



निविदा पूछताछ
TENDER ENQUIRY

[सीमित निविदा]
[LIMITED TENDER]

माझगांव डॉक शिपबिल्डर्स लिमिटेड
(भारत सरकार का उपक्रम)
MAZAGON DOCK SHIPBUILDERS LIMITED
(Formerly known as Mazagon Dock Limited)
(A Govt. of India Undertaking)
CIN: L35100MH1934GOI002079
Dockyard Road, Mumbai 400 010
Website- www.mazagondock.in
Certified - ISO 9001: 2008 for Shipbuilding Division
GST ID : 27AAACM8029J1ZA

निविदा सं./Tender No	1700000552	विभाग/Department	P-17A COMMERCIAL
क्रय अधिकारी/Purchase Exec.	Bhuvnesh Kalwar	क्रय अधिकारी/Purchase Exec.	Bhuvnesh Kalwar
सेवा में /To		दूरभाष सं./Telephone No	23762738
		फैक्स सं./Fax No	23744709
		ई-मेल/E-Mail	bkalwar@mazdock.com
दूरभाष सं./Telephone		निविदा सं./Tender No	1700000552
फैक्स सं./Fax		निविदा तिथि/ Tender Date	22.03.2024
ई-मेल/E-Mail		निविदा बंद की तिथि/Tender Closing Date	26.03.2024
		निविदा बंद होने का समय/Tender Closing Time	14:00:00
		आरएफक्यू सं./RFQ No	2160000521

निविदा शुल्क/Tender Fee	रु/Rs	0.00
बयाना राशि/EMD Amount	रु/Rs	0.00
पूर्व बिड बैठक तिथि और समय/Pre Bid Meeting Date & Time		,00:00:00
निविदा खोलने की तिथि और समय/Tender Opening Date & Time		27.03.2024,14:00:00
प्रस्ताव वैधता तिथि है/Offer should be valid up to		24.07.2024
सुरक्षा जमा/Security Deposit		0.00 %आदेश मूल्य का/PO value
वरीय बैंक जमानत /Perf. Bank Guarantee		5.00 %आदेश मूल्य का/PO value

(आगे के विवरण हेतु कृपया सम्बंधित नियम शर्तों को पढ़ें। सुनिश्चित करें कि कोटेशन और संबंधित पत्राचार के लिए विभाग का नाम, क्रय अधिकारी का नाम, निविदा संख्या, बंद होने का समय एवं तिथि एवं आरएफक्यू सं. अपने कोटेशनमें लिखें।)

Kindly read and refer relevant terms & conditions for further details. Do ensure to Quote Department Name, Purchase Executive's Name, Tender Number, closing date & time and RFQ Number in your Quotation & related correspondence)

प्रिय महोदय/महोदया
Dear Sir / Madam ,

विषय /SUB:- SUPPLY OF AUTO TRANSFER SWITCHES FOR 07 SHIPS OF P17A.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड प्रतिष्ठित/संभावित आपूर्तिकर्ताओं से निम्न हेतु, प्रतियोगितात्मक दो बोली प्रणाली में (भाग -I तकनीकी - वाणिज्य बोली एवं भाग II मूल्य बोली) बोली आमंत्रित करती है।
Mazagon Dock Shipbuilders Limited (MDL) invites Competitive – Bid from reputed Supplier for the following in TWO BID system (Part - I Techno - Commercial Bid & Part - II Price Bid).

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
00100	सामग्री सं./ Material Number :- 110000000000015863 Auto transfer Switch (ATS)-150A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-150A	1 Number	31.07.2024
00200	सामग्री सं./ Material Number :- 110000000000015862	2 Number	31.07.2024

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	Auto transfer Switch (ATS)-250A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-250A		
00300	सामग्री सं./ Material Number :- 110000000000015864 DOCUMENTATION सामग्री वर्णन/Material Description :DOCUMENTATION	1 SET	31.07.2024
00400	SERVICES OF ENGINEER The Line item 00400 covers the following services	1 Activity unit	31.07.2024
000000001 0	सेवा सं./Service Number :- संक्षिप्त वर्णन/Short Description :- SERVICES OF ENGINEER	1 Activity unit	
00500	सामग्री सं./ Material Number :- B&D SPARES	1 SET	31.07.2024
00600	सामग्री सं./ Material Number :- 110000000000016251 Installation Material सामग्री वर्णन/Material Description :Installation Material including Cable Glands as per TSP cl. 2.4 & 2.5	1 SET	31.07.2024
00700	सामग्री सं./ Material Number :- 110000000000016252 On Board Spares for 1 year. सामग्री वर्णन/Material Description :On Board Spares for 1 year.	1 SET	31.07.2024
00800	सामग्री सं./ Material Number :- 110000000000016269 On Board Spares for 2 year. सामग्री वर्णन/Material Description :On Board Spares for 2 year.	1 SET	31.07.2024
00900	सामग्री सं./ Material Number :- 110000000000015863 Auto transfer Switch (ATS)-150A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-150A	1 Number	30.09.2024
01000	सामग्री सं./ Material Number :- 110000000000015862 Auto transfer Switch (ATS)-250A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-250A	2 Number	30.09.2024
01100	सामग्री सं./ Material Number :- 110000000000015864 DOCUMENTATION सामग्री वर्णन/Material Description :DOCUMENTATION	1 SET	30.09.2024
01200	SERVICES OF ENGINEER The Line item 01200 covers the following services	1 Activity unit	30.09.2024
000000001 0	सेवा सं./Service Number :- संक्षिप्त वर्णन/Short Description :- SERVICES OF ENGINEER	1 Activity unit	

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
01300	सामग्री सं./ Material Number :- 110000000000016251 Installation Material सामग्री वर्णन/Material Description :Installation Material including Cable Glands as per TSP cl. 2.4 & 2.5	1 SET	30.09.2024
01400	सामग्री सं./ Material Number :- 110000000000016252 On Board Spares for 1 year. सामग्री वर्णन/Material Description :On Board Spares for 1 year.	1 SET	30.09.2024
01500	सामग्री सं./ Material Number :- 110000000000016269 On Board Spares for 2 year. सामग्री वर्णन/Material Description :On Board Spares for 2 year.	1 SET	30.09.2024
01600	सामग्री सं./ Material Number :- 110000000000015863 Auto transfer Switch (ATS)-150A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-150A	1 Number	29.11.2024
01700	सामग्री सं./ Material Number :- 110000000000015862 Auto transfer Switch (ATS)-250A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-250A	2 Number	29.11.2024
01800	सामग्री सं./ Material Number :- 110000000000015864 DOCUMENTATION सामग्री वर्णन/Material Description :DOCUMENTATION	1 SET	29.11.2024
01900	SERVICES OF ENGINEER The Line item 01900 covers the following services	1 Activity unit	29.11.2024
0000000010	सेवा सं./Service Number :- संक्षिप्त वर्णन/Short Description :- SERVICES OF ENGINEER	1 Activity unit	
02000	सामग्री सं./ Material Number :- 110000000000016251 Installation Material सामग्री वर्णन/Material Description :Installation Material including Cable Glands as per TSP cl. 2.4 & 2.5	1 SET	29.11.2024
02100	सामग्री सं./ Material Number :- 110000000000016252 On Board Spares for 1 year. सामग्री वर्णन/Material Description :On Board Spares for 1 year.	1 SET	29.11.2024
02200	सामग्री सं./ Material Number :- 110000000000016269 On Board Spares for 2 year. सामग्री वर्णन/Material Description :On Board Spares for 2 year.	1 SET	29.11.2024
02300	सामग्री सं./ Material Number :- 110000000000015863 Auto transfer Switch (ATS)-150A	1 Number	31.01.2025

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-150A		
02400	सामग्री सं./ Material Number :- 110000000000015862 Auto transfer Switch (ATS)-250A	2 Number	31.01.2025
	सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-250A		
02500	सामग्री सं./ Material Number :- 110000000000015864 DOCUMENTATION	1 SET	31.01.2025
	सामग्री वर्णन/Material Description :DOCUMENTATION		
02600	SERVICES OF ENGINEER	1 Activity unit	31.01.2025
	The Line item 02600 covers the following services		
0000000010	सेवा सं./Service Number :- संक्षिप्त वर्णन/Short Description :- SERVICES OF ENGINEER	1 Activity unit	
02700	सामग्री सं./ Material Number :- 110000000000016251 Installation Material	1 SET	31.01.2025
	सामग्री वर्णन/Material Description :Installation Material including Cable Glands as per TSP cl. 2.4 & 2.5		
02800	सामग्री सं./ Material Number :- 110000000000016252 On Board Spares for 1 year.	1 SET	31.01.2025
	सामग्री वर्णन/Material Description :On Board Spares for 1 year.		
02900	सामग्री सं./ Material Number :- 110000000000016269 On Board Spares for 2 year.	1 SET	31.01.2025
	सामग्री वर्णन/Material Description :On Board Spares for 2 year.		
03000	सामग्री सं./ Material Number :- 110000000000015863 Auto transfer Switch (ATS)-150A	1 Number	31.10.2024
	सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-150A		
03100	सामग्री सं./ Material Number :- 110000000000015862 Auto transfer Switch (ATS)-250A	2 Number	31.10.2024
	सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-250A		
03200	सामग्री सं./ Material Number :- 110000000000015864 DOCUMENTATION	1 SET	31.10.2024
	सामग्री वर्णन/Material Description :DOCUMENTATION		
03300	SERVICES OF ENGINEER	1 Activity unit	31.10.2024
	The Line item 03300 covers the following services		
0000000010	सेवा सं./Service Number :- संक्षिप्त वर्णन/Short Description :- SERVICES OF ENGINEER	1 Activity unit	

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
03400	सामग्री सं./ Material Number :- 110000000000016251 Installation Material सामग्री वर्णन/Material Description :Installation Material including Cable Glands as per TSP cl. 2.4 & 2.5	1 SET	31.10.2024
03500	सामग्री सं./ Material Number :- 110000000000016252 On Board Spares for 1 year. सामग्री वर्णन/Material Description :On Board Spares for 1 year.	1 SET	31.10.2024
03600	सामग्री सं./ Material Number :- 110000000000016269 On Board Spares for 2 year. सामग्री वर्णन/Material Description :On Board Spares for 2 year.	1 SET	31.10.2024
03700	सामग्री सं./ Material Number :- 110000000000015863 Auto transfer Switch (ATS)-150A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-150A	1 Number	28.02.2025
03800	सामग्री सं./ Material Number :- 110000000000015862 Auto transfer Switch (ATS)-250A सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-250A	2 Number	28.02.2025
03900	सामग्री सं./ Material Number :- 110000000000015864 DOCUMENTATION सामग्री वर्णन/Material Description :DOCUMENTATION	1 SET	28.02.2025
04000	SERVICES OF ENGINEER The Line item 04000 covers the following services	1 Activity unit	28.02.2025
000000001 0	सेवा सं./Service Number :- संक्षिप्त वर्णन/Short Description :- SERVICES OF ENGINEER	1 Activity unit	
04100	सामग्री सं./ Material Number :- 110000000000016251 Installation Material सामग्री वर्णन/Material Description :Installation Material including Cable Glands as per TSP cl. 2.4 & 2.5	1 SET	28.02.2025
04200	सामग्री सं./ Material Number :- 110000000000016252 On Board Spares for 1 year. सामग्री वर्णन/Material Description :On Board Spares for 1 year.	1 SET	28.02.2025
04300	सामग्री सं./ Material Number :- 110000000000016269 On Board Spares for 2 year. सामग्री वर्णन/Material Description :On Board Spares for 2 year.	1 SET	28.02.2025
04400	सामग्री सं./ Material Number :- 110000000000015863 Auto transfer Switch (ATS)-150A	1 Number	31.10.2025

क्र सं. SL.No.	सामग्री / सेवा विवरण Material / Service Details	मात्रा / इकाई Quantity / unit	आपूर्ति तिथि Delivery Date
	सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-150A		
04500	सामग्री सं./ Material Number :- 110000000000015862 Auto transfer Switch (ATS)-250A	2 Number	31.10.2025
	सामग्री वर्णन/Material Description :Auto transfer Switch (ATS)-250A		
04600	सामग्री सं./ Material Number :- 110000000000015864 DOCUMENTATION	1 SET	31.10.2025
	सामग्री वर्णन/Material Description :DOCUMENTATION		
04700	SERVICES OF ENGINEER	1 Activity unit	31.10.2025
	The Line item 04700 covers the following services		
000000001 0	सेवा सं./Service Number :- संक्षिप्त वर्णन/Short Description :- SERVICES OF ENGINEER	1 Activity unit	
04800	सामग्री सं./ Material Number :- 110000000000016251 Installation Material	1 SET	31.10.2025
	सामग्री वर्णन/Material Description :Installation Material including Cable Glands as per TSP cl. 2.4 & 2.5		
04900	सामग्री सं./ Material Number :- 110000000000016252 On Board Spares for 1 year.	1 SET	31.10.2025
	सामग्री वर्णन/Material Description :On Board Spares for 1 year.		
05000	सामग्री सं./ Material Number :- 110000000000016269 On Board Spares for 2 year.	1 SET	31.10.2025
	सामग्री वर्णन/Material Description :On Board Spares for 2 year.		

