vi) IS / EN Marked Double lanyard Full Body Harness (with retractable attachment) and sufficient number of horizontal life lines to be erected above the fragile roof for anchoring of Full Body Harness during dismantling of asbestos sheets. If required, safety posts of adequate strength to be erected for laying of horizontal life lines for anchoring the lanyards of Full Body Harness.

(vii) Before starting of the job, the contractor must submit individual Medical Fitness Certificate against every engaged employee, issued by MBBS Doctor, in favour of the workers required to work at height declaring that all such worker(s) are fit to work at height.

(viii) Firm has to engage trained and experienced personnel at GRSE site and trade wise training / experience certificate of the individual concerned to be submitted to GRSE.

(ix) 'Safety Tool Box' to be conducted by the Site In-charge on regular basis prior to commencement of day's work and a register of the personnel attended the Tool Box Talk to be maintained at site with signature of the individuals, duly endorsed by the Site In charge of the firm.

(x) Suitable Scaffolding Platform with fencing, having adequate strength shall be provided for workmen for all works that cannot be done safely from the ground / low level.

(xi) "Height Work Permit" shall be obtained by the Site In-charge of the contractor's firm on daily basis, duly endorsed by the concerned executing Dept. of GRSE & certified by GRSE Safety Department.

(xii) All roads and open areas adjacent to the work site shall be suitably protected by erecting vertical safety net and PVC woven cloth for arresting the fall of fragmented materials during dismantling activity.

(j) **Safety while working with Acetone**

(i) The persons while working with Acetone must wear impervious gloves and flame retardant anti-static protective clothing. For handling in a closed ventilation, the persons must wear safety glasses with side-shielded.

(ii) Do not undertake any Hot Work (including grinding / drilling) in the vicinity of vapor, if formed and also do not use Electric switches. Safety clearance similar to hot work in extant is to be followed i.e. Work permit system should be implemented by concerned Department with a copy to Fire/ Safety Department before starting any job.

(iii) In case of spillage of Acetone, soak up with inert absorbent materials (e.g. Sand, Saw dust) and shovel into suitable container for disposal. Do not use sparking tools. Do not allow product to enter sewer or waterways. Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation.

(iv) During normal handling, ensure all equipment is electrically grounded before beginning transfer operation. Ensure adequate ventilation. Do not allow product to contact skin, eyes and clothing. Do not breathe vapors. Keep away fire, sparks and heated surfaces. Keep container tightly closed in a dry and well ventilated place. Do not use plastic buckets, which may lead to spillage.

(v) Keep all Acetone containers in a well-ventilated space. Empty container may retain product residue including flammable or explosive vapors. Store in area designed for storage of flammable liquids.

(vi) Do not cut, drill, grind or weld near full/ partially full or empty product containers. Keepaway from heat and source of ignition.

(vii) Re-open used container with caution. Containers which are opened must be resealed and kept upright to prevent leakage.

(viii) Provide local and general exhaust ventilation to effectively remove and prevent build- up of and vapors or mists generated from handling of the product.

(k) **Deployment of Trained Employees by the contractors**

(i) Each contractor has to depute trained & experienced personnel in the respective trade(s) for working at GRSE Site.

(ii) Contractor has to submit requisite trade training certificate of the individual to the executing dept. before commencement of job & issuance of Gate Entry Permit.

(l) Safety during Handling/ Storage/ Disposal of Oil Drums and Hazardous Wastes

- (i) The oil drums shall be handled in such a manner so that no damage to oil drums takesplace / spill on the ground.
- (ii) The oil drums should not be rolled on the ground. It should be carried with the help of proper trolley.
- (iii) Oil drums should not be left / kept in haphazard manner, instead it should be stored at dedicated storage place.

(m) Safety in using of material handling equipment such as crane, hydra and forklift truck etc.

(i) Statutory Requirements.

(aa) **Valid Driving License of the vehicle operator.** The operator of the Crane, Hydra, Forklift Truck, Dumper Dozer, Lorry, Tractor etc shall have valid Driving License as applicable for the particular class of vehicle.

(ab) **Valid eye test certificate of the operator and the persons giving signal.** The Eye Test and Colour vision test Certificate of the operator of Crane, Hydra, Forklift Truck, Dumper Dozer, Lorry, Tractor etc. and the person(s) giving signals to the Crane Operator to be obtained from a qualified Ophthalmologist as per Rule 49 of the W.B. Factories Rules, 1958 and the same should be checked & verified by GRSE Medical Department through proper channel. The eye sight and colour vision of the person as referred above shall be re-examined at least once in every period of 12 months up to the age of 45 years and once in every 6 months beyond that age. The record of examination and re-examination carried out shall be maintained by the service provider in Form 17A as specified in Rule 49 of the W.B. Factories Rules, 1958.

(ac) **Valid Load test certificate of the Lifting Machines.**

As per Section 29 of the Factories Act, 1948, the annual statutory Load Test Certificate of the Crane, Hydra, Forklift Truck etc. including all lifting tackles (Rope Sling, Chain Sling, Hook, Shackle, Swivel, Coupling, Socket, Clamp, Tray or similar appliance, whether fixed or movable, used in connection with the raising or lowering of loads or persons by use of lifting machines) to be obtained from the Competent Person as certified by the Chief

Inspector of Factories. The service provider, prior to taken into use of the aforesaid lifting machine and lifting tackles at GRSE site, shall submit the copy of valid statutory load test certificate(s) of the aforesaid items in Form - 8 (issued Under Rule 55 of the W.B. Factories Rules, 1958) along with a copy of Competency Certificate of the person issuing the test certificate in Form 8.

(ii) **General Requirements.**

(aa) All personnel engaged for operating the Crane, Hydra, Forklift Truck, Dumper, Lorry, Tractor etc. and their helper(s) shall wear IS mark Personal Protective Equipment in the factory premises. The PPEs shall be supplied by the service provider and also ensure use of the same while at work .

(ab) The operator of Crane, Hydra, Forklift Truck, Dumper, Dozer, Lorry, Tractor etc. and their helper must be provided with fluorescent type Jacket / Vest for better visibility from distance.

(ac) During material handling with the help of Crane, Hydra etc. in suspended condition, the swinging of the load being handled shall be controlled from remote with help of guide rope.

(ad) The helper of the Crane, Hydra, Forklift Truck, Lorry, Tractor etc. should have a whistle for giving signal to the personnel in the close vicinity during operation of the aforesaid vehicles.

(ae) One pair Walkie -Talkie set should be supplied by the service provider to the crane driver & and the person(s) giving signals to the Crane Operator, for maintaining communication between them during crane operation.

(af) Use of Mobile Phone and (or) Ear Phone is strictly prohibited during operation of the aforesaid vehicles.

(ag) Safety Orientation programme to be carried out by the service provider for their employees before commencing of the activity at GRSE and also periodically during execution of the job.

(ah) Material handling job shall be monitored and controlled by a competent supervisor of the service provider.

(aj) Further the service provider shall be liable for adoption of additional safety measure(s) as and when recommended by GRSE as per requirement.

(n) **Safety precautions to be adopted during work in confined spaces.**

(i) **General: -**

Sl. No	Description	Action By
aa	Identify the confined space and display the name and location of confined space in front of ship.	PL/PCO consultation with Design dept. and planning dept.
ab	Adequate safety briefing is to be conducted for identification of hazards, use of oxygen meter multi gas meter etc.	Safety Dept. & vendor supervisor/ safety.
ac	Adequate quantity of supply and exhaust ventilation equipment, low voltage (24V) supply, flameproof lights and fittings (for flammable atmosphere), appropriate respiratory protection etc to be made available for use during working in Confined Space.	PL/PCO & vendor supervisor.
ad	Analyze the work being carried out in adjacent compartment / space at the same time. Combination of work in both compartments must not create hazardous situation for either compartment / space. Such simultaneous activity / work should not be permitted. In case of hot work adjacent compartment also should be checked for presence of hydrocarbon vapour, paint fumes, combustible dust etc.	Vendor supervisor & PL/PCO to check and analyze. Fire / Safety Dept. to verify.

ae	Vendor rep/ entry supervisor/ job requisitioner should inform PL/PCO well in advance about requirement of working in confined space and submit confined work permit form duly filled to PL/PCO for checking the information provided in work permit, checking adequacy of preparation and simultaneous activity / work posting hazard in adjacent compartment, if any.	Vendor supervisor & PL/PCO
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(ii) Action before starting work inside confined space: -

Sl. No	Description	Action By
aa	Oxygen level to be examined before starting of work the Confined Space.	Safety Dept. & vendor supervisor
ab	Access and escape route to be kept clear. Ensure proper means of exit is available in case of emergency.	Vendor supervisor & PL/PCO/Berth officer / Controlling officer
ac	Appropriate ventilation is to be arranged (Exhaust and Inlet air supply). If the confined space can't be properly ventilated, the worker must use either Full Face Piece type respirator fitted with Supplied Air Line from the outside of the ship.	Vendor supervisor & PL/PCO
ad	All valves of the piping entering the confined space should be closed and locked.	Vendor supervisor & PL/PCO
ae	Unwanted moving machine parts should be stopped and prevented from starting.	Vendor supervisor & PL/PCO

af	All manhole lids and other cover should be removed.	Vendor supervisor & PL/PCO
ag	Ladder, staging, platforms should be provided and they are secured.	Vendor supervisor & PL/PCO
ah	Sufficient Nos. of fire extinguishers should be kept ready and at least one worker should be familiar with the operation of the extinguishers.	Vendor supervisor & Fire Dept.
ai	Checking the whole Confined Space before starting work. Check that the work being carried out concurrently in adjacent compartment / space does not create hazardous situation for either compartment / space.	Vendor supervisor & PL/PCO/Berth officer / Controlling officer to check.
aj	Ensure attendant to be present outside the confined space with PPE, rope arrangement.	vendor supervisor. & PL/PCO/Berth officer / Controlling officer
ak	Ensure worker enter inside the confined space must be with PPE.	vendor supervisor & PL/PCO/Berth officer / Controlling officer.
al	24V electric supply tools hand lamp used and electrical equipment must be connected through RCCB and proper earthed. All electrical equipment and cables should be fully operational with no damage.	Vendor supervisor & PL/PCO/Berth officer / Controlling officer
am	Where flammable gases can cause danger of fire or explosion.	Vendor supervisor & PL/PCO/Berth

	<p>(a) All the light fittings or other electrical equipment should be flameproof.</p> <p>(b) There should be no equipment or footwear or other articles that may produce sparks.</p> <p>(c) There should be no open fire or flame.</p> <p>(d) There should be adequate mechanical ventilation (force & exhaust ventilation).</p> <p>(e) No person is allowed to smoke or carry match box.</p>	officer / Controlling officer
an	Confined space permit must be taken before starting of work in the confined space and maintain of register.	Vendor supervisor & PL/PCO, Berth officer /Machinery Officer/ Plumbing Officer

(iii) During the work inside confined space: -

Sl.No	Description	Action By
aa	Stand by person should maintain visual contact / communication / use lifeline to ensure wellbeing of worker working inside the Confined Space. He should never enter the Confined Space in case of accidental / hazardous situation. In any situation the stand by person shall not leave the area without intimation and deputing to alternative stand by person.	vendor supervisor & PL/PCO/Berth officer / Controlling officer
ab	External monitor should always keep work permit with him till the work is completed.	vendor supervisor & PL/PCO/Berth officer / Controlling officer

ac	Ensure the worker use the proper ISI/EN standard PPE.	vendor supervisor/concern officer
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(iv) After completion of work inside confined space: -

Sl.No	Description	Action By
i	Work permit to be handed over to PL/PCO & Safety Dept.	vendor supervisor & Controlling officer
ii	Go to the Confined Space and ensure that everything is alright. Ensure nobody and no materials is left inside the Confined Space. No gas cutting torch / blowpipe should be left unattended inside the confined spaces during lunch/tea time. Blowpipes, gas cutting torch and hoses should be removed from the confined space at the end of the day's work. Lid of the confined space to be closed. Restore the compartment's integrity.	vendor supervisor & PL/PCO to check and analyze. Fire / Safety Dept. to verify.
iii	Closing of work permit.	vendor supervisor & Controlling officer

v. General safety precautions to be followed;

aa. Harmful atmospheric contaminants such as dust, fumes, gases as far as practicable be rendered harmless by removal, suppression or other effective means.

ab. When harmful atmospheric contaminants cannot be rendered harmless, worker exposed to them should be provided with respiratory protective equipment.

ac. in order to prevent danger, the atmosphere of workplaces should be tested for harmful contaminants at suitable intervals by competent persons and a record should be kept for atmospheric tests and inspections showing

date, time, nature, results and any instruction given by the inspecting persons after the inspection or test.

ad. No person should enter in confined space in which toxic, inert, flammable or other dangerous gases may accumulate, or oxygen may be deficient. In exceptional cases, a person may enter these spaces provided that:-

(i) The atmosphere has been tested and found safe and an entry certificate has been issued by a competent authority.

(ii) The person entering is wearing suitable respiratory protective equipment such as self-contained breathing apparatus, wherever applicable.

(iii) Requisite safety belts and lifelines should be kept readily available.

(iv) A standby person should continuously supervision the work.

(v) If the space to be entered contains an oxygen deficiency atmosphere (below 19.5%), the space shall be labelled "Not Safe for Workers" or, if oxygen-enriched (above 23.5%), "Not Safe for Workers—Not Safe for Hot Work." If an oxygen-deficient or oxygen-enriched atmosphere is found, ventilation shall be provided.

ae. When cleaning work is being carried out on in a tank or space that has contained corrosive liquids, or is being cleaned with such liquids, or contains sludge or deposits from petrol with lead additives, workers should wear suitable protective clothing.

af. In spaces where harmful lacquers or paints have been applied, or where lacquers or paints have been removed with harmful or flammable solvent; no subsequent work should be allowed until the space has been thoroughly ventilated and the air tested and found to be safe.

ag. Manholes should not be less than 400X350 mm if elliptical and 400 mm diameter if circular.

ah. Work in confined spaces should be so organized that hot work and painting activity are not carried out simultaneously.

aj. Before testing compartment with water or isolated structures by flushing with water or blowing air, the controlling officer should make sure that no workers are in the compartment or structures, and the manholes should then be closed.

aj. If freshly painted confined spaces are left open, notices should be pasted at the entrance prohibiting workers from entering unless authorized by a competent person.

ak. Covers of tanks should be opened carefully so as to avoid any sparking.

al. In the course of work in any oil tank or in any compartment or space adjacent to an oil tank, if any pipe or tank joint is opened or broken, or any other risk arises that oil vapour may enter or form in the oil tank or any compartments or space adjacent to it:

(i) The work must be suspended.

(ii) Existing work permit and hot work permits should be treated as cancelled.

al. No portable electric light or any other electric appliance of voltage exceeding twenty-four volt shall be permitted for use inside the confined space. However, in escape able situation, following safety measures to be taken for entry of electrical appliance more than 24 volt.

(i) Electrical appliance has proper earthing.

(ii) No cable damage or joint.

(iii) Electrical appliance to be connected through electrical extension board which is mounted with MCB & RCCB.

(iv) Cut out or electrical extension board is near to stand by person who can switch off the electrical power supply in emergency.

am. The person who enter into the confined space must wear suitable breathing apparatus and a belt securely attached to a rope the free end of which is held by a standby person posted outside the confined space.

an. The confined space register to be available at PL/PCO porta cabin. IN time & OUT time of worker and other parameters to be written in the register.

ao. Before leaving, hot work area and the surrounding area should be thoroughly inspected. After 30 mins (at least) of completion of last hot work, entire area is to be checked by the concern worker / vendor to avoid any ignition / fire later.

(o) **Safety precautions while undertaking air pressure testing.**

The primary goal of pressure testing is to ensure that the system can withstand its operating pressure without leakage or fail. However, the process itself can be hazardous. The high pressures involved can cause catastrophic failures if the system is compromised, leading to serious injuries or fatalities. Hence, safety must be the top priority during pressure testing.

Potential Hazards and Mitigation

i. Bursting and Explosions

- High-pressure systems can burst if they fail, releasing energy violently.
- Impact from the blast of an explosion or release of compressed gas or liquid.
- Impact from parts of equipment that fail or any flying debris.
- Mitigation: Use equipment rated for the test pressure, inspect systems thoroughly, and employ pressure relief devices. Suitable temporary locking arrangement (where there is a possibility to open the lid during APT like testing lid of intake pipe line of Diesel engine - D.E.) can be to be done across the lid which is fitted over pipe for APT, so that accidentally opening of lid or popping of lid can be arrested.

ii. Leaks and Contamination

- Leaks can occur during testing, leading to potential contamination of the environment or exposure to hazardous substances.
- Mitigation: Conduct pre-test inspections and monitor the system continuously.

iii. Injuries from Flying Debris

- A failure in the system can result in flying debris, posing a significant risk to personnel.

Mitigation: Establish exclusion zones, use barriers or shields, and ensure personnel are at a safe distance.

iv. Failure of hoses

- Failure of flexible hoses, causing unsupported length of hose to whip or snake violently.
- Mitigation: use of whiplash arrestor.

iv. Electrical hazards:

- Not insulated the live parts of cable of Ty. electrical light or other equipment after disconnection for APT activity.
- Mitigation: Disconnect the power cable / proper insulation to be done of the live electrical parts.

v. General Safety precautions:

aa. Pre-Test Inspection and Planning

- Conduct a thorough inspection of the system to identify potential weak points, corrosion, or defects.
- Ensure that all personnel involved are trained and familiar with the test plan and safety protocols.
- No gas will be used other than Compressed Air for APT of Tank / Compartment.
- No worker inside / entrapped into the compartment where APT to be performed.

ab. Use of Appropriate Equipment

- Utilize equipment that is rated for the test pressure and compatible with the test medium (water, air, etc.).
- Ensure that pressure gauges, relief valves, and other instruments are calibrated and functioning correctly.
- Couplings and connections of flexible hoses subjected to the pressure should be adequately secured to prevent injury due to "flailing" in the event of failure. Flexible hoses under pressure must have secure couplings and connections to prevent injury from "flailing" in case of failure. This can be achieved by using safety devices like whip checks.

ac. Controlled Environment

- Conduct pressure testing in a controlled environment, away from non-essential personnel and operations.
- Establish a clear exclusion zone around the test area to minimize the risk of injury from potential failures.
- Barriers, barricades, warning signs, and DANGER tapes shall be used to indicate the restricted access area.

- Suitable temporary locking arrangement (where there is a possibility to open the lid during APT like testing lid of intake pipe line of Diesel Engine D.E.) can be to be done across the lid which is fitted over pipe for APT, so that accidentally opening of lid or popping of lid can be arrested.

- Disconnect the power cable / proper insulation to be done of the live electrical parts.

ae. Personal Protective Equipment (PPE)

- Require all personnel involved in the testing to wear appropriate PPE, including safety glasses, gloves, safety goggles, faceshield and protective clothing.

af. Gradual Pressurization

- Increase the pressure gradually to the desired test level, monitoring the system closely for signs of leakage or stress.
- Avoid sudden pressure changes that can cause shock and potential system failure.

ag. No Hot work, No Hammering

- It is generally not safe to perform hot work (such as welding, cutting, or grinding) during an air pressure test. This is because the pressurized air can create a hazardous environment, increasing the risk of fire, explosion, or injury. No hot work board in Bengali, English and Hindi with date of test and duration of test to be displayed.
- No 'hammer test' while the system is under pressure.
- Where leakage is detected in joints or fittings, whether on the item under test or on the test equipment itself, pressure should be reduced to atmospheric pressure prior to rectifying the leakage.

ah. Emergency Preparedness

- Have emergency response plans in place, including procedures for shutting down the test and evacuating personnel if necessary.
- Ensure that first aid kits and emergency contact information are readily accessible.

ai. APT Permit

- PL/PCO/Controlling officer shall ensure that no APT activity will be started without "Air Pressure testing Permit" which is issued in specified Format by the designated Officials.

- The vendor rep./supervisor shall check the APT arrangement before commencement of APT & confirm to comply according to the checklist.

aj. Clear the area

- After completion of testing, vendor shall clear the area in all respect including disconnect the hose from source and remove the hose from the area.
- Close the APT permit.

(n) Safety guidelines for using ladders.

- Portable ladder shall be as per IS 3696 (Part - 2).
- All ladders shall be constructed to carry to their intended loads safely. Before use, all ladders shall be tested for load test. They shall have, not only adequate strength but rigidity as well. For load test, a test load of 1.5 times the mass of worker plus the mass of 16 bricks shall be hung from each rung. The rung and the ladder shall not show any distress or noticeable bending. The lower rungs may be tested by reversing the ladder. Unless otherwise specified, the mass of worker shall be taken as 68 kg.
- Side rails of metal ladders shall be of sufficient cross-section to prevent excessive deflection in use.
- No ladder having a missing, defective rung. Rung should be damage free and in good condition.
- Both ladder ends should be fixed or secured. It should be stable.
- Ladders shall not be used as guys, braces or skid or for any other purpose for which they are not intended. They shall not be used in horizontal position as runways. They shall not be over-crowded.
- To prevent slipping, a ladder shall be secured at the bottom end.
- If the surface of the floor on which the ladder rests is smooth or sloping, the ladder shall be provided with non-slip bases.
- No ladder shall be placed. or leant against window panes, sashes or such other unsafe or yielding objects, nor placed in front of door opening towards it. If set up in driveways, passageways or public walkways, it shall be protected by suitable barricades.

- x. When ascending or descending, the user shall face the ladder, use both his hands and place his feet near the ends of the rungs rather than near middle.
- xi. Every vertical and horizontal sections shall be free from sharp edge, oil, grease free.
- xii. One extra support hand hold should be provided near the ladder at the top landing area.
- xiii. Ladders, for having access to the staging platform, should be placed at an angle of 75 degrees to the horizontal. Follow the 4:1 rule.
- xiv. Men using the ladder should not carry anything in his hand. Maintain three points of contact. always keep either two hands and one foot, or two feet and one hand on the ladder. Tool kit should be used while carrying small tool like wrench, spanner, screw driver etc. Material should be hoisted and handed by suitable equipment such as pulley blocks, chains, ropes etc.
- xv. Be cautious while using ladder. Don't over load a ladder and don't overreach a ladder or stepladders.
- xvi. The rung ladders shall have a provision for use of fall arrestor used to reach the top should have a landing at every 6 meters to allow the persons to rest.
- xvii. Never stand on the top step of the ladder. Always keep your body near the middle of the step.
- xviii. Don't place a ladder on boxes, barrels or other unstable bases to obtain additional height.
- xix. Don't move or shift a ladder while a person or equipment is on the ladder.
- xx. Wooden ladder to be used for any electrical work.
- xxi. When two or more separate ladders are used to reach an elevated work area, make sure that the ladders are offset with a platform or landing between the ladders.

Contractor's liability for non-compliance of Safety Rules & Regulations

13. Each contractor firm shall be solely responsible for any untoward incident arising out of adopting unsafe practices while working at GRSE premises and in the event of any accident happening in the yard, resulting in physical injury to the contractor personnel

or loss of lives or otherwise damaging any part of the property, the contractor shall be required to make good the loss to the Company and shall be responsible for all consequences that follow from loss and / or injuries to the persons involved in such accidents/ litigation expenses or litigation consequences etc.

14. It will be liability of the contractor firm to ascertain the standard safety precautions for discharging his work as per the prevailing safety standards in GRSE. The decision of GRSE Management in all matters concerning to safety, shall be final and binding on the contractor.

15. The vendor shall maintain their equipment, tools and tackles in good conditions with proper maintenance. The vendor shall inspect their equipment, tools and tackles as per available GRSE inspection check list and provide tag on their equipment, tools and tackles after inspection. All Inspection checklist with green tag on equipment and maintenance record of their equipment to be made available and shall produce on demand by any GRSE Officers / Safety Dept./ other statutory body at any time.

16. The vendor shall ensure that no worker will work at GRSE without getting of safety training & receive of PPE. PPE issue register and training record as per GRSE format to be maintained by vendor and shall produce on demand by any GRSE officers / Safety Dept./ other statutory body at any time

17. For compliance of requisite safety norms, each contractor firm will deploy their own qualified Safety Officer at GRSE site.

18. On completion of work in any location (either on-board / in the yard), the contractor firm or his agents must ensure that the place is left in a reasonably clean state and all scraps are transferred to nearby scrap-bins / removed from GRSE premises as per terms and conditions.

19. GRSE reserves its right to suspend the work in the event of the contractor not complying with the rules / instructions with regard to safety practices for which no claim of any kind will be entertained. The executing department or the Head of Safety Dept., upon his satisfaction that the Contractor is not conforming to the safety requirement(s), may direct stoppage of work and require the Contractor to remedy the defects or supply the Omission/s as the case may be. The Contractor shall not proceed with the work until his compliance with such directions to the satisfaction of the executing department or the Head of Safety Department.

20. The vendor shall ensure that no workers should stand or take rest under any fabricated block or suspended loads or ship block when situated over trestle

21. The vendor shall use of cylinder cage and keep the all gas cylinders in the cage, securing with chain. Moreover, where cylinder cage is not feasible due to narrow space

or other issues, the vendor must ensure that cylinders are tied with secured structure with chain.

22. GUTKHA/PAN in the company premises is strictly prohibited.

23. Without prejudice to the right conferred by the clause (s) above for stoppage of work for violating safety requirements, the Contractor shall be liable for a penalty as below: -

The quantity of penalty during a calendar year:

Sl.No.	Type of violation	Penalty (in Rupees)			Penalty
		1st instance	2nd instance	3rd instance	
(a)	Any worker not having / not using PPEs properly	10,000/-	15,000/-	20,000/-	Discontinued / Debarred
(b)	Use of defective / non IS PPEs	5000/-	10,000/-	15,000/-	
(c)	Found adopting Unsafe Act (wilful violation of safety norms)	25000/-	37500/-	50000/-	Discontinued / debarred from participating in future tender upto 06 months / 02 consecutive tenders, whichever is later
(d)	Creation of unsafe condition	25000/-	37500/-	50000/-	
(e)	Non deployment of trained personnel (Trade wise)	25000/- per untrained personnel	50000/- per untrained personnel	75000/- per untrained personnel	
(f)	Major violation of safety guidelines of the Tender terms and / or safety Guidelines issued by Safety Dept. from time to time	50000/-	100000/-	150000/-	

Note:-

(i). In case of permanent disability / fatal accident during the execution of the contract, a penalty will be imposed on the contractor on the basis of recommendation of contract awarding Department on case to case basis. In such case the penalty may be banning of business dealing with GRSE or penalty of up to 10% of contract value to a minimum of Rs 50,000/- (fifty thousand) or both.

(ii) In the case of repeated violation of safety guidelines, i.e, for more than 04 (four) instances during any Financial Year, GRSE shall have the sole discretion to terminate all / such affected contracts of the concerned non-complying contractor. GRSE may also impose Tender Holiday up to maximum period of 03 years in the event of more than 04 Violations and / or on the severity of the violations as decided by the management. Tender Holiday will be issued on recommendation of existing Standing Committee and approval of Competent Authority.