नियम और शर्तें : भाग ए में लिखी हुई और इतर संलग्नपत्रे इस निविदा एक अभिन्न अंग हैं |हमें आशा है की,हमें प्रतियोगित्मिक और उचित प्रस्ताव इस निविदा के लिए प्राप्त होगा |
Terms & Conditions as indicated in Part A of this tender and other enclosures / annexures form an integral part of this tender document. We look forward to receive your most competitive and reasonable offer against this Tender.

माझगाँव डॉक शिपबिल्डर्स लिमिटेड के लिए /For Mazagon Dock Shipbuilders Ltd



Tender Enquiry

Enclosure to Tender Enquiry: Part 'A': Tender Terms and Conditions
Tender No. 1700000552
Item: Auto Transfer Switch (ATS)
Project: P17A
Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

Section I - Notice Inviting Tender (NIT)

1. Notice Inviting Tender (NIT): Mazagon Dock Shipbuilders Limited (MDL), Mumbai is India's leading Shipbuilding Company with ISO 9001:2015 accreditation. Mazagon Dock Shipbuilders Limited, invites offer in two bid system i.e. Part-I (Techno Commercial Bid) and Part-II (Price Bid) from Indian bidders through online bidding via MDL e-procurement portal (<https://eprocuremdl.nic.in>) for Item /Services.
2. **The Tender Document.**
 - i. **Bidders must read the complete 'Tender Document'.**
 - ii. Bids must be uploaded till the deadline for submission of bids. Bidders in their own interest are requested to upload their bids well in advance of tender closing date to avoid the last minute difficulties in uploading the bids. Request for extension, if at all to be made, shall be forwarded at least 3 working days in advance to the tender closing date / time (excluding tender closing date) with proper reasoning. **However, the extension would be granted by MDL on merit of the case at MDL discretion and would be binding on all bidders.**
3. **Eligibility Criteria for Participation in this Tender:** Subject to provisions in the Tender Document, participation in this Tender Process is limited to nominated bidders who fulfil the 'Eligibility' and Pre-Qualification criteria. Bidder shall be required to declare fulfilment of Eligibility Criteria.
4. **Submission of Bids:** No manual Bids shall be made available or accepted for submission (except for originals of scanned copies as per sub-clause above). Bidder must comply with the conditions of the eProcurement portal, including registration, compatible Digital Signature Certificate (DSC) etc. In the case of downloaded documents, Bidder must not make any changes to the contents of the documents while uploading, except for filling in the required information.
5. **Disclaimers and Rights of MDL:** The issue of the Tender Document does not imply that MDL is bound to select bid(s), and it reserves the right without assigning any reason to
 - (a) reject any or all of the Bids, or
 - (b) cancel the tender process; or
 - (c) abandon the procurement of the Goods/Services; or
 - (d) issue another tender for identical or similar Goods/Services.

Note: Please refer to appended TEF and the complete Tender Document for further details.

Tender Inviting Authority



Tender Enquiry

Enclosure to Tender Enquiry: Part 'A': Tender Terms and Conditions

Tender No. 1700000552

Item: Auto Transfer Switch (ATS)

Project: P17A

Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

Section II - Tender Enquiry Form (TEF)

1. Preamble:

- a) The tendered items are for 07 Ship sets of Project 17A. Four Ships viz. Y-12651, 12652, 12653, 12654 are being constructed at Mazagon Dock Shipbuilders Limited, Mumbai (herein referred as MDL), Mumbai and three ships viz. Y-3022, 3023 & 3024 are being constructed at Garden Reach Shipbuilders & Engineers Limited (herein referred as GRSE), Kolkata.
- b) The tender shall be processed by MDL for 07 Ships set. However, Purchase order for MDL and GRSE will be placed separately by respective shipyards as per scope given in tender.
- c) Equipment along with its associated auxiliaries/components for four Ship sets are to be delivered to MDL, Mumbai and for three Ship sets to be delivered to GRSE, Kolkata.
- d) **B&D spares:** Decision for placement of order for B&D spares will be taken at later date post ranging and scaling done by Indian Navy. MDL & GRSE will place orders for B&D spares separately. B&D Spares are to be delivered to Material Organization, Visakhapatnam.
- e) Tender line items are inseparable and non-divisible in nature.

2. Description & Scope of Supply / Work: (As per TSP DR/P17A/5317 Ver B dtd 22.11.2023)

3. Pre-Qualification Criteria:

(a) Technical Qualification/Work Experience Criteria for Goods:

Firms with past experience of designing, manufacturing, and successfully executed the supply of Auto Transfer Switch / Auto Changeover Switches to IN or Defence Establishment shall only be considered. The firm should have experience in the type testing of the ACOS/ATS. The relevant PO copies of the executed project to be submitted along with the Technical offer. Technical offers not complying/qualifying the TSP requirements shall be liable for technical disqualification.

4. Earnest Money Deposit (EMD) / Bid Security: Not Applicable

5. Validity Period of Offer:

- (a) Bid / Offer shall have the validity period of **120 days** from the tender closing date.
- (b) In case the day up to which the bids are to remain valid falls on/ subsequently declared a holiday or closed day for MDL, the bid validity shall automatically be deemed to be extended upto the next working day.
- (c) In exceptional circumstances, before the expiry of the original time limit, MDL may request the bidders to extend the validity period for a specified additional period. The request and the bidders' responses shall be made in writing or electronically. A bidder may agree to or reject the request. A bidder who has agreed to MDL's request for extension of bid validity, in no case, he shall be permitted to modify his bid.
- (d) Validity of the B&D spares shall be 365 days from the tender closing date or 365 days from date of submission of B&D spares list in ILMS format along with final CPL/PIL in ILMS format by the bidder whichever is later.

6. (A) Delivery Period/Contract Period (For Goods):

- (a) Delivery Period / Contract Period: Submission of Drawings and Documentation shall be as per TSP. Delivery/contract period of equipment shall be as below:

Yard	Delivery Period
Y-12651	03 months from PO date
Y-12652	30.09.2024
Y-12653	29.11.2024
Y-12654	31.01.2025
Y-03022	06 months from PO date



Tender Enquiry

Enclosure to Tender Enquiry: Part 'A': Tender Terms and Conditions
Tender No. 1700000552
Item: Auto Transfer Switch (ATS)
Project: P17A
Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

Y-03023	28.02.2025
Y-03024	31.10.2025

- (b) **Part Delivery:** Part Supply shall be accepted.
- (c) The delivery dates mentioned against each line item/service are for indicative purpose. The delivery/contract schedule given at above para shall be considered for all purposes.

7. **(A) Submission of Offer in Two Bid System:** Offer must be submitted in two parts as follows:

- a) **Part I (Techno Commercial Bid):** The bidder shall ensure following are essentially submitted in the Part-I bid as applicable:
- (i) Technical & Commercial offer.
 - (ii) Integrity Pact (IP) Signed (On each page) as per enclosed format.
 - (iii) Pre-qualification documents.
 - (iv) Valid MSME Udyam Certificate, MDL Registration Certificate & ISO Accreditation Certificate.
 - (v) Taxes and duties certificate for which they are registered.
 - (vi) Acceptance of Tender terms & General Condition of Contract (GCC).
 - (vii) Declaration of Local Content, preference for MSE Order 2012 / PPP Order 2017 for purchase preference.
 - (viii) Compliance Certificate w.r.t. Land Border Clause
 - (ix) Unique GeM Seller ID.
 - (x) Blank rate sheet indicating quoted/not quoted against each line item, tax percentage, type of taxes and FE content.
 - (xi) Bank details for payment by RTGS/NEFT in the format enclosed.
 - (xii) Bidder contact details as per attached annexure" Contact Details of the bidder.
 - (xiii) Undertaking for product support as per TSP.
 - (xiv) "Certificate of conformity" as per TSP.
 - (xv) TSP/SOTR Compliance Matrix/Deviation form
 - (xvi) Weight control Data sheet
 - (xvii) On Board spares (OBS) list for each ships set in excel format with cost breakup in percentage of total OBS cost.
 - (xviii) Additional documents as applicable to this tender.

Note: In any case, prices are not to be mentioned in Part-I bid.

- b) **Part-II (Price Bid):** Prices for each of the listed items has to be uploaded strictly in the prescribed format provided in the e-procurement portal. Bids received other than this given format will be **rejected**.

Note:

- (i) If, in the price structure quoted for the required goods, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly;
- (ii) If there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and
- (iii) If there is a discrepancy between words and figures, the amount in words shall prevail.
- (iv) For inseparable (overall lowest) requirement, if a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered.

8. **Bid Modification:** Modification in bids, if any, is to be made by bidders prior to the tender closing date & time.

9. **Bid Rejection Criteria:**

- (a) **Categorical rejection criteria:** The following conditions / deviations are non-negotiable and therefore any bid falling under these conditions / deviations shall be summarily rejected. Bidders



Tender Enquiry

Enclosure to Tender Enquiry: Part 'A': Tender Terms and Conditions

Tender No. 1700000552

Item: Auto Transfer Switch (ATS)

Project: P17A

Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

to note that they shall not be provided any opportunity to rectify these conditions / deviations post Part-I bid opening:

- (i) Bids received after tender closing date and time.
- (ii) Bids received other than through e-portal (in case of e-tender)
- (iii) Bidders who are debarred under PPP MII order 2017, GeM, CPPP including Tender holiday issued by MDL.

(b) **Liable rejection criteria:** Non-compliance/non-acceptance to any of the terms and conditions of the tender other than following shall render the bid liable for rejection;

- (i) Clause mentioned under loading criteria

Note: Equal time and opportunity for submission of deficient techno-commercial documents and clarification shall be given to the bidders. Bidders are required to submit such documents / clarifications within the duration / date stipulated by MDL failing which their bids will be rejected.

10. Performance Security (PS):

- (a) Separate Performance Security for an amount equal to 5% of each order value (excluding taxes, duties) payable in Indian Rupees shall be submitted.
- (b) Performance Security is to be furnished within 25 days after notification of the award of contract and it should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.
- (c) Performance security may be furnished in the form of NEFT / Demand Draft / Pay order / Bank Guarantee / Insurance Security Bond / e-Bank Guarantee in favour of Mazagon Dock Shipbuilders Limited, Mumbai from the list of Banks approved by SBI / Canara Bank published on MDL website.
- (d) PS can also be remitted online through MDL website: <https://www.mazagondock.in/OnlinePayment.aspx>.

Or

one can find Online payment tab on MDL website home page as under:

- Go to www.mazagondock.in
 - Click on Online payment tab available on home page.
 - 4 option viz. Career, Tender, Security, Scrap/ Disposal will be available.
 - Click on the Tender tab and make the payment online using Debit cards, Credit Cards, Net banking, BHIM/ UPI etc. after filling the required details.
- (e) Further, the bidder should specifically mention the details of company name as well as nature of remittance, tender number/order number etc. in the text/narration fields of Bank's NEFT remittance in order to identify the same. The duly filled & signed copy of annexure is to be submitted to respective dealing commercial executives.
 - (f) In cases where the supplier / contractor has not submitted the PS and already commenced supply / services, dealing commercial executives shall advice Finance department for withholding the PS from his bills if any. In such case, interest is to be recovered for the period starting from 26th day of transmission / notification of order/contract by any mode and amount involved at the relevant rate of interest. For Indian suppliers, the interest will be SBI BPLR plus 2%.
 - (g) PSU may submit Indemnity bond in lieu of Performance Security Bank Guarantee in case of single tender only.
 - (h) PSBG shall be valid for validity period of PSBG plus four weeks for settlement of claim.
 - (i) The performance security will be forfeited and credited to MDL's account in the event of a breach of contract by the contractor. It will be refunded to the contractor without interest, after he duly performs and completes the contract in all respects but not later than 60(sixty) days of completion of all such obligations including the warranty under the contract.
 - (j) Where the duration of contract is very long and banks are unwilling to issue BGs for long duration, rolling bank guarantee towards performance security can be submitted where it will be valid for at least one year with claim period of three months within which the same can be extended for further period by amendment.



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- (k) Performance security on reducing balance can be accepted when the contract period extends beyond one year. This will be effective on completion of one year and thereafter on six monthly / yearly basis.
- (l) No exemption can be granted to any unit including MSME, SSI units and MDL Registered Supplier.
- (m) In case of failure to submit performance security deposit by the supplier within 25 days of transmission / notification of order by any mode, the EMD will be forfeited (if available) and MDL reserves the right to cancel the order and invoke the risk purchase clause.
- (n) In the event of defects due to poor workmanship leading to non-performance of the Equipment/Item and bidder failure to attend the defects within a reasonable period of time, the PSBG will be encashed by MDL. MDL's decision in this regard shall be final and binding on the supplier / contractor.
- (o) In the event of postponing of delivery of deliverables/services or extension of guarantee desired & sought by MDL, the Performance Security has to be extended and its amendment charges shall be borne by MDL.