24. Penalty for Non-Cleaning of Work Area Post-Job Completion:

Non-cleaning of work area after job completion causes waste accumulation, workflow disruptions, and safety hazards. Some of the examples are as follows:

- a. non-removal of blasting grits after blasting activity,
- b. left over remaining electrodes, plastic welding spool after welding activity,
- c. left over Oxyfuel gas hose of gas cutting sets after gas cutting activity,
- d. Remain Welding set in on condition,
- e. left over damaged/unused grinding wheel/cutting wheel after grinding and cutting activity,
- f. left over empty paint drums, thinner drums, painting machines and Spray-painting kit after painting activity,
- g. left over scraps & loose material after fabrication activity,
- h. left over Die Penetrant testing kit after D.P. test,
- i. left over cotton jute & waste after cleaning activity,
- j. left over plastic wrappers removed from machinery items,
- h. left over excess / unused/cut piece cable after cable laying work,
- i. left over excess / unused insulation materials, cartoon box, gasket, drawing paper, plastic bottles and polyethene's, etc.,
- j. Any flammable or hazardous items (liquid or solid).

In addition, spitting pan & gutkha & do urinal inside the ships not only affects swacchata of the workplace but also gives a bad impression of cleanliness culture of GRSE.

To address this issue, the following guidelines are being enforced:

- i. Responsibility of Cleaning Work Areas: Contractors must ensure that work areas are cleaned immediately after the completion of tasks and no worker should spit inside the compartments onboard the ships.
- ii. Penalty for Non-Compliance: Failure to clean the work area and spitting will result in the imposition of stringent penalties, including but not limited to:
 - a) Monetary fines: Rs. 5000/- per instance on defaulter company.
 - b) Debar the concerned contractors' workman from entering the unit for maximum 10 (ten) days period in each instance of violation.
 - c) Temporary or permanent debarment from participating in future tenders of GRSE.

Procedure to be followed for imposing penal action

25. Action by User Department

- (a) In the event of safety violation by the contractor or his worker / supervisor etc. the concerned officer of User Dept. (WDC issuing authority) shall inform the contractor in writing of such violations and subsequently initiate action to deduct the penal amount as per Para 6 of this policy from the next bill of the contractor or Security Deposit / Earnest Money Deposit etc. The penalty is to be implemented and advised for deduction by the concerned Officer of the user department at the time of issuing next WDC (Work Done Certificate) to the contractor.
- (b) The concerned officer of User Dept. shall simultaneously inform the above penal action to the Safety Dept., VD Cell, Contract Cell and HR Dept. / Contract Labour Cell mentioning name of the firm, contract / P.O. no., date of safety violation, type of violation, penalty amount and instance of violation.
- (c) Inform HR Department (Central Contract Labour Cell, Main unit and / or unit HR Officers) the name of the errant contractors' workmen found to be violating the policy for debarring their gate-passes.

26. **Action by Safety Dept.** Safety Department can also inform the user dept. regarding violation of safety guidelines and submit a report to the user department (WDC issuing authority) for taking necessary action. The fortnightly MIS of safety violations will be forwarded to Contract Cell and Occupiers. Inform HR Department (Central Contract

Labour Cell, Main unit and / or unit HR Officers) the name of the errant contractors' workmen found to be violating the policy for debarring their gate-passes.

27. **Action by Contract Cell.** Based on the fortnightly MIS reports, Contract cell will issue caution letter to the defaulting contractors regarding debarring them in the event of safety violation after the 3rd instance. In case the violation takes place for more than 04 (four) times during a FY, the Contract Cell will initiate action for putting the defaulting contractor under Tender Holiday as per the laid down procedure.

28. **Action by HR Dept.** Upon receiving information of Safety violation by a contractors' workman, the concerned HR Officer will inform the nodal Officer of Security department to debar the concerned contractors' workman from entering the unit for maximum 10 (ten) days period in each instance of Safety violation.

29. **Action by Security Dept.** Security Dept. will debar the concerned defaulting contractors' workman based on advisories by user department / Safety department and recommendations by Contract Labour Cells of HR Dept. for each instance of Safety violation.

The penalty amount shall be recoverable from any Bill / Security Deposit / Earnest Money Deposit or from other dues of the contractor.

30. **The above rules and procedures are only illustrative and not exhaustive.**

PPE TABLE

Sl. No.	Description	Name of PPE	Applicable area of Protection	Purpose	Standard
1	Head Protection	Safety Helmet	In the shop floor / on board ship / working at height / under the suspended load or any other place where there is any possibility of head injury.	To protect the head from injury due to falling or moving objects, impact on stationary objects and from impact due to fall	IS: 2925 or EN 397.
2	Foot Protection	Safety Shoes	<p>(a) Mandatorily wear safety shoe while working in shop floor / on board ship/ Stores/ Dock floor or any other place where there is possibility of foot injury.</p> <p>(b) Mandatorily wear closed footwear while entering the shipyard.</p> <p>(c) Wear Rubber Gumboot while working in water logged condition for removing of water from ship's tank, compartment, Dock Galley etc., cleaning of Dock floor / acid pickling area/ canteen cooking and washing areas etc.</p>	To protect the feet from risks ranging from crush and impact injuries to contact with hot surface, slips, cuts, penetration wounds, electric shock etc.	<p>(a) IS 15298 / EN ISO 20345</p> <p>(b) Non ISI</p> <p>(c) IS: 12254</p>

Sl. No.	Description	Name of PPE	Applicable area of Protection	Purpose	Standard
3	Eye Protection	Safety Goggles	When engaged for welding / gas cutting / grinding / chipping / painting / chemical handling or any other activity where there is a possibility for eye injury due to penetration of flying particles / ultra violet radiation / splashing of chemical etc.	To protect eyes from damage or penetration due to flying particles, ultra violet radiation impact, burns, splashes etc.	ANSI Z87.1 or EN166.
4	Ear Protection	Ear Plug	In high noise area (>90 db).	Use of hearing protection appropriate for reducing the sound levels of noisy equipment and processes to acceptable levels.	IS: 9167/ EN 352
5	Hand Protection	Hand Gloves	<p>(a) <u>Leather Hand Gloves.</u> During material handling / welding / gas cutting or any other activity where there is possibility of hand injury due to contact with sharp edges, hot spatter from welding or gas cutting processes.</p> <p>(b) <u>Electrical Rubber Hand Gloves.</u> While executing any electrical maintenance jobs.</p> <p>(c) <u>Acid / Alkali Proof Rubber Hand gloves.</u> During handling of</p>	To protect the hand from injuries such as cuts, abrasions, burns, ingress of chemicals & electric shock.	<p>(a) IS:6994/EN 407 for heat applications (gas cutting / welding) / EN 420 for general requirement / EN 388 for mechanical hazard</p> <p>(b) IS13774 (earlier IS 4770)</p> <p>(c) EN 374</p>

Sl. No.	Description	Name of PPE	Applicable area of Protection	Purpose	Standard
			acid, skin irritants chemical & solvent etc.		
6	Respiratory Protection	Welding Fume Respirator, Paint Fume Respirator or, Dust mask	<p>(a) <u>Dust Respirator</u>. To be worn during grinding job, floor cleaning, dusting or any other activity where there is possibility of producing dust.</p> <p>(b) <u>Welding Fume Respirator</u>. To be worn during welding, gas cutting, brazing job etc.</p> <p>(c) <u>Chemical Respirator</u>. To be worn during painting, mixing of paint with solvents & FRP activities handling of acid, skin irritants, chemical & solvents etc.</p>	To protect against respiratory hazards.	<p>(a) IS: 9473 / EN: 149</p> <p>(b) IS: 9473 / EN: 149</p> <p>(c) IS: 15323 (Selection to be made according to the particular chemical hazard)</p>
7	Fall Protection	Double lanyard Safety Belt & harness, automatic fall arrestor	<p>To be worn while working in height:</p> <p>(a) <u>Double Lanyard Full Body Harness</u>. During working at height such as on scaffolding structure / suspended working platform / ship's mast / fragile roof / inclined surface on the roof top or at any other height where there is a possibility of person to fall and get injured.</p>	To protect the personnel from falling while working at height such as on scaffolding structure / platform, ship's mast, fragile roof, inclined surface on the roof top etc.	(a) IS: 3521

Sl. No.	Description	Name of PPE	Applicable area of Protection	Purpose	Standard
			(b) <u>Automatic fall arrestor (in addition to full body harness)</u> . To be worn during carrying out job in the vertical ascending / descending on the scaffolding structure, working on the suspended working platform and inclined surface on the roof top, horizontal movement at height.		(b) EN 361
8	Electric Arc Flash Protection	Electric Arc rated flash suit jacket, pant, hood and gloves	To be worn during operation & maintenance of electrical installations inside the HT Switch Gear Rooms.	To protect the personnel from accidental exposure to high temperature of electric arc flash during operation & maintenance of electrical installations inside the HT Switch Gear Rooms.	As per guideline of NFPA-70E
9	Fire-Fighting protection	(a) Three Layer Fire Close Proximity Suit (b) Self-Contained Breathing Apparatus (SCBA) Set	Personnel engaged in Fire Fighting service should wear Fire Close Proximity Suit and use Self-Contained Breathing Apparatus (SCBA) Set during combating fire in a hazardous environment.	To protect the Fire Fighting personnel during Combating Fire in a Hazardous Environment / High Level Respiratory Protection	Fire Proximity Suit approved by EN-469:2005 + A1: 2006 +AC: 2006D and CE. Jacket & Trouser (EN-469) Hand Gloves (EN-659) Outer Head Protection

Sl. No.	Description	Name of PPE	Applicable area of Protection	Purpose	Standard
					Helmet (EN-443/1997) and inner Protection EN 1391, Self-Contained Breathing Apparatus(S CBA) Set, as per approval of CE and EN-137 CLASS II standards and Approval of PESO
10	Face protection	Industrial safety face shields with plastic visor	When person engaged for grinding / chipping / buffering or any other activity where there is a possibility for face injury due to penetration of flying particles	To protect the face from flying particle	IS 8521 Design of visor may be selected as per design of safety helmet
11	Protective Clothing	Cotton boiler-suit	In the shop floor / on board ship / production floor and in any other areas of operation.	To protect the whole body of a contractors' workman from dirt, dust etc.	IS: 177-1989 (Reaffirmed in 2003), Variety 3 standard
<p>Note : Cotton-boiler suits should bear name of the contractors' firm on the back-side of the boiler-suit in legible manner for easy identification</p>					



DIFFERENT PERMIT FORMAT

ब्लास्टिंग / पेंटिंग गतिविधि अनुमति

BLASTING / PAINTING ACTIVITY PERMIT (DAY / NIGHT SHIFT)

परमिट सं./ Permit No.

दिनांक /Date:

यार्ड/ YARD:

विक्रेता /VENDOR:

कार्य की अवधि /DURATION OF JOB: दिनांक /Date: से/From तक/ To

1. स्थान विवरण /Location Details: 2. पर्यवेक्षक का नाम एवं मोबाइल संख्या /Name & Mob. No of the Supervisor:

3. गेट पास नं. के साथ ऑपरेटर/ ब्लास्टर (ओं) / पेंटर और हेल्पर (ओं) का नाम / Name of Operator/Blaster (s)/Painter & Helper(s) with Gate Pass No:

- | | |
|-------|------|
| (i) | (iv) |
| (ii) | (v) |
| (iii) | (vi) |

फर्म के पर्यवेक्षक के हस्ताक्षर
Signature of the Supervisor of the firm

4. स्वीकृत /Approved: से/From तक/ To

5. अनुमोदित नहीं होने के लिए कारण (यदि आवश्यक हो)/Reasons for not approved (If Reqd.):

6. उत्पादन और पेंट शॉप से संबंधित अधिकारी (ओं) के हस्ताक्षर /Signature of the concerned Officer(s) of Production & Paint Shop:

पेंट शॉप /PAINT SHOP पीएल/पीसीओ-____ अग्नि/ संरक्षा विभाग
PL/PCO-____ FIRE/SAFETY DEPT.

7. पेंट / ब्लास्टिंग का काम पूरा होने का समय / Completion time of Paint / Blasting Work:

पेंट / ब्लास्टिंग वर्क परमिट समाप्ति : दिनांक _____ समय

Painting/Blasting Work Permit Closed on: Date _____ time _____

ठेकेदार का नाम और हस्ताक्षर पेंट शॉप अग्नि /संरक्षा विभाग
Name & Signature of Contractor's PAINT SHOP
FIRE/SAFETY DEPT

नोट 1: ब्लास्टिंग क्षेत्र की पर्याप्त कवरींग और ब्लास्टिंग / पेंटिंग साइट पर उपयुक्त चेतावनी बोर्ड को प्रदर्शित किया जाना है।

Note 1: Adequate covering of the blasting area & suitable warning boards are to be displayed at blasting / painting site.

नोट 2: ब्लास्टिंग/ पेंटिंग कार्य के लिए लगे सभी कार्मिक उचित पीपीई जैसे हैंड ग्लव्स, सेफ्टी शू और हेलमेट, नोज मास्क, सेफ्टी गॉगल्स, एयर लाइन रेस्पिरेटर, प्रोटेक्टिव कपड़े / ब्लास्टिंग सूट आदि का उपयोग करेंगे।

Note 2: All personnel engaged for blasting / painting work shall use proper ISI mark PPEs such as Hand Gloves, Safety Shoe & Helmet, Nose Mask, Safety Goggles, Air Line Respirator, Protective Clothing / Blasting suit etc.

गार्डन रीच शिपबिल्डर्स एण्ड इंजीनियर्स लिमिटेड
(भारत सरकार का एक उपक्रम)
Garden Reach Shipbuilders & Engineers Ltd.
(A GOVT. OF INDIA UNDERTAKING)
ऊंचाई कार्य परमिट / HEIGHT WORK PERMIT

परमिट सं./ Permit No.:

दिनांक /Date: -

1. स्थान /Location :
2. किए जाने वाले कार्य का विवरण/ Description of work to be done:

क्र. सं./ Sl. No	क्षेत्र/स्थान/Area/ Location	कार्य का विवरण /Job Description	श्रमिकों की संख्या /Nos. of Workers	टिप्पणियों REMARKS
i)				
ii)				
iii)				
iv)				

विभाग का नाम / कार्य को क्रियान्वित करने वाले अभिकरण :

(पी.ओ संख्या)/Name of Dept./ Agency executing the job :
(P.O No.)

4. व्यक्ति को नियोजित किया जाना है : श्रमिकों की सूची संलग्न है (..... सं. प्रमुख)
Person to be employed : List of workers are attached (..... Nos. Heads).

5. कार्य के लिए पर्यवेक्षक का नाम : श्री साइट इंजीनियर (मोबाइल:-)
: श्री साइट पर्यवेक्षक (मोबाइल :-

)
Name of Supervisor for the job : Mr. Site Engineer (Mob: -

)
: Mr. Site Supvr. (Mob: -

)
परमिट की वैध अवधि : दिनांक- से तक समय- बजे से
..... बजे तक ।

Period of validity of Permit : Date- From To Time- AM
to PM.

6. ऊंचाई पर कार्य करते वक्त साइट पर निम्नलिखित सुरक्षा एहतियात बनाए रखा जाता है (जो लागू नहीं है मिटा दें) /The following safety precautions are being maintained at site while performing works at height (strike out which is not applicable):

क) सभी सुरक्षा उपकरण और ISI mark पीपीई (सेफ्टी शू, फुल बॉडी हार्नेस सेफ्टी बेल्ट, सेफ्टी हेलमेट, रूफ लैडर / क्रॉलिंग बोर्ड, वर्टिकल फॉल अरेस्टर, सेफ्टी नेट, यदि लागू हो आदि) ऊंचाई पर काम शुरू करने से पहले ही उपलब्ध करा दिया जाता है । / (a) All safety equipment's and ISI marked PPEs (Safety Shoe, Full Body Harness Safety Belt, Safety Helmet, Roof Ladder /

Crawling board, vertical fall arrestor, Safety Net, if applicable etc.) has been provided before starting work at Height.

ख) ऊंचाई पर गतिविधि के दौरान, कार्यकर्ता लाइफ लाइन, फुल बॉडी हार्नेस, सेफ्टी बेल्ट का उपयोग कर रहे हैं और उन्हें बेल्ट को फर्म संरचना/लाइफ लाइन के साथ एंकर कर देना चाहिए। (b) During movement on the height, worker are using Life Line, Full Body Harness, Safety Belt and they must anchor the belt with firm structure/Life line. ग) काम शुरू करने से पहले, यदि आवश्यक हो तो/आवश्यकतानुसार डीएसएल/इलेक्ट्रिकल लाइव लाइनों को डी-एनर्जेटिक किया जाएगा। (c) DSL/Electrical live lines under the roof will be De-energized before starting of work, if necessary/as required.

घ) काम करने वाले प्लैटफॉर्म के साथ स्काफ़ोल्डिंग संरचना और आदमी और सामग्री के भार को झेलने के लिए पर्याप्त शक्ति होने के कारण खड़ा किया गया है। (d) Scaffolding structure with working platform and fencing, having adequate strength to withstand the load of man and material has been erected.

ङ) बारिश और तूफान के समय के दौरान श्रमिकों को किसी भी प्रकार की ऊंचाई के कार्य की अनुमति नहीं दी जाएगी। (e) During the time of rain & storm workers will not be allowed for any type of height work.

च) संबंधित साइट के अलावा अन्य मानव गतिविधि को नियंत्रित करने के लिए कार्य स्थल के नीचे के क्षेत्र को सावधानी टेप से घेरा जाएगा। (f) The area underneath the working site will be cordoned by cautionary tape for controlling human movement other than the concerned firm.

छ) ठेकेदार मेसर्स किसी भी अवांछित घटना से बचने के लिए कार्य स्थल पर उचित सुरक्षा सुनिश्चित करेगा। (g) The Contractor M/S will ensure proper safety at working site to avoid any unwanted incident.

ज) ठेकेदार ने सुनिश्चित किया है कि प्रशिक्षित और अनुभवी कर्मचारी काम पर लगे होंगे। (h) The Contractor has ensured that trained & experienced workers will be engaged at work.

हस्ताक्षर/Signature:

ठेकेदार (साइट इंजीनियर) जीआरएसई सिविल विभाग/ एंगेजिंग अथॉरिटी
जीआरएसई संरक्षा विभाग

Contractor (Site Engineer) GRSE Civil Dept./ Engaging Dept. GRSE Safety Dept
कार्य पर लगे हुए कर्मिकों की सूची /

7. LIST OF PERSONNEL ENGAGED FOR HEIGHT WORK

ठेकेदार का नाम/Name of the Contractor:

क्र.सं./ Sl.No.	नाम/ Name	गेट पास/Gate Pass	पद/Designation

8. मैं पदनाम..... मेसर्स..... यह पुष्टि करता हूँ कि उपर्युक्त सभी कार्मिक (ऊंचाई कार्य के लिए लगे) ISI MARK डबल डोरी, फॉल अरेस्टर, लाइफलाइन, सेफ्टी नेट (जो लागू नहीं है, मिटा दें) के साथ फुल बॉडी हार्नेस (सेफ्टी बेल्ट) का इस्तेमाल करेंगे, । /

I , Designation..... of M/s..... hereby confirmed that all the above mentioned personnel (engaged for height work) shall use ISI mark Full Body Harness (Safety Belt) with double lanyard, fall arrestor, lifeline, Safety Net (strike out which is not applicable).

ठेकेदार का नाम और हस्ताक्षर
Name & Signature of Contractor's
साइट प्रभारी / साइट पर्यवेक्षक
Site In charge / Site Supervisor

परमिट सं./Permit No. :
(संरक्षा विभाग द्वारा जारी/Issued by Safety Dept.)

हाइट वर्क परमिट का विस्तार/Extension of Height Work Permit

क्र.सं./ Sl. No.	विस्तार सं./ Extension No.	विस्तार अवधि/Extension Period (दिनांक और समय /Date and time)		ठेकेदार का नाम एवं हस्ताक्षर / Name & Signature of Contractor's	सिविल विभाग/ एंगेजिंग अथॉरिटी का नाम एवं हस्ताक्षर/ Name & signature of Civil Dept./ Engaging Dept.	संरक्षा विभाग का नाम और हस्ताक्षर/ Name and Signature of Safety Dept.
		कब से / From	कब तक / To			

हाइट वर्क परमिट का समापन / Closing of Height Work Permit

कार्य पूर्णता/अस्थायी रूप से बंद/ स्थगित

Job Completion/Temporary Closed/Postponed: दिनांक/Date _____ समय/time _____

हाइट वर्क परमिट बंद करने का अनुरोध /

Request to close the Height Work Permit _____

ठेकेदार का नाम एवं हस्ताक्षर /Name & Signature of Contractor's

हाइट वर्क परमिट समाप्ति : दिनांक _____ समय _____

Height Work Permit Closed on: Date _____ time _____

स्ताक्षर/Signature

नाम / Name

जीआरएसई सिविल विभाग / एंगेजिंग अथॉरिटी / GRSE Civil Dept./ Engaging Dept.

हस्ताक्षर/Signature

नाम / Name

जीआरएसई संरक्षा विभाग(जीआरएसई) / GRSE Safety
Dept (GRSE)

हाइट वर्क जॉब की दैनिक पूर्णता / हाइट वर्क परमिट का दैनिक समापन

Daily Completion of Height Work Job / Daily Closing of Height Work Permit

क्र.सं. / Sl. No.	परमिट सं. (संरक्षा विभाग द्वारा जारी)/ Permit No. (Issued by Safety Dept.)	दिनांक Date	हाइट वर्क जॉब आरंभ का समय/ Starting time of the height work job	हाइट वर्क जॉब समाप्ति का समय / Completion time of height work job	ठेकेदार का नाम एवं हस्ताक्षर / Name & Signature of Contractor's	सिविल विभाग/ एंगेजिंग अथॉरिटी का नाम एवं हस्ताक्षर/ Name & signature of Civil Dept./ Engaging Dept.	संरक्षा विभाग का नाम और हस्ताक्षर/ Name and Signature of Safety Dept..

HOT Work Permit

HOT WORK DONE BY CONTRACTOR:		Enter Permit No.
Date:		PO NO.
Construction /Building: Location:		
Room/ Compartment		
DK and Frame		
NATURE OF JOB		
Name of Contractor		
I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for work		
Competent Hot Work Supervisor		
Contact #		
PERMIT REQUEST :	DATE:	Time AM PM
PERMIT REQUEST :	DATE:	Time AM PM
SIGNATURE OF CHWA(Contractor)		
Approval from PL/PCO/Engaging Officer/designated Engineer (GRSE Ltd.)		
Checked by Fire & Safety Department:		

**हॉट वर्क परमिट हेतु अनुलग्नक /Enclosure to Hot Work Permit
(इस अनुलग्नक के बिना कोई हॉट वर्क परमिट जारी नहीं किया जाएगा)
(No Hot Work Permit will be issued without this enclosure)**

परमिट सं. / Permit No. दिनांक /
Dated :

हॉट वर्क हेतु नियुक्त कार्मिकों का विवरण /Details of the personnel engaged for the Hot Work:

विक्रेता के नाम / Name of the Vendor :				
शॉप यार्ड सं. / Shop / Yard No :				
क्र.सं. Sl No.	कार्मिक के नाम / Name of the personnel	पदनाम ,वेल्डर,गैस कटर) (हेल्पर आदि / Designation (Welder, Gas Cutter, Helper etc.)	जीआरएसई गेट पास सं. / GRSE Gate Pass No.	ईएसआई सं. / ESI No.
1.				
2.				
3.				
4.				
5.				
6.				

नोट / Note यह प्रमाणित किया जाता है कि : / This is to certify that :

- उपर्युक्त सभी कार्मिकों को आवश्यक निजी सुरक्षा उपकरण (पीपीई) / संरक्षा गैजेट दिए गए हैं और यह अच्छी स्थिति में है /All the personnel mentioned above have been provided requisite Personal Protective equipment (PPE) / Safety gadgets & it is in good condition.
- हॉट वर्क परमिट में उल्लिखित हॉट वर्क स्थल की जांच की गई है और वहाँ कोई भी ज्वलनशील / दहनशील सामग्री नहीं पाई गई है /The Hot Work place mentioned in the Hot Work Permit have been checked & found free from any flammable / combustible materials.

- 3) हॉट वर्क एरिया और आस पास के स्थान पर कोई पेंटिंग गतिविधि नहीं-चल रही है / No Painting activity is in Progress at hot work area & adjacent place.
- 4) एग्जॉस्ट वेंटिलेशन और ताजी हवा की आपूर्ति की व्यवस्था की गई है)यथा लागू / (Exhaust ventilation & supply of fresh air has arranged (as applicable).

कंपनी मुहर के साथ ठेकेदार फर्म के
साइट प्रभारीपर्यवेक्षक के हस्ताक्षर/
Signature of Site In charge/Supervisor
of the Contractor Firm with Co's seal

ऑन बोर्ड प्रेशर टेस्टिंग (एपीटी) गतिविधि अनुमति / ON BOARD AIR PRESSURE TESTING (APT)

परमिट सं./ Permit No.

दिनांक /Date:

यार्ड/ YARD:

विक्रेता /VENDOR:

कार्य की अवधि /DURATION OF JOB: दिनांक /Date: से/From तक/ To

1. स्थान विवरण /Location Details:

2. पर्यवेक्षक का नाम एवं मोबाइल संख्या /Name & Mob. No of the Supervisor:

3. प्रेसर टेस्टिंग (एपीटी) पर लगे हुए कार्मिकों की सूची गेट पास नं. के साथ /

List of personnel Engaged for PRESSURE TESTING (APT) with Gate Pass No:

- (i)
- (ii)
- (iii)
- (iv)
- (v)

फर्म के पर्यवेक्षक के हस्ताक्षर
Signature of the Supervisor of the firm

4. स्वीकृत /Approved: दिनांक /Date: से/From तक/ To

5. अनुमोदित नहीं होने के लिए कारण (यदि आवश्यक हो)/Reasons for not approved (If Reqd.):

6. उत्पादन और पेंट शॉप से संबंधित अधिकारी (ओं) के हस्ताक्षर /Signature of the concerned Officer(s):

हल/एमएफओएस/प्लम्बिंग अधिकारी
Hull /MFOS/Plumbing Officer

पीएल/पीसीओ-
PL/PCO-

जीआरएसई संरक्षा विभाग
GRSE Safety Dept

7. ऑन बोर्ड प्रेशर टेस्टिंग (एपीटी) का काम पूरा होने का समय / Completion time of PRESSURE TESTING (APT): दिनांक (Date) समय(Time)

8. मैंने उस क्षेत्र को पूरी तरह से क्लियर किया है, जिसमें होस को स्रोत से अलग करना और उस क्षेत्र से होस को हटाना भी शामिल है।/I clear the area in all respect including disconnect the hose from source and remove the hose from the area.

प्रेसर टेस्टिंग (एपीटी) वर्क परमिट समाप्ति / PRESSURE TESTING (APT) Work Permit Closed : दिनांक (Date) समय (Time)

ठेकेदार का नाम और हस्ताक्षर
Name & Signature of Contractor's

पीएल/पीसीओ
PL/PCO

गुणवत्ता आश्वासन विभाग
Quality Assurance Dept.