11. Warranty/Guarantee:

- (a) All equipment with associated controls/instrumentation shall be guaranteed for stipulated performance for 48 months from the date of supply of the equipment or 12 months from the commissioning of the ship, whichever is earlier. Refer TSP clause 10.
- (b) The Supplier cannot absolve their responsibility for warranty of material even though it is inspected by & approved by the inspection authorities.
- (c) If the defects are not remedied within a reasonable/stipulated time, MDL may proceed to rectify the defects at the supplier's risk & cost, but without prejudice to MDL's rights under the contract.
- (d) During the period of warranty / guarantee if any defect noticed in the equipment / item supplied, the supplier/ contractor will have to rectify such defects immediately at no extra cost to MDL.
- (e) **Warranty Extension Charges:** Supplier shall indicate the rate for extended warranty period 5 years, in case the warranty period as detailed above expires.

12. Currency of Bidding: Indian Rupees only.

13. Pricing:

- i) Prices of all items/services shall be quoted for delivery of the items/services to the following destination including Charges towards inland transportation, insurance, and other local costs incidental to the delivery of the Goods/Services.

Items/services	Delivery/Work Address
ATS	MDL Electronic Store, Anik Chembur, Mumbai for 4 MDL Shipset (Y-12651 to Y-12654)
ATS	GRSE, Kolkata Store for 3 Shipset (Y-3022 to Y-3024)
B&D Spares	Material Organization, Visakhapatnam

- ii) The prices quoted shall remain firm and fixed during the currency of the order / contract unless agreed otherwise by MDL.

14. Tie Breaker: When multiple bidders quote same price for particular item(s)/services under such situation, following action in given sequence shall be done:

- (a) In case of divisible, 50-50 qty to be given to each.
- (b) In case of non-divisible, supplementary bid to be obtained.
- (c) In case of both divisible and non-divisible, lottery option to be exercised after above options are not conclusive.

15. Taxes & Duties:

- (a) Bidders must clearly mention the applicable Taxes & Duties in the rate sheet enclosed in the tender. The item-wise rates (i.e. Basic + Packing, Forwarding, Freight & Insurance) quoted in the Rate sheet should exclude Taxes, Cess & Duties. Bidder should indicate GST rates as applicable separately



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under each of the head in the same rate sheet, which will be paid extra based on tax invoice to the extent applicable.

- (b) Supplier / contractor will not be entitled to any increase in rate of taxes occurring during the period of extended delivery completion schedule if there is delay in supplies / completion attributed to him. However, if there is a decrease in taxes, the same must be passed on to MDL.
- (c) Income tax applicable on cost of services rendered in India in relation to the contract, shall be payable by bidders.
- (d) TDS (GST) shall be carried out as per the existing Laws and Acts.
- (e) **Goods and Services Tax (GST):**
- (i) The prevailing rate of GST is to be indicated in your blank rate sheet in Part-I.
- (ii) For MDL's GST number, please visit our website. MDL's GST Number is **27AAACM8029J1ZA**.
- (iii) Bidder shall mention MDL GSTIN while invoicing and avoid any data entry error on GST portal.
- (iv) Bidders shall mandatorily mention their GST number in their offer.
- (v) Bidders shall mention the HSN (Harmonised System of Nomenclature) code for the quoted items and services in their offer. These codes must be in accordance with GST law and responsibility of specifying correct HSN codes for goods &/or services is that on the bidder. MDL shall not be responsible for any error in HSN no. specified by vendor. However, if any penalty is levied on MDL or any loss of ITC to MDL occurs or any delay in availing ITC by MDL occurs due to such error, vendor shall reimburse such loss after intimation by MDL or the amount shall be recovered from the SD or any outstanding payments to the vendor.
- (vi) Bidder must mention HSN numbers in invoices as reflected in the order. These codes must be in accordance with GST law.
- (vii) If bidder is registered under GST, bidder should note that successful bidder shall ensure timely submission of invoice and file all applicable returns under GST Law in the stipulated time & any losses of ITC to MDL arising due to delay in submission of invoice or delay in filing will be recovered from their invoice wherever MDL is eligible to avail tax credit. Any default towards payments of tax and / or uploading of monthly returns by supplier / contractor, MDL retains right to withhold payments towards tax portion until the same is corrected & complied by the supplier/ contractor with the requirement of GST along with satisfactory evidence.
- (viii) Original invoice to be submitted to Bill Receipt Centre at MDL gate and a copy of the invoice to be submitted to the respective stores.
- (ix) If the GST rating of supplier / contractor on GST portal/ Govt. website is found to be negative/ blacklisted, the MDL reserves the right to reject the offer of such bidders. Similarly, on post placement of the contract/order, MDL shall reimburse GST to the vendor only after he makes the payment of GST and fulfils all requirements as per GST law for successful GST along with penalties/interest, if any, incurred by MDL.
- (x) In case, MDL is unable to avail ITC, supplier/ contractor at their own cost shall rectify the shortcoming in the returns to be filed immediately thereafter. Further, if the ITC is delayed / denied to MDL/ reversed subsequently as per GST laws due to non/ delayed receipt of goods and/ or services and/ or tax invoices or expiry of timelines prescribed in GST Laws for availing ITC, nonpayment of taxes or non-filing of returns or any other reason not attributable to MDL, such amount shall be recoverable from supplier / contractor along with interest and penalty as levied on MDL under GST Law for the number of days the ITC was delayed. This amount shall be recovered from the SD or any outstanding payments. If the short coming is not rectified by supplier / contractor and MDL ends up in reversal of credits and / or payments, supplier / contractor is fully liable for making good all the loss incurred by MDL as a result of default.
- (xi) If bidder is registered under GST, Suppliers shall be responsible for the financial and non-financial consequences in case of non-compliance of GST provisions/requirements/timelines on their part.
- (f) **Custom Duty:**
- (i) Basic custom duty (BCD) and Cess as applicable on Import content will be reimbursed to the Indian bidders by MDL against documentary proof of payment (submissions of original receipts). Applicable GST on BCD and Cess shall also be payable.



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- (ii) Basic custom duty (BCD) and Cess as applicable on all imported goods shall be loaded appropriately for arriving at landed price.
- (iii) Indian Supplier will forward to MDL, separate lists of items required to be imported by themselves and their sub-supplier giving the respective drawing references three months prior to actual import for scrutiny by Directorate of NSM to MDL.
- (iv) At the time of claiming reimbursement based on above, the following documents have to be forwarded:
 - Copy of the Import Purchase Order
 - Copy of the Import Invoice
 - Certification by Supplier that items being imported are for fitment on warships.
 - Air Way Bill / Bill of Lading marked as Freight Paid
 - Insurance Policy/Insurance Document.
 - Evidence/Receipt towards payment of above taxes / duties
- (v) The following certificates will be given.
 - End Use Certificate if applicable. Format to be provided by vendor immediately after placement of order.
 - E-Way Bill as applicable as per prevailing rule.

16. Payment Terms:

- (a) Advance payment is not applicable for this tender.
 - (i) On receipt of Invoice, 95 % of Payment shall be made within 15 days of receipt/completion of material/services subject to acceptance of material/services and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any plus 100% taxes, duties etc. as applicable.
 - (ii) Payment of the balance of the value of the supplies/services may be payable and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any, on submission & confirmation of PS of equivalent amount valid up to warranty period plus 60 days claim period.
 - (iii) **Part Payment:** Part Supply, Part Payment shall be accepted.
- (b) **Services/Training:**
 - (i) 100% payment for all kinds of services like STW, HAT, SAT, installation, commissioning assistance, training wherever included in the same order will be admissible for payment **within 15 days** against certification by the designated acceptance authority after satisfactory completion of the respective activities/services.
 - (ii) In case SATs gets delayed beyond twelve months from the delivery date of the ship, then the said balance amount shall be released against submission of a Bank Guarantee for an equivalent amount valid till the estimated period of completion of SATs plus one month.
 - (iii) No claims by the firms will be entertained after 03 years from date of execution/completion of order.

17. Payment Mode & Documents:

- (a) All the payments to indigenous bidders due shall be made through Real Time Gross Settlement (RTGS) / National Electronic Fund Transfer (NEFT) by MDL.
- (b) **Documents for Payments for Indian Bidders (Goods):**
 - (i) Suppliers invoice.
 - (ii) PO copy with amendments if any
 - (iii) Confirmation of receipt and verification of Bank Guarantee for Advance Payment, Performance security as the case may be.
- (c) **Documents for Payments for Services:**



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- (i) Set of Original + 2 Copies of signed Invoice showing item / activity wise prices as per the Contract / Order.
- (ii) Work Completion Certificate Duly Certified by MDL.
- (iii) Documents Such as Guarantees etc. as per the order terms.
- (iv) Certificate issued by MDL confirming that the work is completed in time and no penalty is applicable OR in case of delays, admissible amount of penalty will be specified by MDL in this certificate for reduction of equal amount from Contractor's invoice. (MDL will issue this certificate generally by E-Mail immediately on completion of the work.

Note: Invoices should be submitted at "Receipt Section" adjacent to the ARS Punching Section, South Yard MDL.

(d) **Alternate MSME vendor payment through TReDS:**

- i) In order to address the financial needs of MSME firms, GoI has introduced a platform for facilitating the financing of trade receivables of MSMEs from buyers, through multiple financiers which is termed as Trade Receivables Discounting System (TReDS). At TReDS, auctioning of invoices at competitive & transparent environment is done by financiers based on Buyer's credit profile.
- ii) MDL is registered on the "Invoicemart" TReDS platform and M1xchange of M/s Mynd Solutions Pvt. Ltd.
- iii) MSME bidders desirous to receive payments through TReDS platform may avail the facility if they are already registered on
 - a) "Invoicemart" TReDS platform or by registering on it.
Contact details at "Invoicemart" TReDS platform are as below:
022 6235 7373 and a new mail id service@invoicemart.com.
 - b) "M1xchange" TReDS platform or by registering on it.
Contact details at "M1xchange" TReDS platform are as below:
+91 9920455374 Ms Ashwathi Jayandran email id: ashwathi.jayandran@m1xchange.com
+91 8839915724 Ms Priyanka Shah email id prinyaka.shah@m1xchange.com

- (e) **E Invoice:** Wherever GST is applicable, payment will be released against e-Invoice, or Invoice accompanied with Vendor's Self Declaration that " We do not fall under the category of registered persons notified under Rule 48(4) of the Central GST Rules, 2017 and we are not required to comply with e-Invoicing provisions under GST Act, as our aggregate turnover in any preceding financial year from 2017-18 onwards has not exceeded Rs. 05 Crores as per GST act".

18. Exchange Rate Variation (ERV).

- (a) ERV clause is applicable where the delivery period is more than one year (One-year period shall be from date of order) and there is FE content.
- (b) F.E. Elements: **Indigenous bidders quoting imported component should clearly state** Base Exchange rate for each such foreign currency used for converting the foreign exchange content into Indian Rupees **and FE content.**
- (c) To work out the variation due to changes (if any) in the exchange rate(s), the base date for this purpose will be the due date of opening of tenders. The variation may be allowed between the above base date and exchange rate applicable on the date of Bill of lading/contractual delivery if bill of lading is delayed whichever is earlier. ERV shall be reimbursed subject to submission of proof and limited to FE content in their offer/actual whichever is less.
- (d) The applicable exchange rates as above will be according to the TT selling rates of exchange as quoted by authorised exchange bankers approved by RBI on the dates in question
- (e) Please note that no upward revision in F.E. content, once specified in the order based on your quote will be entertained.
 - (f) FE variation up to +/- 5% to be absorbed by either side. FE Variation only on the percentage beyond +/- 5% (i.e. upward and downward) at the time of actual import shall be reimbursed/recovered by MDL.



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- (g) No ERV shall be payable on the portion of contract price paid to the contractor as an interest free advance.
- (h) Wherever stage payment, if any, is allowed with reference to procurement of bulk material, ERV will be limited to the date of such procurement or upto a date three months before scheduled delivery whichever is earlier.
- (i) Any increase or decrease in the customs duty by reason of the variation in the rate of exchange in terms of the contract will be to the buyer's account. In case the delivery period is revised/ extended, ERV will not be admissible, if this is due to the supplier's default; however, ERV benefits arising out of downward trends should be passed on to MDL.
- (i) Following documents are required for claiming ERV.
- A bill of ERV claim enclosing worksheet.
 - Banker's Certificate / debit advice detailing FE paid & Exchange rate, date of the transaction.
 - Copies of import orders placed on the suppliers.
 - Invoice of supplier for the relevant import orders

19. Mode of Dispatch: Road/Rail/Air/Sea.

20. Consignee:

- (a) Material scheduled for delivery are to be delivered at MDL (Electronic store, Anik Chembur located in Mumbai) & GRSE(Kolkatta).

Note:-In order to avoid inconvenience during the delivery of material, it is advisable for supplier to depute their representative in their own interest to coordinate the activities between the transporter, and MDL stores.

- (b) Following document should be submitted along with material:
- PO copy & subsequent amendments issued to it, if any.
 - Inspection Release Note (IRN) issued by nominated inspection officer.
 - Delivery Challans clearly indicating MDL Purchase Order No, Inspection Note Details and Packing List co-relating the items in the inspection report.
 - Copy of Warranty Certificate, Preservation Certificate etc.
 - Technical documentation, if applicable.
 - E-Way bill (if applicable) details are to be submitted during the delivery of the items.
- (c) Unloading of the equipment/ items will be arranged by MDL. In case of delivery of Large/ Bulky/ Heavy consignments, supplier is required to give 2 to 4 day's advance intimation to MDL clearly indicating approx. dimensions and weight of consignments for arranging fork lift/crane for unloading.
- (d) The Consignee details for Base & Depot spares shall be Material Superintendent, Material Organization, Naval Store(CWH), Material Organization, Visakhapatnam.
- (e) The consignment must be delivered by giving at least one-week advance notice to Material Superintendent, Naval Store(CWH), Material Organization, Visakhapatnam under intimation to MDL clearly indicating weight, dimensions of the consignment etc.