नोट 1: मैं पदनाम मेसर्स का, एतद्वारा यह पुष्टि करता हूँ कि टैंक/कम्पार्टमेंट के छः साइडों में कोई भी हॉट वर्क नहीं हो रहा है।

Note 1: I Designation of M/s. hereby confirmed that no hot works is going on in six sides of the tank / compartment.

नोट 2: बांग्ला और हिंदी भाषा में "नो हॉट वर्क" का उल्लेख करने वाले नोटिस बोर्ड को जाँच स्थान, जो अभी दबाव के अधीन है, के सभी तरफ प्रदर्शित किया गया है।

Note 2: Notice Board mentioning "NO HOT WORK" in Bengali & Hindi Language is displayed at all sides of the job location which is under pressure.

सीमित स्थान प्रवेश परमिट / CONFINED SPACE ENTRY PERMIT

परमिट सं./ Permit No. दिनांक /Date:

यार्ड/ YARD:

विक्रेता /VENDOR:

कार्य की अवधि /DURATION OF JOB: दिनांक /Date: से/From तक/ To

1. स्थान विवरण /Location Details:
2. पर्यवेक्षक का नाम एवं मोबाइल सं. / Name & Mob. No of the Supervisor:
3. मौजूद व्यक्ति का नाम एवं मोबाइल सं / .Name & Mob. No of the stand by person:
4. गेट पास सं. के साथ सीमित स्थान में प्रवेश करने वाले कार्मिकों की सूची /

List of personnel enter into confined space with Gate Pass No:

क्र.सं. / Sl No.	सीमित स्थान में प्रवेश करने वाले कार्मिक का नाम / Name of the personnel enter into confined space	पदनाम (वेल्डर, गैस कटर, हेल्पर आदि) / Designation (Welder, Gas Cutter, Helper etc.)	जीआरएसई गेट पास सं. / GRSE Gate Pass No.	ईएसआई सं. / ESI No.	आईएसआई / ईएन मानक पीपीई / ISI/EN standard PPE
1.					
2.					
3.					

फर्म के पर्यवेक्षक के हस्ताक्षर / Signature of the Supervisor of the firm

5. स्वीकृत /Approved: दिनांक /Date: से/From तक/ To
6. अनुमोदित नहीं होने के लिए कारण (यदि आवश्यक हो)/Reasons for not approved (If Reqd.):
7. सीमित स्थान रजिस्टर में बताए गए सीमित जगह में आबक और जावक समय: (हां/नहीं) /
IN time and OUT time of entry in confined space mentioned in Confines space Register: (Yes/NO)
8. उत्पादन और पेट शॉप से संबंधित अधिकारी (ओं) के हस्ताक्षर /Signature of the concerned Officer(s):

हल/एमएफओएस/प्लंबिंग/पेंट अधिकारी
Hull /MFOS/Plumbing/Paint Officer

पीएल/पीसीओ
PL/PCO

जीआरएसई सुरक्षा विभाग
GRSE Safety Dept

7. सीमित स्थान के अंदर कार्य पूरा होने का समय / Completion time of work inside confined space:

दिनांक (Date) _____ समय (Time) _____

8. मैंने जांच और सुनिश्चित कर लिया है कि सीमित स्थान पर कोई भी नहीं है और ना ही कोई सामग्री है। /
checked and ensue that nobody and no materials are left inside the confined space.
सीमित स्थान परमिट को बंद करने का अनुरोध / Request to close the Confined space permit.

ठेकेदार का नाम एवं हस्ताक्षर /Name & Signature of Contractor's

सीमित स्थान परमिट बंद / Confined space Permit Closed:

दिनांक (Date) _____ समय (Time) _____

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हल/एमएफओएस/प्लंबिंग/पेंट अधिकारी
Hull /MFOS/Plumbing/Paint Officer

पीएल/पीसीओ
PL/PCO

जीआरएसई सुरक्षा विभाग
GRSE Safety Dept

CHECKLIST

संरक्षा निरीक्षण जांचविन्दु /SAFETY INSPECTION CHECKLIST
हाईट वर्क /HEIGHT WORK

फर्म का नाम / Name of the firm: / ओ.सं. एवं तिथि. P.O. No. & date:
स्थान / .यार्ड सं/Location / Yard No.: / रिपोर्टिंग की तिथि Date of reporting:

क्र.सं. SI No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियां Remarks
1.	क्या 'हाईट वर्क परमिट' प्राप्त किया गया है? Whether 'Height Work Permit' has been obtained?				
2.	क्या सभी पीपीई (आईएसआई/ईएन चिह्नित) उपलब्ध हैं? Whether all PPEs (ISI / EN Marked) are available?				
3.	क्या फुल बॉडी हार्नेस (डबल डोरी के साथ) की शारीरिक स्थिति अच्छी है? Whether Physical Condition of Full Body Harness (with Double Lanyard) is good?				
4.	क्या असीडिंग/डिसेडिंग उद्देश्य हेतु स्वचालित फॉल अरेस्टर का उपयोग किया जा रहा है? Whether automatic Fall Arrestors are being used for ascending / descending purpose?				
5.	क्या ऊंचाई पर काम करने हेतु रिट्रैक्टबल फॉल अरेस्टर का उपयोग किया जाता है? Whether Retractable Fall Arrestor is used for work at height?				
6.	क्या संरक्षा नेट प्रदान किया गया है? Whether Safety Net is provided?				
7.	क्या स्केफोल्डिंग और उपयुक्त सीढ़ी प्रदान की जाती है? Whether scaffolding and suitable ladder is provided?				
8.	क्या टो गार्ड, मिड रेल और टॉप-रेल में स्केफोल्डिंग की व्यवस्था की गई है और दोनों सिरों पर लकड़ी के तख्तों को बांधा गया है? Whether Toe guard, mid-rail & top-rail are provided with scaffolding and wooden planks are tied up at both ends?				
9.	क्या सेफ्टी बेल्ट लाइफ लाइन के एंकरिंग हेतु/रिजिड बिंदु उपलब्ध हैं? Whether rigid points are available for anchoring of Safety Belt / Life Line?				
10.	क्या ऊंचाई के काम हेतु क्षतिज जीवन रेखा एरेक्ट की जाती है? Whether horizontal life line is erected for height work?				

11.	क्या काम शुरू करने से पूर्व डीएसएल इलेक्ट्रिकल लाइव लाइनें/ डी-एनर्जीकृत की जाती हैं? Whether DSL / Electrical live lines are De-energized before starting of work?				
12.	क्या हाईट वर्क हेतु मौसम की स्थिति अनुकूल है? Is the weather condition is favourable for height work?				
13.	क्या हाईट वर्क (सूर्यास्त के बाद) हेतु पर्याप्त रोशनी की व्यवस्था की गई है? Whether adequate Lighting arrangement is provided for height work (After Sunset)?				
14.	क्या कार्य क्षेत्र को घेराबंदी की गई है? Whether cordoning of the work area has been done?				

अतिरिक्त टिप्पणियां / यदि कोई हो .Additional Remarks. If any

मुहर सहित विक्रेता के संरक्षा अधिकारी स्थल/
प्रभारी अथवा पर्यवेक्षक का हस्ताक्षर/
Signature of the vendor's
Safety Officer / Site In-charge or
Supervisor with Stamp

संरक्षा निरीक्षण जांचविन्दु / SAFETY INSPECTION CHECKLIST
औद्योगिक इलेक्ट्रिकल एक्सटेंशन बोर्ड / INDUSTRIAL ELECTRICAL EXTENSION BOARD

फर्म का नाम / Name of the firm:

पी / ओ.सं. एवं तिथि.P.O. No. & date:

स्थान / .यार्ड सं/Location / Yard No.:

/ रिपोर्टिंग की तिथि

Date of reporting:

क्र.सं. SI No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियां Remarks
1.	क्या औद्योगिक प्रकार के इलेक्ट्रिकल एक्सटेंशन बोर्ड का उपयोग किया जाता है ? Whether the industrial type electrical extension board is used?				
2.	क्या औद्योगिक एक्सटेंशन बोर्ड में औद्योगिक प्रकार का -3पिन प्लग टॉप प्रदान किया गया है ? Whether the industrial type -3pin plug top provided in Industrial Extension Board?				
3.	पुष्टि करें कि -3पिन प्लग क्षतिग्रस्त नहीं हैं । Confirm -3pin plugs are not damaged.				
4.	क्या साइट पर केबल का कोई अनुचित जुड़ाव मौजूद है ? Is any improper jointing of Cables are prevailing at Site?				
5.	क्या कनेक्शन एमसीबी/आरसीसीबी के माध्यम से रूट किए गए हैं/? Whether the connections are routed through MCB / RCCB?				
6.	क्या अर्थिंग की निरंतरता की जांच की जाती है? Whether the continuity of earthing is checked?				
7.	पुष्टि करें कि एक्सटेंशन बोर्ड पर खुले तार का उपयोग नहीं किया गया है। Confirm bare wire is not used on the extension board.				
8.	क्या केबल और एक्सटेंशन बोर्ड की स्थिति ठीक है? Whether the condition of Cable and extension board is ok ?				
9.	क्या एक्सटेंशन बोर्ड के सॉकेट क्षतिग्रस्त हैं ? Whether sockets of the extension board is damaged?				
10.	क्या प्लग एंड सॉकेट की रेटेड क्षमता का उपयोग किया जाता है? Whether rated capacity of Plug & Socket is used?				
11.	पुष्टि करें कि सॉकेट अधिक लोड नहीं लिए हैं। Confirm that Socket is not over loaded.				
12.	पुष्टि करें कि औद्योगिक प्रकार का इलेक्ट्रिकल एक्सटेंशन बोर्ड गीला नहीं है। Confirm that industrial type electrical extension board is not soaked with water.				

अतिरिक्त टिप्पणियां / अगर कोई हो .Additional Remarks, if any:

मुहर सहित विक्रेता के संरक्षा अधिकारी/
 स्थल प्रभारी अथवा पर्यवेक्षक के हस्ताक्षर
 Signature of the vendor's Safety Officer
 / Site In-charge or Supervisor with Stamp

संरक्षा निरीक्षण जांचविन्दु / SAFETY INSPECTION CHECKLIST

ग्राइंडिंग गतिविधि /GRINDING ACTIVITY

फर्म का नाम / Name of the firm: पी / ओ.सं. एवं तिथि.P.O. No. & date:
 स्थान / .यार्ड सं/Location / Yard No.: / रिपोर्टिंग की तिथि Date of reporting:

क्र.सं. SI No.	मानदंड Criteria	हाँ Ye s	नहीं No	लागू नहीं N/A	टिप्पणियां Remarks
1.	जाँच हेतु व्हील के प्रकार और आकार सही है ? Wheel type and size are right for the job?				
2.	ग्राइंडिंग मशीन पर व्हील गार्ड लगाया गया है ? Wheel guard is fitted on the grinding machine?				
3.	क्या उचित पीपीई उपलब्ध है (आईएस / ईएन स्टैंडर्ड बॉयलर सूट, सेफ्टी शू, सेफ्टी हेलमेट, डस्ट मास्क, हियरिंग प्रोटेक्टर, ग्राइंडिंग गॉगल्स फुल/फेस (शील्ड-?) Whether Proper PPE is available (IS / EN Standard Boiler Suit, Safety Shoe, Safety Helmet, Dust Mask, Hearing protectors, Grinding Goggles/ full face-shield) ?				
4.	ग्राइंडिंग मशीन के संचालन की गति व्हील पर अंकित गति से अधिक नहीं होती है। Grinding Machine operating speed does not exceed what is marked on the wheel.				
5.	क्या बिजली का स्रोत ठीक से ग्राउण्डेड है और कनेक्शन अच्छी स्थिति में है ? Whether electrical power source is properly grounded and connections are in good condition ?				
6.	पुष्टि करें कि कार्य क्षेत्र में कोई पानी या अन्य तरल नहीं है जो बिजली के झटके की संभावना पैदा कर सकता है। Confirm the work area contains no water or other liquid that could create electric shock potential.				
7.	पुष्टि करें कि कार्य क्षेत्र में कोई ज्वलनशील पदार्थ तरल नहीं है जो बिंगारी से प्रज्वलित/ हो सकता है। Confirm there is no inflammable material / liquid in the work area that could be ignited by sparks.				
8.	क्या कार्य क्षेत्र की रोशनी पर्याप्त है। Whether the work area lighting is adequate.				
9.	पुष्टि करें कि ग्राइंडिंग व्हील माउंटिंग करने से पूर्व रिंग टेस्ट* पास कर चुका है। Confirm Grinding Wheel has passed "ring test" before mounting.				