21. Work Done Certificate (WDC) / Completion Certificate (WCC):

- a. Work Completion certificate (WCC) shall be issued on Satisfactory completion of respective work with inspection and acceptance reports. Agency responsible to issue WCC shall be Planning/user dept. (Chief manager & above).
- b. The WDC shall include cumulative statement of jobs carried out till last WDC. The necessary service entry shall be made in SAP system by the WDC certifying authority & will be submitted to the contractor for further invoicing. The WDC shall bear relevant Service Entry Sheet No., PO No. and respective item Sr. No., sub service line item of the PO.
- c. The WDC must clearly mention the mutually agreed completion schedule and actual work done schedule for start date & end date.



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- d. In case of delays, the duration along with numbers of delayed days shall be specified in respective WDCs to invoke LD clause and effect recoveries from sub contractor's invoice.

22. Inspection & Testing:

For Goods:

It shall be as per TSP P17A/5317 Ver B dtd 22.11.2023. Other general conditions related to inspection of material are as under:

- (a) The decision of the Inspecting Authority or their representatives, as the case may be, on any question of the intent, meaning and the scope of Specifications / Standards shall be final, conclusive and binding on the Bidder/ Supplier / Contractor.
- (b) **Receipt Inspection:** MDL with WOT/SOT/Customer shall carry out necessary inspection of the items on receipt in the MDL on the basis of appropriate MDL Inspection system requirements & the Inspection documents submitted by suppliers. Any objection raised by MDL inspection team against quality of material or workmanship shall be satisfactorily corrected by the supplier at his expenses including replacement as may be required within shortest possible time within 30 days. Items damaged during transit shall also be rectified or replaced by the supplier within shortest possible time.
- (c) **Rejection of the material:** Any portion of the equipment found defective/rejected, the supplier shall collect the same at his cost from the MDL Yard, all incidental charges being born by supplier, (inclusive of custom duty, if payable), within 30 days from the date of intimation to the supplier of such rejection. The MDL reserves the rights to dispose-off the rejected item at the end of a total period of 90 days in any manner, to the best advantage to the MDL & recover storage charges & any consequential damages, from sale proceeds of such disposal.

23. Loading Criteria:

Deviations sought by the bidder shall be loaded on the bidder/s quoted prices during price evaluation by MDL for ranking of bids to judge L1, as under.

- (a) Varied payment terms quoted by indigenous bidders as compared to the terms stated in the Tender document shall be normalized by adopting the Benchmark Prime Lending Rate of State Bank of India plus 2% thereon on the amount (s) at variation and / or for the period (in no. of days) at variation.

24. Ranking of Bids: Tender line items are inseparable and non-divisible in nature.

- (a) Ranking of bids shall be done by considering following factors:
- The comparison of the responsive tenders shall be on total outgo from the MDL's pocket, for the procurement to be paid to the supplier or any third party, including all elements of costs duties, levies, freight insurance etc. excluding GST (where ITC is available). Therefore, it should normally be on the basis of FOR destination basis, duly delivered, commissioned, as the case may be.
 - B&D Spares and its escalation rates will not be considered for ranking.
 - OBS 2 year will not be considered for ranking.
 - Warranty extension charges will not be considered for ranking.
 - Extra Man Day rate will not be considered for ranking.
- (b) Discount given, if any, by the bidders, after the last date for submission of the bids but before opening of the price bids, will not be considered for determining the ranking of bids but will be considered after the said bidder is adjudged as L1.
- (c) On-line ranking visible to the bidders after opening Part-II price bid is without loading parameters. However, the L1 bidder will be evaluated offline by applying all applicable loading parameters as per tender and clarifications during techno-commercial scrutiny / TNC meeting.
- (d) Loading/Ranking will be done on original submitted bid at the time of closing of tender. However, in case MDL invites supplementary price bid from technically qualified bidders, then same will also be considered while ranking of bids.



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25. **Price Negotiation:** Usually, there shall be no price negotiations. However, MDL reserves its right to negotiate with the lowest acceptable bidder (L-1), who is techno-commercially suitable and on whom the contract would have been placed but for the decision to negotiate.

26. **Public Procurement Policy (Preference to Make In India) Order 2017:** The Government of India has issued revised Public Procurement (Preference to Make in India) order 2017 on 16th Sep' 2020 as part of its policy to encourage "Make in India" and promote manufacturing and production of goods and services in India with a view to enhancing income and employment. Subject to the provisions of this order and to any specific instructions issued by Nodal Ministry or in pursuance of this order, Purchase Preference shall be given to local suppliers in all the procurements undertaken by MDL in the manner specified below:

(a) **Aspects of 'Preference to Make in India':** The following terminology / definitions used in the policy is enumerated below and applicable to the tender:

(i) **Local content:** means the amount of value added in India which shall be the total value of item (goods, services or works or their combination) under procurement (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value in percent. Different definition of Local Content may be specified by the Nodal Ministry for items assigned to them, which will prevail over above.

Note:

a. The local content can be increased by vendors through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them.

b. Any participating bidder shall not be Joint Venture/Consortium; except in case of manufacture under license/technology collaboration agreements with phased indigenization under the PPP Make-in-India Policy 2017.

(ii) **Class-I Local Supplier:** means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content of 50%.

(iii) **Class-II Local Supplier:** means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content of 20% but less than that prescribed for "Class-I local supplier".

(iv) **Non-Local Supplier:** means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for "Class-II local supplier" under this order.

(v) **L1:** means the lowest tender or lowest bid or lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

(vi) **Margin of Purchase Preference:** means the maximum extent to which the price quoted by a **Class-I Local Supplier** may be above the L1 for the purpose of purchase preference. The margin of purchase preference shall be **20%**.

Note:

(i) Procedure for determination of L1 price shall be as per tender clause 'Ranking of Bids'.

(ii) Purchase preference shall be given to **Class-I local supplier only**. No Purchase Preference will be given to Class-II or Non-Local Suppliers.

(iii) If Price/s of all class-I local supplier/s in a tender is more than 20% of L1's price, no purchase preference shall be applicable.

(b) **Eligibility Criteria to bid:**

Class I and Class II local Supplier are eligible to bid for this tender (Non-Local Supplier shall be categorically rejected)

Parallel contract: The tender requirement is for Parallel Contract / Order basis in the ratio of 60:40. The Purchase Preference to MSE & Class I suppliers shall be as per PPP Order shall be applicable.



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Minimum local content: The "local content" requirement to categorize a supplier as "Class-I local supplier" is minimum 50%. For "Class-II local supplier", the "local content" requirement is minimum 20%.

(c) **Purchase Preference(PP):**

- a) Purchase preference shall be given to only "Class-I Local Supplier" (Class II Local Supplier are not eligible for purchase preference) in procurements undertaken in the manner specified in the succeeding sub-paras:
- b) The Class-I local suppliers, under PPP-MII Order, participating in any government tender, may or may not be MSEs, as defined under the MSME Act. Similarly, MSEs participating in any government tender, may or may not be Class-I local suppliers. Suppliers may be categorised in following four broad categories for consideration or applicability of purchase preference:

Category	Terminology
Supplier is both MSE & Class-I local supplier.	"MSE Class-I local supplier"
Supplier is MSE but not Class-I local supplier.	"MSE but non-Class-I local supplier"
Supplier is not MSE but is Class-I local supplier.	"Non-MSE but Class-I local supplier"
Supplier is neither MSE nor Class-I local.	"Non-MSE non-Class-I local supplier"

- c) In the procurement of goods, services which are covered by para above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone (Items covered under Para 3A(c) of PPP-MII Order, 2017) and both MSEs as well as Class-I local suppliers are eligible for purchase preference Purchase preference shall be accorded as under:

- i) L-1 is "MSE Class-I local supplier": Contract shall be awarded to L-1.
- ii) L-1 is not "MSE Class-I local supplier" but the "MSE Class-I local supplier" falls within 15% margin of purchase preference. Purchase preference shall be given to lowest quoting "MSE Class-I local supplier". If lowest quoting "MSE Class-I local supplier" does not accept the L-1 rates, the next higher "MSE Class-I local supplier" falling within 15% margin of purchase preference is to be given purchase preference and so on. If all "MSE Class-I local supplier" do not accept L-1 rates, then Para 24.3.4.5(iii) shall be followed.
- iii) If conditions mentioned in sub paras 24.3.4.5(i) and 24.3.4.5 (ii) above are not met i.e. L1 is not "MSE Class-I local supplier" and "MSE Class-I local supplier" is not eligible to take benefit of purchase preference as per PPP-MSE Order or all "MSE Class-I local supplier" do not accept L-1 rates, the contract is to be awarded / purchase preference to be given in different possible scenarios as under:
 - a) L-1 is "MSE but non-Class-I local supplier" or "Non-MSE but Class-I local supplier": Contract be awarded to L-1.
 - b) L-1 is "Non-MSE non-Class-I local supplier": Firstly, purchase preference shall be given to eligible MSE as per PPP-MSE Order. If MSEs not eligible or does not accept then purchase preference to be given to eligible Class-I Local supplier as per PPP-MII Order. If Class-I Local supplier is also not eligible or does not accept then contract be awarded to L-1.

- d) Non-local suppliers, including MSEs falling in the category of Non-local suppliers, shall be eligible to bid only against Global Tender Enquiry..

(d) **Declaration/Verification of Local content:**

- (i) Participating bidders to indicate the percentage of local content (i.e. value added in India) along with the details of location/s where the local value addition is made, in their bids, item wise or



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tender wise. The indicated local content percentage shall decide categorization of the vendors as "Class-I Local Supplier" / "Class-II Local Supplier" / "Non-local Supplier". All bidders should declare that the item and service offered meets the minimum local content & indicate its percentage in their offer which shall meet or excel required local content specified in tender. This declaration is necessary even if Custom Duty Exemption and / or ERV (if applicable) are not being sought. Certification as under is to be submitted mandatorily in technical Offer-Part-I bid.

Self-certification by Chief Financial Officer or Other legally responsible person nominated in writing by the Chief Executive or Senior Member / Person with Management Responsibility of Corporation / Partnership / Individual. However, in cases of procurement for value in excess of Rs. 10 Crores, the bidders shall provide a certificate from statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of supplier other than companies) giving the percentage of local content.

- (ii) Bidders to be noted that once the declaration / certification is committed at tender submission stage, the same cannot be altered subsequently at technical negotiation stage or after award of contract otherwise would be treated / considered as false declaration by bidder and necessary action shall be initiated as per tender clause '**Debarment of bidders / suppliers**' of the said Order for debarment.
- (iii) Declared Local Content shall be the basis for categorization of the vendors and tender evaluation. However, MDL reserves the right to undertake detailed examination of declared local content and may call vendor to submit relevant documents.
- (iv) In cases where MDL received the complaint from any vendor or person, along with the fees prescribed below, verification of Declared Local Content shall be carried out by seeking additional info as deemed necessary and the bidders (including unsuccessful bidders) against the tender shall be obliged to furnish the necessary documents. Failing to do so, the vendor may invite penal action as per the provisions of the Order. If MDL possess the capability, then it shall perform the verification. However, if in the opinion of MDL matter needs to be dealt at higher level, then the complaint shall be referred to Nodal Ministry and their fees / expenses / charges applicable as per the Nodal Ministry, if any, shall be borne by the complainant. MDL is authorized to prescribe fees for handling complaints under revised PPP MII 2017 Order. The fees for filing a complaint under the order shall be Rs. 10,000/- per case. The complaint shall be filed to the Chairman, Public Grievance Cell. The fee shall be deposited by complainant in MDL's Account by NEFT.
- (v) On scrutiny of offer, if all the bidders participating in the tender happen to have either not submitted the declaration certificate or not declared / specified the local content percentage in the declaration certificate or specified local content lower than the minimum local content requirement as per the tender, the subject tender shall be cancelled & matter shall be taken up with Ministry, by the user department, as per the procedure indicated at above Purchase Preference Para or as amended by MoD / DPIIT / DoE.
- (vi) On opening of the price bids, if it is identified that there is difference in local content declaration made & local content percentage as per price quoted is now not meeting (i.e. lesser than) the specified tender requirement (i.e. only on the quoted price without any loading) then such bidder shall be disqualified and shall not be considered for ranking purpose. The bid would be treated / considered as given false declaration and necessary action for debarment shall be initiated.

Note: The original of the uploaded copy of Local Content Declaration shall be received in MDL within seven MDL working days from the tender closing date. Not receipt of the same is a "liable for bid rejection" criteria.