अतिरिक्त टिप्पणियां / यदि कोई हो .Additional Remarks. If any:

मुहर सहित विक्रेता के संरक्षा अधिकारी/
 स्थल प्रभारी अथवा पर्यवेक्षक/के हस्ताक्षर
 Signature of the vendor's Safety Officer / Site In-charge or Supervisor with Stamp

संरक्षा निरीक्षण जांच विन्दु / SAFETY INSPECTION CHECKLIST
हॉट वर्क (गैस कटिंग एवं वेल्डिंग) / HOT WORK (GAS CUTTING AND WELDING)

फर्म का नाम / Name of the firm:

पी.ओ.सं. एवं तिथि / P.O. No. & date:

स्थान/यार्ड सं. / Location / Yard No.:

रिपोर्टिंग की तिथि / Date of reporting:

क्र.सं. SI No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियाँ Remarks
1.	क्या गैस कटिंग /वेल्डिंग शुरू करने से पहले अग्निशमन विभाग/हॉट वर्क नियंत्रक अधिकारी से लिखित मंजूरी (हॉट वर्क परमिट) प्राप्त कर ली गई है?/ Prior to starting Gas Cutting / Welding whether written clearance (Hot Work Permit) has been obtained from Fire Fighting Department / Hot Work Controlling Officer?				
2.	क्या किसी पेंटिंग गतिविधि की योजना बनाई गई है या आसपास / विपरीत बल्कहेड / कम्पार्टमेंट के नीचे में की जा रही है?/ Whether any Painting Activity is planned or been carried out in the close vicinity / opposite bulkhead / compartment below?				
3.	हॉट वर्क से पहले, क्या पेंट का खाली ड्रम सहित दहनशील या ज्वलनशील सामग्री को डेक/बल्कहेड के विपरीत दिशा सहित उक्त स्थान से हटा दिया गया है?/ Before Hot Work, whether combustible or flammable materials including empty paint drums have been removed from the location including the opposite side of deck / bulkhead?				
4.	क्या हॉट वर्क स्थान/आस-पास के क्षेत्र में पेंट की धूआं/ज्वलनशील गैस की कोई उपस्थिति है?/ Is there any presence of paint fume / flammable gas in the hot work location / in the surrounding zone?				
5.	क्या हॉट वर्क के दौरान निरंतर निगरानी के लिए डेक के विपरीत दिशा में /बल्कहेड/ ओवरहेड स्थिति में किसी जिम्मेदार व्यक्ति को नियुक्त किया गया है?/ Is there any responsible person has been deputed at opposite side of deck / bulkhead / overhead position for continuous surveillance during hot work?				

क्र.सं. SI No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियाँ Remarks
6.	क्या उचित पीपीई उपलब्ध है (आईएस / ईएन स्टैंडर्ड बॉयलर सूट, सेफ्टी शू, सेफ्टी हेलमेट, मास्क, गॉगल्स/फुल फेस-शील्ड)? Whether Proper PPE is available (IS / EN Standard Boiler Suit, Safety Shoe, Safety Helmet, Mask, Goggles/ full face-shield)?				
7.	क्या गैस कटिंग होसेस (आईएस: 447) और गैस कटिंग टॉर्च (आईएस: 7653) आईएस मार्क के हैं?/ Whether Gas Cutting Hoses (IS: 447) and Gas Cutting Torches (IS: 7653) are IS Marked?				
8.	क्या फ्लैश बैक अरेस्टर (आईएस 11006 / आईएसओ: 5175 - भाग 1 चिह्नित) गैस काटने के उपकरण पर लगाया जाता है?/ Whether Flash Back Arrestor (IS: 11006 / ISO : 5175 -Part 1 Marked) is fitted on Gas Cutting equipment?				
9.	क्या वेल्डिंग केबल्स आईएस मार्क (IS:9857) और दोष मुक्त हैं?/ Whether Welding Cables are IS Marked (IS:9857) & defect free?				
10.	क्या वेल्डिंग होल्डर (IS 2641/EN 60974 - part 2) फुल इंसुलेटेड प्रकार का है और अच्छी भौतिक स्थिति में है?/ Whether Welding Holder (IS 2641 / EN 60974 - part 2) is Full Insulated Type and in good physical condition?				
11.	गैस काटने वाले होसेस विद्युत/वेल्डिंग केबलों से नहीं उलझे हैं?/ Gas cutting hoses are not entangled with electrical / welding cables.				
12.	क्या गैस कटिंग टॉर्च (जो उपयोग में नहीं है) को टैंक या सीमित स्थान से हटाया जाता है?/ Is gas cutting torch (which is not in use) is removed from the tank or confined spaces?				
13.	क्या हॉट वर्क प्रारंभ करने से पहले पर्याप्त वेंटिलेशन की व्यवस्था की जाती है?/ Whether adequate ventilation is arranged prior to commencement hot work?				
14.	क्या गैस प्रेशर रेगुलेटर आईएस मार्क (IS:6901) और दोष मुक्त हैं? Whether Gas pressure regulator shall be good condition and as per IS 6901.				

टिप्पणियाँ /Remarks:

(a) गैस कटिंग होसेस को दिन का कार्य समाप्त होने के पश्चात गैस सिलेंडर / गैस मैनीफ़ोल्ड से पृथक किया जाएगा और बंद स्थान / कम्पार्टमेंट से हटा दिया जाएगा और खुले डेक पर रखा जाएगा।/Gas cutting hose will be isolated from the gas cylinder / gas manifold after the end of day's work and will be removed from the confined space / compartment & keep on the open deck.

(b) दिन का कार्य समाप्त होने के पश्चात सभी वेल्डिंग मशीनों को विद्युत शक्ति स्रोत से स्विच ऑफ कर दिया जाएगा।/ After the end of day's work all Welding Machines will be SWITCHED OFF from electrical power source.

मुहर सहित विक्रेता के संरक्षा अधिकारी/स्थल
प्रभारी अथवा पर्यवेक्षक का हस्ताक्षर/
Signature of the vendor's

Safety Officer / Site In-charge or Supervisor with
Stamp

संरक्षा निरीक्षण जांचविन्दु /SAFETY INSPECTION CHECKLIST
पेंटिंग /PAINTING

फर्म का नाम / Name of the firm:
date:

पी / ओ.सं. एवं तिथि.P.O. No. &

स्थान / .यार्ड सं/Location / Yard No.:

/ रिपोर्टिंग की तिथि

Date of reporting:

क्र.सं. SI No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियां Remarks
1.	कंपार्टमेंट/बल्कहेड के विपरीत दिशा में/निकटवर्ती क्षेत्रों में कोई हॉट वर्क प्रगति पर नहीं है।/No hot work is in progress either in the compartment / opposite side of the bulkhead / in the adjacent areas.				
2.	हैच / कंपार्टमेंट / पेंटिंग जॉब / पेंट किए गए क्षेत्रों के पास के प्रवेश द्वार के पास हिंदी, बंगाली और अंग्रेजी में "पेंटिंग कार्य प्रगति पर है - नो हॉट वर्क" इंगित करने वाला एक बोर्ड प्रदर्शित किया गया है।/A board indicating "PAINTING IN PROGRESS – NO HOT WORK" in Hindi, Bengali and English is displayed near entrance of the HATCH / COMPARTMENT / ADJACENT TO PAINTING JOB / PAINTED AREAS				
3.	टैंक / बंद डिब्बे में निकास वेंटिलेशन और ताजी हवा की आपूर्ति की व्यवस्था है। Exhaust ventilation & supply of fresh air is arranged in the tank / closed compartment.				
4.	उपयुक्त पीपीई उपलब्ध (उपयुक्त आईएस/एन मानक पेंट फ्यूम रेस्पिरैटर/ आपूर्ति की गई एयर लाइन रेस्पिरैटर, बॉयलर सूट, संरक्षा जूता, संरक्षा हेलमेट) है और यह अच्छी स्थिति में है।/Proper PPEs available (suitable IS/ EN Standard Paint Fume Respirator / supplied Air Line respirator, Boiler Suit, Safety Shoe, Safety Helmet) & it is in good condition.				
5.	कोई नेकड लैंप का उपयोग नहीं किया जाना चाहिए। पेंटिंग करते समय, यदि हैंड लैंप का उपयोग किया जाना है, तो इसे इंसुलेटेड हैंडल और बिना जुड़े उचित इंसुलेटेड तार, वायर मेष कवर और लैंप के ऊपर ग्लास कवर के साथ फिट किया जाना चाहिए।/No naked lamp to be used. While painting, if hand lamp to be used, it should be fitted with insulated handle and proper insulated wire without joining, wire mesh cover and glass cover over the lamp				

6.	सभी कामगार संरक्षा प्रशिक्षण प्राप्त किए हैं। All workmen have undergone safety training.				
7.	सीमित स्थान पर पेंटिंग कार्य के दौरान सुपरवाइजर/हेल्पर की उपलब्धता, यह सुनिश्चित करने के लिए कि उस डिब्बे के सभी सिक्स साइड कोई हॉट वर्क नहीं किया जा रहा है और सीमित स्थान के अंदर काम करने वाले पेंटर की समस्या की निगरानी की जा रही है।/Availability of supervisor/Helper during painting work at confined place to ensure that, no hot work is executed at all the six sides of that compartment & to monitor problem of the Painter working inside of the confined space.				

टिप्पणियां /Remarks: मैं आश्वासन देता हूँ कि दिन के पेंटिंग कार्य के पश्चात, खाली आंशिक रूप से भरे / पूर्ण पेंट ड्रम या कंटेनर जिसमें सभी सामान, कपास अपशिष्ट शामिल हैं, को पोत /बंद स्थानों से पूरी तरह से हटा दिया जाएगा।/ I assure that after day's painting work, the empty / partially filled / full paint drums or containers including all accessories, cotton wastes will be removed completely from the ship / confined spaces.

नोट/ NOTE: इस प्रारूप को भरा जाना चाहिए, हस्ताक्षरित और मुद्रित किया जाना चाहिए तथा अनिवार्य रूप से पेंटिंग वर्क परमिट के साथ संलग्न किया जाना चाहिए।This format to be filled up, signed & stamped and mandatorily to be attached with the Painting Work Permit.

मुहर सहित विक्रेता के संरक्षा अधिकारी स्थल/
प्रभारी अथवा पर्यवेक्षक का हस्ताक्षर/
Signature of the vendor's
Safety Officer / Site In-charge or
Supervisor with Stamp

संरक्षा निरीक्षण जांचविन्दु / SAFETY INSPECTION CHECKLIST
ऑन बोर्ड प्रेशर टेस्टिंग (एपीटी) /ON BOARD PRESSURE TESTING (APT)

फर्म का नाम / Name of the firm:

पी.ओ. सं. एवं तिथि/P.O. No. & date:

स्थान / .यार्ड सं/Location / Yard No.:

रिपोर्टिंग की तिथि /Date of reporting:

क्र.सं. SI No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियां Remarks
1	क्या टैंक/कम्पार्टमेंट के छः साइडों में सभी हॉट वर्क के पूरा होने की पुष्टि प्राप्त की गई है ?/ Whether confirmation regarding completion of all hot works in six sides of the tank / compartment is obtained?				
2	क्या सभी ओपनिंग्स को रिक्त करने की पुष्टि हो गई है ?/ Whether blanking of all openings is confirmed?				
3	रिक्त स्थानों की संख्या दर्शाई जाएं । /No of blanks to be indicated.				
4	क्या परीक्षण योजना (दबाव एवं होल्डिंग समय की पुष्टि) के अनुसार प्रेशर एवं होल्डिंग समय की पुष्टि की गई है ?/ Whether pressure & holding time is confirmed as per testing plan? (Pressure & holding time to be indicated).				अधिकतम प्रेशर समय/ Max Pr. Time:
5.	क्या कैलिब्रेटेड परीक्षण उपकरण का उपयोग किया जाता है ?/ Whether Calibrated test equipment are used?				
6.	अंतिम कैलिब्रेटेड तिथि/Last calibrations Date:				
7	क्या लीकेज की जांच की गई है ?/ Whether Check for leakages have been done?				
8	क्या बांग्ला और हिंदी भाषा में "नो हॉट वर्क" का उल्लेख करने वाले नोटिस बोर्ड को जॉब स्थान के सभी तरफ, जो दबाव में है, प्रदर्शित किया जाता है ? Whether Notice Board mentioning "NO HOT WORK" in Bengali & Hindi Language is displayed at all sides of the job location which is under pressure?				नोटिस बोर्ड का स्थान/ Location of display Board:
9	क्या टैंक/ कम्पार्टमेंट के एपीटी हेतु कंप्रेस्ड एयर की व्यवस्था है ?/ Whether compressed air is arranged for APT of Tank / Compartment?				जेटी पॉइंट संख्या /Jetty Point No
10	क्या स्टैंडर्ड कमप्रेस्ड वायु लाइन हेतु मानकीकृत उच्च दबाव रबर होस का उपयोग किया जाता है ?/				

	Whether standardised high-pressure rubber hose is used for compressed air line?				
11.	क्या कर्मचारियों को संरक्षा संबंधी ब्रीफिंग प्राप्त हुई/Whether the workers received the safety briefing				
12.	क्या एपीटी कार्य क्षेत्र बैरिकेडेड है /Whether APT work area is barricaded				
13.	क्या व्हीपलैश अरेस्टर और संरक्षा क्लैप का उपयोग किया गया है/ Whether whiplash arrestor and safety clamp is used				
14.	एपीटी के लिए पाइप के ऊपर लगे ढक्कन के पार उपयुक्त अस्थायी लॉकिंग व्यवस्था की जा सकती है, ताकि ढक्कन के गलती से खुलने या पॉपिंग को रोका जा सके (जहां एपीटी के दौरान ढक्कन खुलने की संभावना हो जैसे डी.ई. की इनटेक पाइप लाइन के ढक्कन का परीक्षण)/Suitable temporary locking arrangement can be to be done across the lid which is fitted over pipe for APT, so that accidentally opening of lid or popping of lid can be arrested (where there is a possibility to open the lid during APT like testing lid of intake pipe line of D.E.)				
15.	टाई. लाइट केबल (यदि कोई हो) काट दिया गया है और ठीक से इन्शूलेड किया गया है /Ty. light cable (if any) disconnected & properly insulated.				

टिप्पणियां: यह प्रमाणित किया जाता है कि एपीटी टैंक/कम्पार्टमेंट हेतु कंप्रेसड एयर के अलावा किसी अन्य गैस का उपयोग नहीं किया जाएगा ।

Remarks: It is confirmed that no gas will be used other than Compressed Air for APT of Tank / Compartment.