(e) **PPP MSE Order 2012:**

Purchase Preference under PPP MSE Order 2012 shall prevail over Purchase preference under PPP MII Order 2017. Bidders to be noted that, in case of participation of MSE and Local Supplier against a same tender, MSE bidder will be given preference over other bidders to match with L1 bidder provided it has chosen Purchase Preference under PPP MSE Order 2012 in the tender & it is meeting Purchase Preference Criteria as per Public Procurement Policy for MSEs Order 2012.



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Bidder has to indicate his choice for Purchase Preference which will not be permitted to be changed once bid is opened.

Purchase Preference under PPP MSE Order 2012 shall prevail over Purchase preference under PPP MII Order 2017 and Purchase preference shall be accorded as per para 27(c)(a).

(f) **Price negotiation & contract placement:**

- (i) MDL has right to negotiate with L1 bidders on the quoted prices. However, it shall be ensured that Local Content percentage as declared by the vendor is maintained or increased but not reduced.
- (ii) After the contract is awarded and the supplies are completed, the supplier shall provide a "Local content certificate" (in the format provided at the time of PO placement) declaring the actual Local content percentage achieved while executing the contract. In case of failure to provide Local Content Certificate for the executed order within reasonable time, the issue be referred for debarment.

Note: In cases of procurement for value in excess of Rs. 10 Crores, the supplier shall provide a Local Content certificate (in the format provided at the time of PO placement) from statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of supplier other than companies) giving the percentage of local content.

- (iii) Supplier shall be intimated that the supporting documentation towards realization of committed Local Content as per the contract / order terms & conditions shall be maintained for a period of seven years from the date of completion of the contract for audit purpose. Nodal Ministry may constitute committees with internal & external experts for independent verification of self-declarations and auditor's / accountant's certificates on random basis and in the case of complaints.

Note: The Actual Local Content Certificate as above, shall be mandatorily submitted by the successful bidder post execution of PO.

(g) **Debarment of bidders / suppliers:**

- (i) False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of GFR 2017 for which a bidder or its successors can be debarred for up to 2 years as per Rule 151(iii) of GFR 2017 along with such other actions as may be permissible under law.
- (ii) A supplier who has been debarred by any procuring entity for violation of said Order shall not be eligible for preference under said Order for procurement by any other procuring entity for the duration of debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in such a manner that ongoing procurements are not disrupted.

- (h) **Reciprocity Clause:** Entities of countries which have been identified by the nodal Ministry/ Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry/ Department, except for the list of items published by the Ministry/ Department permitting their participation.

27. Integrity Pact (IP): 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. Therefore, non-acceptance and non-submission of IP by the vendors/bidders shall be liable for rejection. The format of integrity Pact is enclosed with tender documents. IP shall be submitted on plain paper.

The 'Integrity pact' duly filled as per enclosed format to be submitted along with the offer. Bidders to ensure that each page of Integrity pact shall be duly signed by the bidder. Non-submission of Integrity



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Pact by the bidders duly signed on each page along with Part-I bid shall be liable for rejection. Bidders shall send original IP immediately to MDL post submission of bid.

Independent External Monitors (IEM): The following Independent External Monitors (IEMs) 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.

For any administrative enquires and clarification on tender, bidders shall contact Commercial Dealing Executive. In case of issues related to Integrity Pact (IP) please contact Independent External Monitor (IEM) whose details are as below:

- ii) Mr. P V Rao
Email id: pasupuletirao@yahoo.co.in

28. Freak Low Bid:

- (a) If the quoted L-1 rate is less than estimate by more than 40% w.r.t. estimate and if the quoted L-1 rate is less than L2 by more than 30% w.r.t. L2 then such quote is shall be treated as freak low quote.
- (b) In case of freak low quote, meeting may be held with L-1 bidder to ascertain whether the quoted prices are "workable". The proper justification shall be given by the bidder.

29. Option Clause: MDL the right to increase/decrease the ordered quantity by up to 50 % at any time, till final delivery date (or the extended delivery date of the contract), by giving reasonable notice even though the quantity ordered initially has been supplied in full before the last date of the delivery period (or the extended delivery period)

30. Progress Monitoring & Review Mechanism: The required dates are indicated in tender. On placement of order a kick off meeting is to be held in MDL to chalk out the sequence and priority of the activities and the deliverables in line with the prevailing construction status of the ship. In this meeting, a progress monitoring team shall be constituted comprising vendor's representative engineer, MDL's executives (one each from Planning, Design and Ship Manager). This team shall carry out periodic reviews (initially quarterly followed by monthly reviews) to decide and chalk out the detailed sequence and priority of the completion of work and deliverables. The vendor would have to adhere to the recommendations and decisions of the said team while executing the work.

31. Hindrance Register: All hindrances with date of occurrences and removal shall be noted in the Hindrance Register. The Hindrance Register shall document reasons for the delay vis-à-vis the mutually agreed schedule. All hindrances such as delay in MDL Inputs (Drawings/Material/Documents/Services/Inspection call), delay by TPI/Inspection Agency/Customer(Navy), delay on account of specialist services, non-performance by the contractor, delinquency by the vendor, force majeure or any other relevant reason shall be recorded. The Hindrance Register shall be signed by the reps. of both MDL as well as Contractor. Executive in the rank of Chief Manager and above shall be the nodal executive of the User Department.

32. Public Grievance Cell: A public grievance cell headed by Shri R. R. Kumar, ED (EY) has been set up in the company. Members of public having complaints or grievances are advised to contact above Authorities on Wednesday between 10.00 hours and 12.30 hours in his office at 3rd Floor, West Block, Mazagon Dock Shipbuilders Ltd or send their complaints / grievances to him in writing for redressal. Telephone No. is 23762106(MDL).

33. Working on MDL Holidays: Intimation for working on Saturday / Sunday / holidays if required, should be submitted 2 working days prior to the date of holiday indicating names of personnel to Personnel Department and Security through concerned Department.



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34. **Breach of Obligation:** In case of breach of any obligation mentioned under, the bidder shall be disqualified / debarred from the bidding process for a period of one year from the date of notification;
- Bidder has withdrawn / modified / amended / impaired / derogated from the tender during the period of bid validity.
 - Bidder fails or refuses to execute the contract upon notification of acceptance of bid by MDL during the period of bid validity.
35. **Land Border:**
- This clause is applicable from a country which shares a land border with India” for the purpose of this Order means: -
 - An entity incorporated, established or registered in such a country; or
 - A subsidiary of an entity incorporated, established or registered in such a country; or
 - An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - An entity whose beneficial owner is situated in such a country; or
 - An Indian (or other) agent of such an entity; or
 - A natural person who is a citizen of such a country; or
 - A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
 - Bidders from a country sharing land border with India shall Mandatorily requires registration with registration Committee by the Department for promotion of Industry and Internal Trade (DPIIT). Registration shall not be applicable for the bidders from those country to which the Government of India has extended Line of credit or in which the government of India is engaged in development project.
 - Bidder shall comply orders issued by ministry of Finance department of expenditure Vide OM 6/18/2019- PPD dated 23 July 2020 & 24 July 2020 and OM No F.7/10/2021/-PPD(1) dated 23.02.2023.
36. **Discrepancies between Original and Additional/Scanned Copies of a Tender:**
Discrepancies can be observed in responsive tenders between the original copy and other copies of the same tender set. In such a case, the text, and so on, of the original copy will prevail. Such a discrepancy in an offer should be conveyed to the tenderer asking him to respond by a target date and if the tenderer does not agree to MDL’s observation, the tender is liable to be rejected.
37. **Right to Reject any or all Bids:**
MDL reserves its right to accept or reject any or all Bids, abandon/ cancel the Tender process, and issue another tender for the same or similar Goods/Services at any time before the award of the contract. It would have no liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such action(s).
38. **Cancellation of Procurement Process/ Rejection of All Bids/Re-tender:** If competition is lacking, then in such cases lack of competition shall not be determined solely on the basis of the number of Bidders. Even when only one Bid is submitted, the process may be considered valid provided following conditions are satisfied:
- The procurement was satisfactorily advertised and sufficient time was given for submission of bids.
 - The qualification criteria were not unduly restrictive; and
 - Prices are reasonable in comparison to market values
- The decision to cancel the procurement and reasons for such a decision shall be communicated to all bidders that participated in the procurement process. During Re-tendering, all participated bidders of earlier tender shall be informed.
39. **Conflict of Interest among Bidders/ Agents:** A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of MDL’s interests.



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The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- (i) they have controlling partner (s) in common; or
- (ii) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
- (iii) they have the same legal representative/agent for purposes of this bid; or
- (iv) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
- (v) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid.
- (vi) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:
 1. The principal manufacturer directly or through one Indian agent on his behalf; and
 2. Indian agent on behalf of only one principal.
- (vii) Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;
- (viii) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business

Note: The undertaking by the bidders for above para (Conflict of Interest among Bidders/ Agents) shall be submitted/uploaded along with Part I bid.

40. Corrigendum to Tender Document: Before the deadline for submitting bids, MDL may update, amend, modify, or supplement the information, assessment or assumptions contained in the Tender Document by issuing a corrigendum. The corrigendum shall be published in the same manner as the original Tender Document. Without any liability or obligation, the Portal may send intimation of such corrigendum to bidders who have downloaded the document under their login. However, the bidders' responsibility is to check the website(s) for any corrigendum. Any corrigendum thus issued shall be considered a part of the Tender Document. To give reasonable time to the prospective bidders to take such corrigendum into account in preparing their bids, MDL may suitably extend the deadline for the bid submission, as necessary. After MDL makes such modifications, any Bidder who has submitted his bid in response to the original invitation shall have the opportunity to either withdraw his bid or re-submit his bid superseding the original bid within the extended time of submission.

41. Contacting MDL during the evaluation: If a Bidder needs to contact MDL for any reason relating to this tender and/ or its bid, it should do so only in writing or electronically. Any effort by a Bidder to influence MDL during the processing of bids, evaluation, bid comparison or award decisions shall be construed as a violation of the Code of Integrity, and bid shall be liable to be rejected as nonresponsive in addition to other punitive actions for violation of Code of Integrity as per the Tender Document.

42. Cartel Formation/Pool Rates

It is possible that sometimes a group of bidders quote the same rate against a tender. Such pool/cartel formation is against the basic principle of competitive bidding and defeats the very purpose of an open and competitive tendering system. Such and similar tactics to avoid/control true competition in a tender leading to "Appreciable Adverse Effect on Competition" (AAEC) have been declared as an offence under the Competition Act, 2002, as amended by the Competition (Amendment) Act, 2007. Such practices should be severely discouraged with strong measures. In case of evidence of cartel formation, detailed cost analysis may be done by associating experts if necessary. Besides, suitable administrative actions



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can be resorted to, such as rejecting the offers, reporting the matter to trade associations, the Competition Commission or NSIC, etc., and requesting them, inter-alia, to take suitable strong actions against such firms. New firms may also be encouraged to get themselves registered for the subject goods to break the monopolistic attitude of the firms forming a cartel. Changes in the mode of procurement (GTE instead of OTE) and packaging/slicing of the tendered quantity and items may also be tried. A warning clause may also be included in the bid documents to discourage the bidders from indulging in such practices. Purchaser may also debar the tenderers indulging in cartel formation/collusive bidding/bid rigging for a period of two years from participation in the tenders of the Purchaser.

43. Registration on Government E-Marketplace (GeM) Portal:

Bidders shall mandatorily obtain the unique GeM Seller ID and submit the same to MDL prior to Price Bid opening. Requirement of unique GeM Seller ID is applicable only where the total amount of bid is more than Rs. 25 lakhs (inclusive of taxes etc.). Non-submission of Unique GeM Seller ID is under rejection criteria.

44. Additional Instructions:

- (a) Bidder shall abide to all tender terms & conditions including General Conditions of Contract (GCC).
- (b) The bidder shall also abide to all statutory requirements, Official Secret Act 1923, Security and Safety Rules as per references, which are part of this tender. If contractors' employees are not adhering to the health, safety and environment norms and the contractors not equipping their employees with suitable safety gears, will be viewed seriously. For non-adherence to above will be levied as per extant guidelines of Security and Safety Rules prevailing time to time, to the contractor without prejudice to other rights to enforce the safety requirements.
- (c) MDL shall not be bound by any printed conditions or provisions in the sellers bid forms or acknowledgement of contract, invoices, packing list and any other documents which purport to impose any conditions at variance with the tender terms / final negotiated & accepted terms.
- (d) In case of improper on-line filling or non-submission of Acceptance formats for Tender Enquiry Form (TEF), GCC, it shall be presumed that all our tender terms & conditions are acceptable to the bidder.
- (e) Wherever the clauses in tender document (Part A) are getting repeated in GCC, then in such cases bidders are requested to refer the clauses in the tender doc (Part A) and offer their comments/acceptance, accordingly.