मो० नंबर सहित विक्रेता के संरक्षा अधिकारी/
पर्यवेक्षक का हस्ताक्षर/
Signature of the vendor's
Safety Officer / Supervisor with Mob No

मो० नंबर सहित विक्रेता फर्म के साइट प्रभारी /
पर्यवेक्षक का हस्ताक्षर
Signature of the vendor's Site In charge /
Supervisor of the Contractor with Mob No

संरक्षा निरीक्षण जांच बिन्दु / SAFETY INSPECTION CHECKLIST
टैंक / सीमित स्थान / TANK / CONFINED SPACE

फर्म का नाम / Name of the firm:
date:

पी.ओ.सं. एवं तिथि / P.O. No. &

स्थान/यार्ड सं. / Location / Yard No.:

रिपोर्टिंग की तिथि / Date of reporting:

क्र.सं. SI No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियां Remarks
1.	क्या आपके पास सीमित स्थान में प्रवेश हेतु लिखित अनुमति है? Do you have a written permit for confined space entry?				
2.	क्या गैस डिटेक्टर के साथ प्रवेश जांच से पहले सीमित स्थान संक्षारक, ईंधन या खतरनाक पदार्थों, यदि कोई हो, से पूरी तरह से खाली/शुद्ध और धोए गए हैं? Are confined spaces thoroughly emptied / purged and rinsed of corrosive, fuel or hazardous substances, if any? Before entry check with Gas Detector.				
3.	क्या सीमित स्थानों में पर्याप्त वेंटिलेशन समय प्रदान किया जाता है? Is adequate ventilation time provided in confined spaces?				
4.	क्या टैंक/ सीमित स्थानों के अंदर और आसपास के क्षेत्र में भी पर्याप्त सामान्य रोशनी उपलब्ध है? Whether adequate general illumination is available inside the tank / confined spaces and also in the close vicinity?				
5.	क्या डेक/बल्कहेड के विपरीत दिशा सहित आसपास के क्षेत्र में किसी ज्वलनशील/विस्फोटक/पेंट भाप या वाष्प/संवेदनशील सामग्री की कोई उपस्थिति है? Is there any presence of any flammable/explosive/ paint fume or vapour/ sensitive material in surrounding zone including the opposite side of deck/ bulkhead?				
6.	सीमित स्थानों/टैंकों आदि में हॉट वर्क करने से पूर्व क्या ज्वलनशील गैस (एलईएल) की मौजूदगी की जांच की गई है और इसे सुरक्षित घोषित किया गया है? Prior to undertaking hot work in confined spaces / tanks etc. whether existence of flammable gas (LEL) has been checked and declared safe?				
7.	क्या टैंक/सीमित स्थान के बाहर किसी जिम्मेदार व्यक्ति को टैंक/सीमित स्थान के अंदर काम करने वाले व्यक्ति के साथ निरंतर पर्यवेक्षण और बातचीत हेतु प्रतिनियुक्त किया गया है? Is there any responsible person has been deputed at the outside of the Tank / Confined space for continuous				

	supervision and interaction with the person working inside the Tank / Confined space?				
8.	क्या सीमित स्थानों में किए जाने वाले कार्य हेतु 24 वोल्ट की आपूर्ति और इंसुलेटेड सेफ्टी हैंड लैंप प्रदान किया गया है? Whether 24 Volts supply and insulated Safety Hand Lamp is provided for the work to be performed in the confined spaces?				
9.	क्या बिजली के झटके से सुरक्षा हेतु सीमित स्थानों के अंदर उपयोग किए जाने वाले सभी पोर्टेबल उपकरण ग्राउंडेड या इंसुलेटेड और आरसीसीबी के साथ फिट हैं? Is all portable equipment used inside confined spaces grounded or insulated and fitted with RCCB for electric shock protection?				
10.	सीमित स्थानों के अंदर गैस कटिंग/वेल्डिंग से पूर्व, क्या गैस होज और कटिंग टॉर्च की वाटर डिप टेस्ट के साथ लीक हेतु जाँच की जाती है? Before gas cutting / welding inside the confined spaces, are gas hoses and cutting torches are checked for leaks with Water Dip Test?				
11.	सीमित स्थान/टैंक तक पहुँचने का सुरक्षित साधन (उपयुक्त और सुरक्षित सीढ़ी) प्रदान किया गया है? Safe means of access (suitable & safe ladder) to confined space / tank is provided?				
12.	उपयुक्त निजी सुरक्षा उपकरण (आईएस / ईएन स्तर) प्रदान किया जाता है? Suitable Personal Protective Equipment (IS / EN Standard) is provided?				
13.	क्या किसी आपात स्थिति हेतु उचित बचाव योजना/उपकरण उपलब्ध है? Whether proper rescue plan / equipment is available for any emergency?				
14.	क्या कर्मचारियों को संरक्षा ब्रीफिंग मिली / Whether the workers received the safety briefing				
15.	क्या रस्सी,बेल्ट और सीटी उपलब्ध हैं / Whether the rope, belt and whistle are available				

अतिरिक्त टिप्पणियां, यदि कोई हो / Additional Remarks, If any:

मोबाइल सं. सहित विक्रेता संरक्षा अधिकारी/
पर्यवेक्षक के हस्ताक्षर/
Signature of the vendor's Safety Officer /
Supervisor with Mob No

मोबाइल सं. सहित ठेकेदार फर्म के साइट प्रभारी /
पर्यवेक्षक के हस्ताक्षर /
Signature of the vendor's Site In charge /
Supervisor of the Contractor with Mob No

संरक्षा निरीक्षण जांच बिन्दु/SAFETY INSPECTION CHECKLIST

वेल्डिंग मशीन/WELDING MACHINE

फर्म का नाम /Name of the firm:

पीओ.सं. एवं तिथि./P.O. No. & date:

स्थान / .यार्ड सं/Location / Yard No. :
inspection:

संरक्षा निरीक्षण की तिथि/Date of safety

	जांच की जाने वाली मद्/ Item to be	मानदंड /Criteria	हाँ Yes	नहीं No	लागू नहीं
1.	वेल्डिंग मशीन WELDING MACHINE	क्या वेल्डिंग मशीन अच्छी कार्यशील स्थिति में है?/Is welding machine in good working condition?			
		क्या वेल्डिंग मशीन में अर्थिंग या ग्राउंडिंग प्रदान की जाती है?/Is welding machine provided with earthing or grounding?			
		क्या डबल्यू/एम ठीक से ढका हुआ है और बारिश से सुरक्षित है?/Is W/M properly covered & protected from rain?			
		क्या वेल्डिंग मशीन में कोई पहचान संख्या/चिह्न है? मेक: आईडी मार्क /Have welding machine any identification number / mark?			
		क्या 3-पिन प्लग टॉप (पोर्टेबल मशीन के लिए) प्रदान किया गया है?/Is 3- pin plug top provided (for portable machine)?			
2.	टर्मिनल / जाइंट्स TERMINAL / JOINTS	क्या टर्मिनल/जोड़ काम करने की अच्छी स्थिति में हैं?/Are terminal/joints in good working condition?			
		क्या टर्मिनल/ जाइंट्स सुरक्षित और प्रभावी रूप से पृथक हैं?/Are terminal/joints secured and effectively			
3.	वेल्डिंग केबल WELDING CABLE	क्या वेल्डिंग केबल ठीक से इंसुलेटेड है और कोई खुला केबल नहीं है?/Is welding cable properly insulated and no exposed cables?			
		क्या कॉपर कोर की आईएसआई मार्क वाली वेल्डिंग केबल (आईएस: 9857) प्रतिष्ठित बनावट की है?/Is welding cable of copper core with ISI marked (IS: 9857) of reputed make?			

		क्या आसान पहचान के लिए वेल्डिंग केबल में उचित कलर कोडिंग दी गई है?/Is welding cable provided with proper Colour coding for easy identification?			
		क्या वेल्डिंग केबल अच्छी स्थिति में है?/Is welding cable in good condition?			
4.	इलेक्ट्रोड होल्डर / क्लैप ELECTRODE HOLDER / CLAMP	क्या इलेक्ट्रोड होल्डर त्रुटि मुक्त है और पूरी तरह से इंसुलेटेड है?/Is electrode holder free from defects & fully insulated?			
		क्या रिटर्न केबल क्लैप त्रुटि मुक्त है?/Is return cable clamp free from defects?			
		क्या उपयोग में नहीं होने पर इलेक्ट्रोड अलग हो जाता है?/Is electrode detached when not in use?			
5.	कार्य क्षेत्र WORK AREA	क्या आस-पास कोई दहनशील या ज्वलनशील पदार्थ हैं?/Are there any combustible or flammable materials in vicinity?			
		क्या वेल्डिंग मशीनों के पास अग्निशामक उपलब्ध है?/Is Fire extinguisher provided near welding Machines?			
		क्या अच्छी हाउसकीपिंग मेन्टेन किया जा रहा है?/Is good housekeeping maintain?			

- अग्नि संरक्षा की दृष्टि से निर्माण गतिविधियों के दौरान एल्यूमीनियम वेल्डिंग केबल का उपयोग निषिद्ध है / *Use of Aluminium Welding Cable is prohibited during construction activities from fire safety point of view.*

अतिरिक्त टिप्पणियां / यदि कोई हो ADDITIONAL REMARK, IF ANY:

मुहर सहित विक्रेता के संरक्षा अधिकारी स्थल/
प्रभारी अथवा पर्यवेक्षक का हस्ताक्षर/
Signature of the vendor's Safety Officer/
Site In-charge or Supervisor with Stamp

संरक्षा निरीक्षण जांचविन्दु / SAFETY INSPECTION CHECKLIST

सीढ़ी/LADDER

फर्म का नाम / Name of the firm:

पी.ओ. सं. एवं तिथि/P.O. No. & date:

स्थान/ यार्ड सं./Location / Yard No.:

रिपोर्टिंग की तिथि/Date of reporting:

क्र सं. Sl No.	मानदंड Criteria	हाँ Yes	नहीं No	लागू नहीं N/A	टिप्पणियां Remarks
1	सीढ़ियों में कोई क्षति, गायब या ढीला स्टेप/जंग नहीं होना चाहिए/ Ladders should not have any damage, missing, loose steps/rungs				
2	सीढ़ियों पर तेल, ग्रीस या फिसलन वाली चीजें नहीं होनी चाहिए/ Ladders shall be free of oil, grease, or slippery materials				
3	सीढ़ियों के किनारे नुकीले, कोने और खुरदरे नहीं होने चाहिए/ Ladders shall be free of sharp edges, corners and burrs				
4	सीढ़ी के दोनों सिरे फिक्स या सुरक्षित होने चाहिए / Both ladder ends should be fixed or secured				
5	लैंडिंग या वॉकवे तक जाने वाली सीढ़ियां लैंडिंग से कम से कम एक मीटर ऊपर होनी चाहिए/Ladders leading to landings or walkways shall extend at least one metre above the landing				
6	मंच तक पहुँचने के लिए सीढ़ियों को क्षतिज से 75 डिग्री के एंगल पर रखना चाहिए। 4:1 नियम का पालन करें। Ladders, for having access to the staging platform, should be placed at an angle of 75 degrees to the horizontal. Follow the 4:1 rule.				
7	सीढ़ियों में कोई भी ढीला कील, स्कू, बोल्ट या अन्य धातु का हिस्सा नहीं होना चाहिए / Ladders should not have any loose nails, screws, bolts or other metal parts				
8	टॉप लैंडिंग एरिया में सीढ़ी के पास हाथ से पकड़ने की सुविधा दी जाएगी Hand hold shall be provided near the ladder at the top landing area				

टिप्पणी/Remarks: पुष्टि किया गया है कि ऊपर दिए गए सभी मद ठीक से जांच किए गए हैं और सीढ़ी चढ़ने और उतरने के लिए सुरक्षित है। जांच की तिथि वाला हरा टैग लगा हुआ है / It is confirmed that all above points are properly checked and ladder is safe for ascending and descending. Green tag with inspection date is fitted.

मो० नंबर सहित विक्रेता के संरक्षा अधिकारी/
पर्यवेक्षक का हस्ताक्षर/
Signature of the vendor's
Safety Officer / Supervisor with Mob No

मो० नंबर सहित विक्रेता फर्म के साइट प्रभारी /
पर्यवेक्षक का हस्ताक्षर
Signature of the vendor's Site In charge /
Supervisor of the Contractor with Mob No

Name of the Vendor:

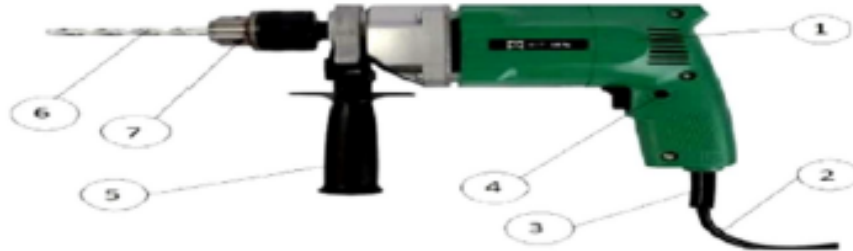
Project:

Location:

Date:

Identification No (M/c Sl. No., Make & Model);

DRILLING MACHINE















DRILLING MACHINE

SL NO	CHECKING POINTS	YES / NO	SL NO	CHECKING POINTS	YES / NO
1	Drill machine should be in good and working condition.		2	Power cable should be free from damages and connected with 3 pin industrial plug..	
3	A flexible cord should be provided to keep cable free from damage.		4	Dead man switch should be in working condition.	
5	Handle should be provided for better control.		6	Drill bit should be in good condition and free from defect.	
7	Always use designated key for removing and changing drill bit.		8	Drill machine should be double insulated otherwise grounded.	
9	Machine operated by competent person.				