45. E-Portal and E-Tender Guidance:

- a) **Submission of bids against e-Tenders:** The bidder is required to quote online on the *e-Procurement* website www.eprocuremdl.nic.in by the deadline, by submitting the Techno-commercial Bid & Price Bid in Electronic format only. The prices/quotes & a few declarations shall have to be entered/uploaded by the bidder online in the Tender's entry forms & other bid documents' scanned/soft copies shall have to be uploaded as part of the bid. All bids should be digitally signed using DSC (as explained below).
- b) To participate in e-Tender (s), every bidder must register themselves on the ASP's website (*registration is free of cost*) & must possess a legally valid Class-IIB or above Digital Signature Certificate (DSC) as per IT Act-2000, using which they can sign their electronic bids. The DSC can be procured from any Certifying Authority (CA) authorized by Controller of Certifying Authorities (CCA) of Govt. of India.
- c) National Informatics Centre (NIC) have been appointed by MDL as the Application Service Provider (ASP).
- d) Online User Manual is available on the website for the guidance of users & for participating in the e-Procurement/ e-Tendering, the bidder must ensure having the requisite (IT) infrastructure at their office premises.
- e) For any further details of e tendering & digital signatures, please contact 0120- 4200462, 0120-4001002, 8826246593, eproc-support@gov.in.
- f) Problems in hardware/software, internet connectivity, system configurations, Browser setting etc., for whatsoever reason shall not be considered for extension of tender closing date and time.



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g) MDL will not be responsible for an error in downloading of tender documents from web by the bidders. The version appearing on MDL website will be considered final and authentic.

46. **Contact Details for Queries: All bidders are requested to get their queries, if any, clarified in advance (i.e. 7 days in advance to tender closing date) to avoid last minute delay.** In case of any clarifications regarding tender, bidders are requested to contact the following executives.

Department	Name of Executives	Contact No	Email
Technical	Mr. C.G.K. Rao DGM/PE(D-P17A)	022 2376 3035	gk rao@mazdock.com
	Mr. Praful Hatekar, M (Design-Elec & Weapon)	022 2376 3287	pshatekar@mazdock.com
	Mr. Satish Chandra CM/PE(C-P17A)	022 2376 2747	schandra@mazdock.com
	Mr. Bhuvnesh Kalwar DM (C-P17A)	022 2376 2738	bkalwar@mazdock.com

47. We look forward to receive your most competitive and reasonable offer against this tender.

Yours faithfully,

For MAZAGON DOCK SHIPBUILDERS LIMITED



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Section III - General Conditions of Contract (GCC) for Goods and Services

The word 'Purchaser' refers to MAZAGON DOCK SHIPBUILDERS LIMITED, (MDL), a Company registered under the Indian Companies Act, 1913 and it includes its successors or assignees.

The word 'Bidder' (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any legal entity such as firm(s) of Proprietorship / Partnership Firm / Limited Liability Partnership / Private Limited / Limited company / Society registered under Society's Act / Statutory Bodies/ Consortium/ Joint Venture etc. participating in a procurement process.

The word 'Owner' means the person or authority with whom Mazagon Dock Shipbuilders Limited (Purchaser) has contracted to carry out work in relation to which orders are placed by the Purchaser on the Bidder/Supplier/Contractor under this contract for supply or manufacture of certain items and would include Department of Defence Production, Ministry of Defence, Government of India, the Indian Navy, the Coast Guard and any other specified authority.

1. Tenets of Interpretation (Applicable for Goods and Services):

Unless where the context requires otherwise, throughout the contract:

- (i) The heading of these conditions shall not affect the interpretation or construction thereof.
- (ii) Writing or written includes matter either whole or in part, in digital communications, manuscript, typewritten, lithographed, cyclostyled, photographed, or printed under or over signature or seal or digitally acceptable authentication, as the case may be.
- (iii) Words in the singular include the plural and vice-versa.
- (iv) Words importing the masculine gender shall be taken to include other genders, and words importing persons shall include any company or association or body of individuals, whether incorporated or not.
- (v) Terms and expression not herein defined shall have the meanings assigned to them in the contract Act, 1872 (as amended) or the Sale of Goods Act, 1930 (as amended) or the General Clauses Act, 1897 (as amended) or of INCOTERMS, (current edition published by the International Chamber of Commerce, Paris) as the case may be.
- (vi) Any reference to 'Goods' shall be deemed to include the incidental Works/ Services also.
- (vii) Any generic reference to GCC shall also imply a reference to TEF as well.
- (viii) In case of conflict, provisions of TEF shall prevail over those in GCC.
- (ix) Any reference to 'Contract' shall be deemed to include all other documents (inter-alia GCC, TEF).
- (x) Any reference to any legal Act, Government Policies or orders shall be deemed to include all amendments to such instruments, from time to time, till date.
- (xi) Fall Clause shall be expressly applicable in the case of Rate Contract.

2. Language of Contract (Applicable for Goods and Services):

Unless otherwise stipulated in TEF, the contract shall be written in the Official Language or English. All correspondence and other contract documents, which the parties exchange, shall also be written/ translated accordingly in that language. For purposes of interpretation of the contract, the English documents/ translation shall prevail.

3. Governing Laws and Jurisdiction (Applicable for Goods and Services):

3.1 Governing Laws and Jurisdiction:

- (i) This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Laws of India for the time being in force.
- (ii) Irrespective of the place of delivery, or the place of performance or the place of payments under the contract, the contract shall be deemed to have been made at the place from which the Purchase Order/Contract/Letter of Intent has been issued. The courts of such a place shall alone have jurisdiction to decide any dispute arising out or in respect of the contract.

3.2 Changes in Laws and Regulations



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Unless otherwise stipulated in the contract, if after the last deadline for the bid submission (Techno-commercial), any law, regulation, ordinance, order or bye-law having the force of law is enacted, promulgated, abrogated, or changed in India (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/ or the contract Price, then such Delivery Date and/ or Contract Price shall be correspondingly increased or decreased, to the extent that the contractor has thereby been affected in the performance of any of its obligations under the contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable.

4. Confidentiality, Secrecy and IPR Rights (Applicable for Goods and Services):

- (i) **IPR Rights:** All deliverables, outputs, plans, drawings, specifications, designs, reports, and other documents and software submitted by the contractor under this Contract shall become and remain the property of MDL and subject to laws of copyright and must not be shared with third parties or reproduced, whether in whole or part, without MDL's prior written consent. The contractor shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to MDL, together with a detailed inventory thereof. The contractor may retain a copy of such documents and software but shall not use it for any commercial purpose.
- (ii) **Confidentiality:** All documents, drawings, samples, data, associated correspondence or other information furnished by or on behalf of MDL to the contractor, in connection with the contract, whether such information has been furnished before, during or following completion or termination of the contract, are confidential and shall remain the property of MDL and shall not, without the prior written consent of MDL neither be divulged by the contractor to any third party, nor be used by him for any purpose other than the design, procurement, or other services and work required for the performance of this Contract. If advised by MDL, all copies of all such information in original shall be returned on completion of the contractor's performance and obligations under this contract.
- (iii) **Secrecy:** If the Contract declares the subject matter of this Contract as coming under the Official Secrets Act, 1923 or if the contract is marked as "Secret", the contractor shall take all reasonable steps necessary to ensure that all persons employed in any connection with the contract, have acknowledged their responsibilities and penalties for violations under the Official Secrets Act and any regulations framed thereunder.
- (iv) **Obligations of the contractor:**
 - a) Without MDL's prior written consent, the contractor shall not use the information mentioned above except for the sole purpose of performing this contract.
 - b) The contractor shall treat and mark all information as confidential (or Secret – as the case may) and shall not, without the written consent of MDL, divulge to any person other than the person(s) employed by the contractor in the performance of the contract. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for such performance for this contract.
 - c) Notwithstanding the above, the contractor may furnish to its holding company or its Subcontractor(s) such documents, data, and other information it receives from MDL to the extent required for performing the contract. In this event, the contractor shall obtain from such holding company/ Subcontractor(s) an undertaking of confidentiality (or secrecy – as the case may be) similar to that imposed on the contractor under the above clauses.
 - d) The obligation of the contractor under sub-clauses above, however, shall not apply to information that:
 - (i) the contractor needs to share with the institution(s) participating in the financing of the contract;
 - (ii) now or hereafter is or enters the public domain through no fault of Contractor;



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- (iii) can be proven to have been possessed by the contractor at the time of disclosure and which was not previously obtained, directly or indirectly, from MDL; or
- (iv) otherwise lawfully becomes available to the contractor from a third party that has no obligation of confidentiality.
- e) The above provisions shall not in any way modify any undertaking of confidentiality (or Secrecy – as the case may be) given by the contractor before the date of the contract in respect of the contract/ the Tender Document or any part thereof.
- f) The provisions of this clause shall survive completion or termination for whatever reason of the contract.

5. **Permits, Approvals and Licenses** (Applicable for Goods and Services):

Whenever the supply of Goods and incidental Works/ Services requires that the contractor obtain permits, approvals, and licenses from local public authorities, it shall be the contractor's sole responsibility to obtain these and keep these current and valid. Such requirements may include but not be restricted to export licence or environmental clearance if required. If requested by the contractor, MDL shall make its best effort to assist the contractor in complying with such requirements in a timely and expeditious manner, without any dilution of the Contractor's responsibility in this regard.

6. **Transfer of Title of Goods** (Applicable for Goods):

- (i) Unless otherwise stated in the contract, notwithstanding any inspection and approval by the Inspecting Officer on the contractor's premises, or any payments made to the contractor, property in the Goods (and resultant rights and liabilities) shall not pass on to MDL until the Goods have been received, inspected, and accepted by the consignee. The Goods and every constituent part thereof, whether in the possession or control of the contractor, his agents or servants or a carrier, or the joint possession of the contractor, his agents or servants and MDL, his agents, or servants, shall remain in every respect at the risk of the contractor, until their actual delivery to a person stipulated in the contract as the interim consignee for despatch to the consignee. The Contractor shall be responsible for all loss, destruction, damage, or deterioration of or to the Goods from any cause whatsoever while the Goods after approval by the Inspecting Officer are awaiting despatch or delivery or are in the course of transit from the contractor to the consignee or, as the case may be, interim consignee. The Contractor shall alone be entitled and responsible for making claims against any carrier in respect of non-delivery, short delivery, mis-delivery, loss, destruction, damage, or deterioration of the Goods entrusted to such carrier by the contractor for transmission to the consignee or the interim consignee as the case may be.
- (ii) Provided that where, under the terms of the contract, the Goods are required to be delivered to an interim consignee for despatch to the consignee, the Goods shall be at MDL's risk after their delivery to the interim consignee.

7. **Extension of Delivery Period** (Applicable for Goods):

- (i) If at any time during the currency of the contract, the contractor encounters conditions hindering timely delivery of the Goods and performance of incidental Works/ Services, he shall promptly inform MDL in writing about the same and its likely duration. He must make a request to MDL for an extension of the delivery schedule. On receiving the contractor's communication, MDL shall examine the situation and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages and with and without denial clause by issuing an amendment to the contract.
- (ii) **Conditions for Extension of Delivery Period:** When the period of delivery is extended due to unexcused delay by the contractor, the amendment extending the delivery period shall, inter alia, be subject to the following conditions:



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- a. **Liquidated Damages:** MDL shall recover from the contractor, under the provisions of this clause, liquidated damages on the Goods and incidental Works/ Services, which the contractor has failed to deliver within the delivery period stipulated in the contract.
- b. **Denial Clause:**
 - (i) No increases in price on account of any statutory increase in or fresh Imposition of GST, customs duty or on account of any other taxes/ duty/ cess/ levy), leviable in respect of the Goods and incidental Works/ Services stipulated in the said contract which takes place after the original delivery date, shall be admissible on such of the said Goods, as are delivered after the said date; and
 - (ii) Notwithstanding any stipulation in the contract for an increase in price on any other ground, including price variation clause or foreign exchange rate variation, or any other variation clause, no such increase after the original delivery date shall be admissible on such goods delivered after the said date.
 - (iii) Nevertheless, MDL shall be entitled to the benefit of any decrease in price on account of reduction in or remission of GST, customs duty or on account of any other Tax or duty or any other ground as stipulated in the price variation clause or foreign exchange rate variation or any other variation clause which takes place after the expiry of the original delivery date.
- (iii) **Liquidated damages**

If the contractor fails to deliver any or all of the Goods or fails to perform the incidental Works/ Services (e.g. installation, commissioning or operator training) within the time frame(s) incorporated in the contract, MDL shall, without prejudice to other rights and remedies available to MDL under the contract, deduct from the contract price, as agreed liquidated damages, but not as a penalty, a sum equivalent to the 0.5 % percent (excluding taxes) of the delivered price of the delayed Goods and/ or incidental Works/ Services for each week of delay or part thereof until actual delivery or performance, subject to a maximum deduction of the 5% of the delayed Goods' or incidental Works/ Services' contract price(s). Besides liquidated damages during such a delay, the denial clause shall also apply. Any failure or delay by any sub-contractor, though their employment may have been sanctioned shall not be admitted as a ground for any extension of time or for exempting the contractor from liability for any such loss or damage as aforesaid.

8. Defaults, Breaches & Termination of Contract (Applicable for Goods and Services):

- (i) Termination due to Breach, Default, and Insolvency
 - a. **Defaults and Breach of Contract:** In case the contractor undergoes insolvency or receivership; neglects or defaults, or expresses inability or disinclination to honour his obligations relating to the performance of the contract or ethical standards or any other obligation that substantively affects MDL's rights and benefits under the contract, it shall be treated as a breach of Contract. Such defaults could include inter-alia:
 - (i) **Default in Performance and Obligations:** If the contractor fails to deliver any or all of the Goods or fails to perform any other contractual obligations (including Code of Integrity or obligation to maintain eligibility and Qualifications based on which contract was awarded) within the period stipulated in the contract or within any extension thereof granted by MDL.
 - (ii) **Insolvency:** If the contractor being an individual or if a firm, any partner thereof, shall at any time, be adjudged insolvent or shall have a receiving order or order for the administration of his estate made against him or shall take any proceeding for composition under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or enter into any assignment or composition with his creditors or suspend payment or if the firm be dissolved under the Partnership Act, or



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- (iii) **Liquidation:** if the contractor is a company being wound up voluntarily or by order of a Court or a Receiver, Liquidator or Manager on behalf of the Debenture-holders is appointed, or circumstances shall have arisen which entitle the Court or Debenture-holders to appoint a Receiver, Liquidator or Manager.
- b. **Notice for Default:** As soon as a breach of contract is noticed, a show-cause 'Notice of Default' shall be issued to the contractor, giving two weeks' notice, reserving the right to invoke contractual remedies. After such a show-cause notice, all payments to the contractor would be temporarily withheld to safeguard needed recoveries that may become due on invoking contractual remedies.
- c. **Terminations for Default:**
- (i) **Notice for Termination for Default:** In the event of unsatisfactory resolution of 'Notice of Default' within two weeks of its issue as per sub-clause above, MDL if so decided, shall by written Notice of Termination for Default sent to the contractor, terminate the contract in whole or in part, without compensation to the contractor.
- (ii) Such termination shall not prejudice or affect the rights and remedies, including under sub-clause below, which have accrued and/ or shall accrue to MDL after that.
- (iii) Unless otherwise instructed by MDL, the contractor shall continue to perform the contract to the extent not terminated. All warranty obligations, if any, shall continue to survive despite the termination.
- d. **Contractual Remedies for Breaches/Defaults or Termination for Default:** If there is an unsatisfactory resolution within this period, MDL shall take one; or more of the following contractual remedies.
- (i) Temporary withhold payments due to the contractor till recoveries due to invocation of other contractual remedies are complete.
- (ii) Call back any loaned property or advances of payment, if any, with the levy of interest at the prevailing rate (MIBID - Mumbai Interbank Bid Rate).
- (iii) Recover liquidated damages and invoke denial clause for delays.
- (iv) Encash and/ or Forfeit performance or other contractual securities.
- (v) Prefer claims against insurances, if any.
- (vi) Terminate contract for default, fully or partially including its right for Risk-and-Cost Procurement as per following sub-clause.
- (vii) **Risk and Cost Procurement:** In addition to termination for default, MDL shall be entitled, and it shall be lawful on his part, to procure Goods same to those terminated, with such terms and conditions and in such manner as it deems fit at the "Risk and Cost" of the contractor. Such 'Risk and Cost Procurement' must be contracted within one year from the breach of Contract. The Contractor shall be liable for any loss which MDL may sustain on that account provided the procurement, or, if there is an agreement to procure, such agreement is made. The Contractor shall not be entitled to any gain on such procurement, and the manner and method of such procurement shall be in the entire discretion of MDL. It shall not be necessary for MDL to notify the contractor of such procurement. It shall, however, be at the discretion of MDL to collect or not the security deposit from the firm/ firms on whom the contract is placed at the risk and cost of the defaulted firm.
- Note: Regarding the Goods which are not readily available in the market and where procurement difficulties are experienced, the period for making risk procurement shall be nine months instead of six months provided above.
- (viii) Initiate proceedings in a court of law for the transgression of the law, tort, and loss, not addressable by the above means.

9. Closure of Contract (Applicable for Goods and Services):



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The contract shall stand closed upon successful performance of all obligations by the firm, including completion of warranty obligations and final payment. If no claim is received within 03 years from last supplies/services, then no claim shall be entertained thereafter.

10. **General** (Applicable for Goods and Services)
Unless otherwise indicated specifically by the bidder / contractor in his bid, it shall be construed as his acceptance of all the conditions mentioned in this GCC.
11. **Communication and language for documentation** (Applicable for Goods and Services)
Any letter, facsimile message, e-mail intimation or notice sent to the Bidder/Supplier/ Contractor at the last known address mentioned in the offer / order shall be deemed to be valid communication for the purpose of the order/contract. Unless stated otherwise by the purchaser, Language for communication and all documentation shall be same, which the Purchaser has used, in the tender enquiry.
12. **Preservation and maintenance:** (Applicable for Goods)
Should any material require any preservation till its final installation/fitment, the detailed procedure (Long term and short term) for the same as also the time of interval after which the state of preservation needs to be reviewed is to be stated by the Bidder/Supplier/Contractor. Further the de-preservation prior to the material/equipment being commissioned and the maintenance procedure together with its periodicity is also to be indicated by the Bidder / Supplier / Contractor.
13. **Freight and insurance.** (Applicable for Goods)
For Indigenous Bidders. Bidder shall quote for 'Door Delivery to Purchaser,' all charges towards door delivery viz. transport, Insurance charges etc. shall be borne by the Bidder / Supplier / Contractor.
For Foreign Bidders: For overseas bidders, bidder shall agree for supplying the goods on CIF/CIP, Incoterm basis. The Bidder / Supplier / Contractor shall immediately on despatch of the items, inform all relevant details of despatch such as Order Number, Bill of Lading/AWB Number marked as Freight Paid, Insurance policy/document, number of packages, value of consignment, invoice number etc. as per contractual terms.
14. **Demurrage (Applicable for Goods):** Storage, and Demurrage, fines etc. charges will be payable by the Bidder / Supplier / Contractor for all shipments in case of improper documentation, wrong declarations, error in weight measurements, packing list, invoice, late receipt of documents etc. i.e. for reasons which are not attributable to the purchaser.
15. **Cancellation of tender** (Applicable for Goods and Services)
The Purchaser reserves the right to cancel/withdraw the tender in toto or part and or award the contract / order in full or part without assigning any reason whatsoever and without thereby incurring any liability to the affected Bidder or Bidders or any obligations to inform the affected Bidder or Bidders of the grounds for MDL action.
16. **Facility provision** (Applicable only for Services)
The Purchaser would consider providing facilities like - compressed air at one point, crane facility for handling heavy loads for lowering onto the ship and water intended for use by the Contractor / Bidder for execution of contract for working within the Purchaser's premises at no extra cost to the Contractor / Bidder. Industrial gases, electrical power, office space / RU store facility may be provided at one point only if possible and available and on chargeable basis if so desired by the Contractor / Bidder. The contractor / Bidder shall make his own arrangements for fixing necessary



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fittings, wires, welding machines, transformer, etc. for power, connecting lines, storage etc for water and necessary fittings, pipes, breaker, hoses etc. for compressed air.

17. **Purchaser's property.** (Applicable for Goods and Services)

All property (such as materials, drawings, documents etc.) issued by the Purchaser or any other individual or firm on behalf of the Purchaser in connection with the contract shall remain confidential, being the property of the Purchaser and the Bidder/Supplier/Contractor shall undertake to return all such property so issued and will be responsible for any or all loss thereof and damage thereto resulting from whatever causes and shall reimburse the Purchaser the full amount of loss and damage.

On completion of work in any compartment / location of the purchaser's premises, the Bidder/Supplier/Contractor must ensure that the place is left in a reasonably clean state and all scrap is transferred to nearby scrap-bins.

18. **Risk purchase** (Applicable for Goods and Services)

If the equipment / article / service or any portion thereof be not delivered / performed by the scheduled delivery date / period, any stoppage or discontinuation of ordered supply / awarded contract without written consent by Purchaser or not meeting the required quality standards the Purchaser shall be at liberty, without prejudice to the right of the Purchaser to recover Liquidated Damages / penalty as provided for in these conditions or to any other remedy for breach of contract, to terminate the contract either wholly or to the extent of such default. Amounts advanced or part thereof corresponding to the undelivered supply shall be recoverable from the Contractor / Bidder at the prevailing bank rate (Benchmark Prime Lending Rate (BPLR) by SBI) of interest.

The Purchaser shall also be at liberty to purchase, manufacture or supply from stock as it deems fit, other articles of the same to make good such default and/or in the event of the contract being terminated, the balance of the articles of the remaining to be delivered there under. Any excess over the purchase price, cost of manufacture or value of any articles supplied from the stock, as the case may be, over the contract price shall be recoverable from the Bidder / Supplier / Contractor.

19. **Recovery-adjustment provisions:** (Applicable for Goods and Services)

Payment made under one order shall not be assigned or adjusted to any other order except to the extent agreed upon in writing by the Purchaser. During the currency of the contract, if any sum of money is payable by the Bidder / Supplier / Contractor the same shall be deducted from any sum then due or thereafter may become due to the Bidder / Supplier / Contractor under the contract or any other contract with the Purchaser.

20. **Indemnification** (Applicable for Goods and Services):

The Bidder / Supplier / Contractor, his employees, licences, agents or Sub-Supplier / Sub-contractor, while on site of the Purchaser for the purpose of this contract, indemnifies the Purchaser against direct damage and/or injury to the property and/or the person of the Purchaser or that of Purchaser's employees, agents, Sub-Contractors / Suppliers occurring and to the extent caused by the negligence of the Bidder / Supplier / Contractor, his employees, licensees, agents or Sub-contractor by making good such damages to the property, or compensating personal injury and the total liability for such damages or injury shall be as mutually discussed and agreed to.

21. **Transfer of suppliers / contractor's rights:** (Applicable for Goods and Services)

The Bidder / Supplier / Contractor shall not either wholly or partly sell, transfer, assign or otherwise dispose of the rights, liabilities and obligations under the contract between him and the Purchaser without prior consent of the Purchaser in writing.

22. **Subcontract and right of purchaser** (Applicable for Goods and Services)



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The Bidder / Supplier / Contractor under no circumstances undertake or subcontract any work / contract from or to any other Sub-contractor without prior written approval of the Competent Authority of Purchaser. In the event it is found that such practice has been indulged in, the contract is liable to be terminated without notice and the Bidder / Supplier / Contractor is debarred all from future tender enquiries / work orders. However, in no circumstances a contractor is permitted to subcontract any part of the contract to the bidders who had quoted for the concerned tender.

23. Patent rights (Applicable for Goods and Services)

The Bidder / Supplier / Contractor shall hold harmless and keep the Purchaser indemnified against all claims arising as a result of infringement of any patent / copy rights on account of manufacture, sale or use of articles covered by the order.

24. Agents/Agency Commission :(Applicable for Goods and Services)

The seller confirms and declares to the buyer that the seller is the original manufacturer or authorized distributor/stockiest of original manufacturer of the goods referred to in this contract and has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommended to the Buyer or any of its functionaries, whether officially or unofficially , to the award of the Contract / Purchase order to the Seller; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation.

The Seller agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Seller has engaged any such individual/firm, and paid or intended to pay any amount, gift, reward , fees, commission or consideration to such person, party, firm or institution , whether before or after the signing of this Contract / Purchase order, the Seller will be liable to refund that amount to the Buyer. The seller will also be debarred from participation in any RFQ/Tender for new projects/program with Buyer for a minimum period of five years.

The buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Seller who shall in such event be liable to refund all payments made by the buyer in terms of the Contract along with interest at the rate of 2% per annum or 6% whichever is higher above LIBOR (London Inter Bank Offer Rate) (for foreign vendors) and base rate of SBI plus 2% (for Indian Vendors).

The Buyer will also have the right to recover any such amount from any contracts concluded earlier with Buyer.

25. Use of undue influence / corrupt practices :(Applicable for Goods and Services) The Bidder / Supplier / Contractor undertakes that he has not used corrupt practices or used any undue influence which is not admissible as per Indian law to obtain contract/order or in doing any business with the purchaser.

If found that Bidder / Supplier / Contractor is involved in such wrong practices, then Purchaser is entitled to cancel the contract/s and all or any other contracts and then to recover from the Bidder / Supplier / Contractor the amounts of any loss arising from such contracts' cancellation, including but not limited to imposition of penal damages, forfeiture of Performance security, encashment of the Bank Guarantee and refund of the amounts paid by the Purchaser.

26. Immunity of Government of India clause: (Applicable for Goods and Services)

It is expressly understood and agreed by and between M/s. (Bidder / Supplier / Contractor) and Mazagon Dock Shipbuilders Limited, Dockyard Road, Mumbai - 400 010 (MDL) is entering into this Agreement solely on its own behalf and not on the behalf of any person or entity. In particular, it is expressly understood and agreed that the Government of India is not a party to this Agreement and has no liabilities, obligations or rights hereunder. It is expressly understood and agreed that MDL is an independent legal entity with power and authority to enter into contracts solely in its own behalf



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under the applicable of Laws of India and general principles of Contract Law. The (Bidder / Supplier / Contractor) expressly agrees, acknowledges and understands that MDL is not an agent, representative or delegate of the Government of India. It is further understood and agreed that the Government of India is not and shall not be liable for any acts, omissions and commissions, breaches or other wrongs arising out of the contract. Accordingly, (Bidder / Supplier / Contractor) hereby expressly waives, releases and foregoes any and all actions or claims, including cross claims, impleader claims or counter claims against the Government of India arising out of this contract and covenants not to sue Government of India in any manner, claim, cause of action or thing whatsoever arising of or under this Agreement.