* Observations:

Signature of Electrical In charge of the firm:

Signature of Safety Officer of the firm:

Name of the Vendor:							
Project:							
Location:						Date:	
Identification No. :							
GAS CUTTING SET INSPECTION CHECKLIST							
							
SL NO	CHECK ITEM	PHOTOS	Y/N	SL NO	CHECK ITEM	PHOTOS	Y/N
1	Protective valve cap firmly fixed for both cylinder(Check for damage/crack in the valve cap)			2	Pressure gauges two for each cylinder(inlet & out)are in working condition(both Oxygen & Acetylene gas)		
3	Flash back arrestor (FBAs) is provided for acetylene & oxygen cylinders			4	Non return valves (NRVs) is provided for both acetylene & oxygen cylinders.		
5	Tight Crimping of hoses with jubilee clamps.			6	Hose free from damage(cut and cracks)		
7	Cylinder secured by chain to the trolley.			8	Trolley tire shall be free from damages.		
9	Availability of industrial type lighter(no match box / commercial lighters).			YES(Y) <input type="radio"/> NO(N) <input checked="" type="checkbox"/>			
SL NO	CHECKING POINTS	YES/NO	SL NO	CHECKING POINTS	YES/NO		
10	FBA are BIS : IS: 11006 // ISO -5175 (Certified) & Gas Cutting Torches (IS: 7653)		11	Lever is properly working & no physical damage of torch			
12	Availability of Fire-retardant cloth to cover on DA cylinder		13	Gas hoses are IS-447 Certified & marked the vendor name on gas hoses at 1mtr. interval			
* Observations:							
Signature of Engineer/Supervisor of the firm:			Signature of Safety Officer of the firm:				

Name of the Vendor:

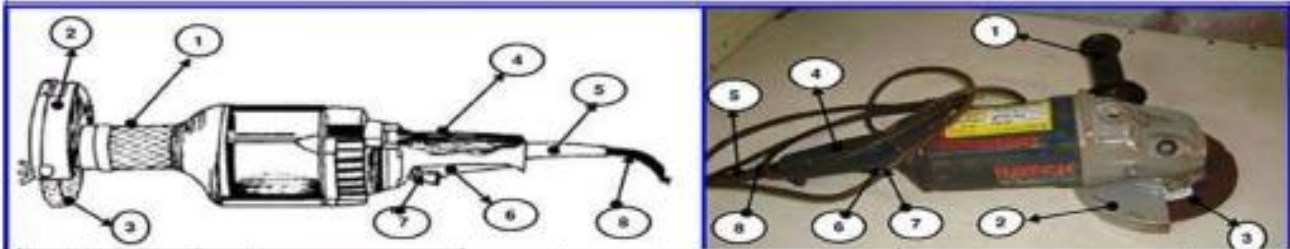
Project:









Location:

Date:

Identification No. (M/c Sl. No., Make & Model) :

GRINDING MACHINE INSPECTION CHECKLIST



SL NO	CHECK ITEM	PHOTOS	Y/N	SL NO	CHECK ITEM	PHOTOS	Y/N
1	Fore handle without damage.			2	Wheel guard (covering 3/4th area).		
3	Grinding wheel without any crack.			4	Rear handle without any damage.		
5	Presence of Cord strain reliever (glands).			6	Trigger switch without damage.		
7	Presence of Switch lock.			8	Electric wire without cuts and joints.		

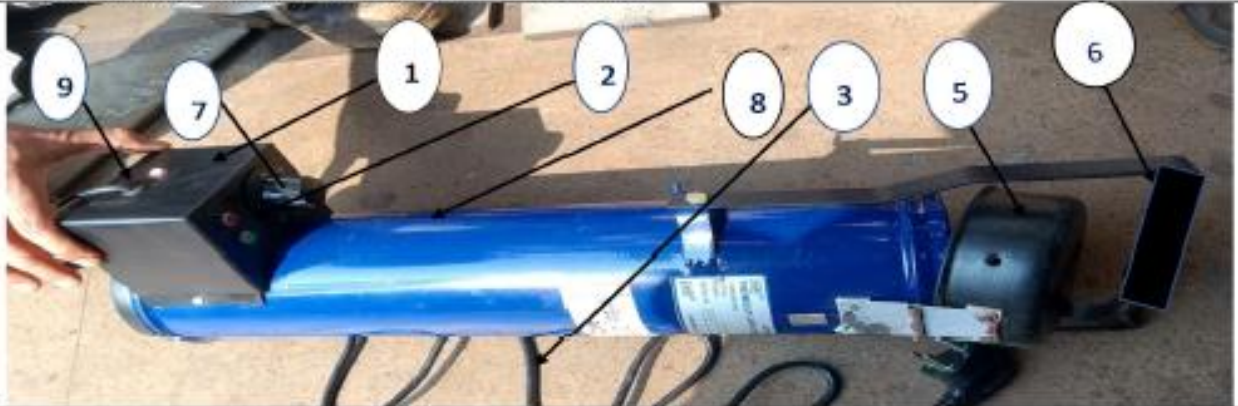
SL NO	CHECKING POINTS	YES/NO	SL NO	CHECKING POINTS	YES/NO
9	Expiry date is valid for Wheel.		10	Grinding M/C Speed is mentioned on Machine. Grinding Wheel Speed more than Grinding M/C Speed.	
11	Condition of Industrial Plug		12	Presence of Auto Off-Switch & Its Condition.	
13	Grinding machine should be double insulated otherwise grounded.		14	Power cable should be free from damages and connected with 3 pin industrial plug.	

Observation: -

Signature of Electrical In charge of the firm:

Signature of Safety Officer of the firm:

Name of the Vendor:
 Project:
 Location: _____ Date: _____
 Identification No (M/c Sl. No., Make & Model):



CHECK LIST OF OVEN USED FOR WELDING ELCTRODE DRYING

SL NO	CHECKING POINTS	YES / NO	SL NO	CHECKING POINTS	YES / NO
1	Thermostat should be calibrated and working condition.		2	Lamp should be function properly.	
3	Power cable to double insulated with earthing.		4	Insulation inside oven to be good condition.	
5	Lid is fitted properly in opening.		6	Insulated handle is provided.	
7	Temperature range to be marked.		8	Casing is good and sound condition and have body earthing	
9	A flexible gland should be provided to keep cable free from damage				

Observations :

Signature of Electrical
 In charge of the firm

Signature of Safety
 Officer of the firm:

Name of the Vendor:								
Project:								
Location:							Date:	
INDUSTRIAL TYPE ELECTRICAL EXTENSION BOARD INSPECTION CHECK LIST								
SL NO	IDENTIFICATION NO:	RATED RCCBO, MCB	RATED PLUG & SOCKET	CONDITION OF BOARD	BODY EARTHINING	INTERNAL CONNECTION OF RATED 3-CORE WIRE)	INSULATION OF WIRE(POWER CORD)	REMARKS
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
DATE:								
CHECKED BY (responsible person of the firm) :						Signature of Safety Officer of the firm:		

Name of the Vendor:												
Project:												
Location:										Date:		

SAFETY BELT (FULL BODY HARNESS) INSPECTION CHECK LIST

SL. NO	IDENTIFICATION NO: (Make & Model)	IS Mark	D-CLIP	DOUBLE LANYARD	BUKLE/ D-RING	HOOK	SHOCK ABSORBER	CLEAN LINESS	FULL BODY	STRAP INSPECTION	STICHES ON THE STRAP	REMARK
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

DATE:	
CHECKED BY :	Signature of Safety Officer of the firm:











Name of the Vendor:							
Project:							
Site/Location:						Date:	
TOOLS & TACKLES, CHAIN PULLEY BLOCK INSPECTION RECORD							
SI No.	Make / Model	Name of the Item & ID. No	TPI Ref. No	Capacity	Expiry Date	Condition	Rem
* <u>Observations:</u>							
Signature of Engineer/Supervisor:				Signature of Safety Officer of the fir			

Name of the Vendor: _____
 Project: _____
 Location: _____ Date: _____
 Identification No (M/c Sl. No., Make & Model): _____

WELDING MACHINE INSPECTION CHECKLIST



SL NO	CHECK ITEM	PHOTOS	Y/N	SL NO	CHECK ITEM	PHOTOS	Y/N
1	ON / OFF knob is provided(Check for damage and uninsulated knob)			2	Regulator with indicator is provided		
3	Welding cables connected to the welding machine with lugs at the joints			4	No damage in the insulation of welding cables		
5	Electrode rod holder and earthing holder are without damage			6	Industrial type Plug for power tapping cable of welding machine		
7	No internal live electrical parts of welding machine is exposed	30MA ELCB should be used.		8	Trolley without damaged wheels		
9	Fire extinguisher and fire bucket with sand availability						

SL NO	CHECKING POINTS	YES/ NO	SL NO	CHECKING POINTS	YES/ NO
10	Body earthing (Double Points)		11	MCB	
12	Wheels are rubber mounted		13	Rubber Mat Placed below Welding Machine.	
14	Is welding cable of copper core with ISI marked (IS: 9857) of reputed make				

*** Observations :**

Signature of Electrical In charge of the firm: _____

Signature of Safety Officer of the firm: _____

EQUIPMENT ID TAG

EQUIPMENT NAME:

SERIAL NO / ID MARK

TEST DATE:

DUE DATE:

TESTED BY:

SIGNATURE:

VENDOR NAME:

INTEGRITY PACT

Between

M/s Garden Reach Shipbuilders & Engineers Limited (GRSE) hereinafter referred to as "The Principal"
and
..... hereinafter referred to as "the Bidder/Contractor"

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for “Name of the job:-
-----”. The principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness /transparency in its relations with its Bidder(s)/ or Contractors (s).

In order to achieve these goals, the principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principals mentioned above.

Section 1- Commitments of the principal

[1] The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

- a. No employee of the principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The principal will in particular, before and during the tender process, provided to all Bidder(s) the same information and will not provide to any Bidder(s) confidential /additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contact execution.

c. The principal will exclude from the process all known prejudiced persons.

[2] If the principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2- Commitments of the Bidder(s)/Contractor(s)

[1] The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

- a. The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act, further the Bidder(s)/Contractor(s) will not use improperly, for purpose of competition or personal gain, or pass on to others, any information or document provided by the principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s) / Contractor(s) of Indian Nationality shall furnish the name and address of the foreign particulars, if any. Further details as mentioned in the "Guidelines on Indian agents of Foreign suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only, copy of the "Guidelines on Indian agent of foreign supplier" is annexed and marked as annex.
- e. The Bidder(s)/Contractor(S) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

[2] The Bidders(s)/ Contractor(s) will not instigate third persons to commit offences, outline above or be an accessory to such offence.

Section 3- Disqualification from tender process and exclusion from future contracts.

If the Bidder(s)/Contractor(s) before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the principal is entitled to disqualify the Bidders(s)/ Contractor(s) from the tender process or take action as per the extant procedure of the company.

Section 4- Compensation for Damages.

- 1) If the principal has disqualified the Bidder(s) from the tender process prior to the award according to section 3, the principal is entitled to demand and recover the damages equivalent to earnest Money deposit/Bid security.
- 2) If the Principal has terminated the contract according to section 3, or if the principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5- Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 2) If the Bidder makes incorrect statement on this subject he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealing"

Section 6- Equal treatment of all Bidders/Contractors/Sub-contractors.

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all sub-contractors a commitment in conformity with this integrity pact, and to submit it to the principal before contract signing.
- 2) The principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Sub-Contractors.
- 3) The Principal will disqualify from the tender process all bidders who do not sign this pact or violates its provisions.

Section 7- Criminal charges against violating Bidder(s) Contractor(s)/Sub-Contractor(s)

If the principal obtains knowledge of conduct of a Bidder, contractor or subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Sub contractor which constitutes corruption, or if the principal has substantive suspicion in this regard, the principal will inform the same to the Chief Vigilance Officer.

Section 8- Independent External Monitor/Monitors

- 1) The Principal appoints competent and credible Independent External Monitor for this pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 2) The Monitor is not subject to instructions by the representative of the parties and perform his functions neutrally and independently. He reports to the Chairman GRSE.
- 3) The Bidder(s)/Contractor (s) accepts that the Monitor has the right to access without restriction to all project documentation of the principal including that provided by the contractor. The contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s) /Subcontractor(s) with confidentiality.
- 4) The Principal will provide to the Monitor sufficient information about all meeting among the parties related to the project provided such meetings could have an impact on the contractual relations between the principal and the contractor, The parties offer to the Monitor the option to participate in such meetings.
- 5) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the management of the principal and request the management to discontinue or take corrective action, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 6) The Monitor will submit a written report to the Chairman, GRSE within 8 to 10 weeks from the date of reference or intimation to him by the principal and should the occasion arise, submit proposals for correcting problematic situations.
- 7) Monitor shall be entitled to compensation on the same terms as being extended to/provided to Independent Directors on the GRSE Board.
- 8) If the Monitor has reported to the Chairman GRSE a substantiated suspicion of an offence under relevant IPC/PC act, and the Chairman GRSE has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- 9) The word `Monitor' would include both Singular and plural.

Section 9- Pact Duration:

This pact begins, when both parties have legally signed it. It expires for the contractor 18 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairman of GRSE.

Section 10- Other provisions:

- 1) This agreement is subject to Indian Law, place of performance and jurisdiction is the Registered Office of the principal i.e. Kolkata.
- 2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & On behalf of the principal)

(For & On behalf of the Bidder/Contractor)

Place

Place

Date

Date

Witness 1
(Name & Address)

Witness 2
(Name & Address)