27. **Export licence** (Applicable for Goods and Services): The export licenses that may be required for delivery of the various items/equipment to MDL shall be arranged by the Bidder / Supplier / Contractor from the concerned authorities in their country without any time and cost implications on the Purchaser.
28. **Banned or de-listed contractors / suppliers.** (Applicable for Goods and Services)
The Bidder / Supplier / Contractor declares that they being Proprietors / Directors / Partners have not been any time individually or collectively blacklisted or banned or de-listed by any Government or quasi Government agencies or PSUs. If a bidder's entities as stated above have been blacklisted or banned or de-listed by any Government or quasi Government agencies or PSUs, this fact must be clearly stated and it may not necessarily be a cause for disqualifying him.
29. **Duty of personnel of supplier/contractor** (Applicable for Goods and Services)
MDL being a Defence Public Sector Undertaking, Bidder / Supplier / Contractor undertakes that their personnel deployed in connection with the entrusted work will not indulge in any activities other than the duties assigned to them.
30. **Dispute resolution mechanism and arbitration** (Applicable for Goods and Services)
(a) Dispute resolution mechanism(DRM)
i) Any dispute/differences between the parties arising out of and in connection with the contract shall be settled amicably by mutual negotiations at HoS/HoD level.
ii) In case of non-settlement by (i) above, if at any time, before, during or after the contract period any unsettled claim, dispute or difference arose between the parties, upon or in relation to or in connection with or in any way touching or concerning this tender/agreement/order/contract, the same shall be referred to the concerned Functional Director.
The Functional Director shall then nominate an Executive of the rank of General Manager whom he thinks fit and competent or a Committee of Executives who/which shall then scrutinise the claims/disputes that have been referred to the concerned functional Director and make efforts for amicable settlements by mutual discussions/negotiations.
iii) In case no amicable settlement is arrived by (ii) above within a period of three months, then the contractor shall approach Public Grievance Cell and address the disputes as per the provisions made under the relevant clause of the contract.
iv) In case the issues/disputes do not get settled within a period of six months from the date of submission of the dispute to the Grievance Cell, then the contractor may invoke Arbitration Clause of the contract.
(b) Arbitration (Applicable for Goods and Services)
Unresolved disputes/differences, if any, shall then be settled by arbitration. The Arbitration proceedings shall be conducted at Mumbai, India, in English Language, under the Arbitration and Conciliation Act, 1996.
MDL prefers to have arbitration through Institutes such as Indian Council of Arbitration (ICA)/ICA-DR, with the mutual consent of the parties.



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In case of unresolved difference/dispute between the Purchaser and Supplier, being Central Public Sector Enterprises/Central Govt. departments, the disputes shall be resolved firstly through mutual discussion or through the empowered agencies of the Govt. or through arbitration by reference by either party to the department of Public Enterprises, as per extant guidelines. If disputes/differences remain unresolved/unexecuted, the same shall be referred first to the Cabinet Secretariat and then, if necessary to the PMO.

Any changes to arbitration clause must be vetted by HOD (Legal) before incorporation in contract/PO.

31. **Jurisdiction of courts** (Applicable for Goods and Services)

All contracts shall be deemed to have been wholly made in Mumbai and all claims there under are payable in Mumbai 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 Mumbai City, Maharashtra State, India i.e. courts in Mumbai shall alone have jurisdiction to decide upon any dispute arising out of or in respect of the contract.

32. **Contract labour (regulation and abolition) act 1970**(Applicable for Services)

Contractor / Bidder shall obtain licence under Section 12 and 13 of the Contract Labour (Regulation and Abolition) Act, 1970 and rules made there under and the same should be kept valid at least until the expiry of contract with Purchaser. The registration and Licence under the Contract Labour (Regulation and Abolition) Act 1970 shall be renewed in time every year and if work continues for more than a year, a copy of the Licence is produced as and when demanded by the concerned authorities of Purchaser.

The Contractor / Bidder shall carryout his obligations and duties under the Contract Labour (Regulation and Abolition) Act, 1970 and the rules framed there under.

In the event any employee/s of Contractor / Bidder is advised by the concerned Department to deploy their employees for job during weekly-off, Sundays and holidays, the Contractor / Bidder must inform through Concerned Department the name/s of the employee/s in the prescribed format to CISF / Security and to the concerned Divisional Personnel by mentioning specifically 'Compensatory - Off', before 3 days from the date actual payment.

33. **Minimum wages act** (Applicable for Services)

The Contractor / Bidder shall pay to his employees not less than the minimum wages and allowances applicable to the Engineering Industry as notified from time to time by the Central Government or the State Government whichever is higher under the Minimum Wages Act. Contractor / Bidder shall be responsible for timely payment of wages of all his employees engaged in the Purchaser's Yard, not less than the prescribed minimum wages in each case and without any deductions of any kind, except as specified by Government or permissible under the Payment of Wages Act.

The Contractor / Bidder must settle all the pending dues of the employees i.e. arrears of wages, proportionate leave wages, proportionate bonus payment, etc.

Before winding up the site, the Contractor / Bidder shall pay all terminal dues to his employees such as Notice pay, Gratuity, Retrenchment compensation, etc.

34. **Bonus Act** (Applicable for Services)

The Contractor / Bidder shall pay to his eligible employees a Statutory Bonus as per 'Payment of Bonus Act' at the rate prescribed by the Statutory Authorities from time to time.

35. **Factories Act** (Applicable for Services)

The Contractor / Bidder shall observe all applicable Rules and Regulations stipulated under Factories Act applicable to contract labour.

The Contractor / Bidder shall maintain a separate register prescribed under the Act and pay Privilege Leave wages to all eligible employees.



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Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

On completion of execution of the contract and before winding up, the Contractor / Bidder shall pay proportionate Privilege Leave wages to all eligible employees.

36. Employees' Provident Funds and Miscellaneous Provisions Act, 1952 (Applicable for Services)
The Contractor / Bidder, where applicable, shall cover his employees deployed in the Purchaser's Yard

i. under the Employees' Provident Funds and Miscellaneous Act, 1952,
ii. under the Family Pension Scheme, and
iii. under the Employees' Deposit Linked Insurance Scheme and pay the contributions both in respect of his employees and his own. He shall submit all the necessary returns and other particulars periodically as prescribed under the said Act. Contractor / Bidder shall cover from the first day working all his contract labour on MDL jobs by filling requisite returns to concerned Statutory authorities and obtaining Code Numbers / Account Numbers. Contractor / Bidder shall remit employees' and employers' contributions directly to the concerned authorities along with Inspection and Administrative Charges as per relevant provisions of the concerned Acts and Schemes made there under within 15 days from the close of every month. The Contractor / Bidder must submit copies of P. F. dues payment challans, copy of Form No. 12 (A), copy of form No. 6 (A) (Annually) and copies of Muster Roll of their workmen every month to Corporate Personnel Department before renewal of passes for entry into the yard. The Contractor / Bidder must also attend to P. F. Inspections by concerned authorities and submit copy of the Inspection Report.

The Contractor / Bidder through his own P. F. code number shall fill in P. F. / Pension settlement forms of all the employees engaged in Purchaser's Yard, well in advance of last working day and forwards the said settlement forms to the respective P. F. Commissioner's office for settlement. Contractors who are yet to obtain PF code shall apply for Code nos to PF Commissioners Office and furnish copies of the same to Corporate Personnel Department. Purchaser shall recover PF dues from the contractors running bills till such time the PF Code no is obtained.

The Contractor / Bidder may contact Corporate Personnel Department for the purpose to seek any / all clarification / necessary advice for completion of procedural work such as filling labour challans, E. S. I., P. F. - declaration forms, covering their labour under Group Insurance Policy, etc. An Administrative charge @ Rs. 10/- per employee per month for such consultancy will be recovered from all the contractors from the bills of the respective contracts

37. Employees' State Insurance Act (Applicable for Services)

The Contractor / Bidder should also cover all the eligible contract labourers working on MDL jobs, under the Employees' State Insurance Act and Scheme by furnishing necessary returns to appropriate authority and pay both employees' and employers' contributions in respect of these employees to the concerned authorities within 20 days from the close of every month. The contractor shall produce copy of R. D. F. duly acknowledged by ESI local office for confirmation that the workmen are covered under ESI Act and Scheme.

Contractor / Bidder should produce proof of such remittances to Corporate Personnel Department of MDL along with full details of contributions etc. within 25 days from the close of month. He shall also give an undertaking that he will not engage any one on our work who is not duly covered under the said Act and Scheme. The contract employees who are out of coverage of ESI Act and Scheme should be covered under Group Insurance Policy linked with workman compensation Act. Those Bidders / contractors do not have their ESI Code No.; they should submit documentary evidence of application for obtaining ESI Code no to Corporate Personnel Department.

38. Safety:(Applicable for Goods & Services)

The Contractor / Bidder must observe all safety precautions in connection with the work to be performed by him, his agents or labourers. In the event of any accident happening in our yard resulting in 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



Tender Enquiry

Enclosure to Tender Enquiry: Part 'A': Tender Terms and Conditions

Tender No. 1700000552

Item: Auto Transfer Switch (ATS)

Project: P17A

Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

follow from the loss and / or injuries to the persons involved in such accidents. The standard of safety to be observed in the Company shall be decided by the Executive-in-Charge Safety, or any Executive appointed for the purpose before the commencement of work in the yard. It will be essential for contractor to ascertain the standard precautions which contractor is required to observe in discharging his work as per the standards prevalent in MDL. The decision of MDL in matters concerning Safety shall be final and binding on the contractor.

The Contractor / Bidder shall be required to provide his workmen with Boiler Suits of any suitable colour other than blue or white, with the Name of the Contractor in prominent letters on the boiler suits along with personal protection gears like safety shoes, hand gloves etc. workmen of the Contractor / Bidder must wear throughout their working while in the premises of MDL. Contractor's workmen working without safety gears are to be disallowed for work.

39. Police verification of employees (Applicable for Services)

Contractor / Bidder shall have to produce and submit to the Chief Security Executive of Purchaser, verification through Mumbai Police of Character and Antecedents of their employees / workers for while working on ships under construction in Purchaser's Yards, for working onboard ships under modernization / refit / repairs at Mumbai ports / Naval Dockyard. Entry passes will not be issued in the absence of Police Verification Report and employees without Police Verification shall not be employed by them in Purchaser's Yard / Mumbai ports / Naval Dockyard and any lapse on the part of Contractor / Bidder shall be viewed seriously as per applicable laws of the land. Employment of any Foreign National during the contract period would be permitted with prior permission of Purchaser.


40. Force Majeure. (Applicable for Goods and Services)

If at any time during the execution of the goods / service order, the performance in whole or in part by either Purchaser or and by the Bidder(s) / Supplier(s) / Contractor(s) is / are delayed by any reason of force majeure situations such as acts of civil war, civil commotion, sabotage, hostilities, war, fires, explosions, epidemics, natural calamities like floods, earthquakes, volcanoes, storms, acts of God and laws of respective governments or any other causes beyond the control of either parties, hereinafter referred to as "events", provided notice of the occurrence of such event/s is / are communicated by either party, to the other party within 21 days from the date of occurrence thereof, neither party shall by reason such events be entitled to terminate the contract nor shall either party have any claim for damages against the other in respect of such non-performance and or delay in performance of the contract / order. Executions on either side shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of Purchaser as to whether activities can resume or not, shall be conclusive and final. Occurrence of the events to be certified by Chamber of Commerce / Indian High Commission or Embassies / Government in that Country.

The performance in whole or in part under the captioned tender / contract is prevented or delayed by reason of any such event for a period exceeding sixty days either party may at its option terminate the contract / further processing of the tender. The relative obligations of both the parties remain suspended during the actual period of force majeure.

The Purchaser may extend the delivery schedule as mutually agreed, on receipt of written communication from the Bidder / Supplier / Contractor regarding occurrence of 'Force Majeure' conditions, but not exceeding six months from the scheduled delivery date. If the 'Force Majeure' conditions extend beyond this period, the Purchaser shall have the right to cancel the order without any financial implication to the Purchaser or on terms mutually agreed to.

Received vide MDL letter DR/P17A/3311 dated 22 Nov 23

 MAZAGON DOCK LTD. (A Government of India Undertaking) Dockyard Road, Mumbai - 400010.	SHIP BUILDING - DESIGN ELECTRICAL & WEAPON SECTION	TSP NO. DR/P17A/5317	REV. NO. B
	PROJECT 17A (MDL YARD NO.12651/652/653/654) (GRSE YARD NO. 3022/3023/3024)	DATE	22 NOV 2023
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MAZAGON DOCK SHIPBUILDERS LIMITED

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DOCKYARD ROAD, MUMBAI - 400 010

SHIPBUILDING DESIGN- ELECTRICAL & WEAPONS DEPARTMENT

TECHNICAL SPECIFICATIONS FOR PROCUREMENT



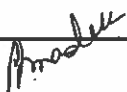
OF

AUTO TRANSFER SWITCHES (ATS)

PROJECT	:	P-17A
YARD NO	:	MDL - 12651 / 12652 / 12653 / 12654 GRSE - 3022/3023/3024
CLIENT	:	NHQ OF MOD (N)
DOCUMENT DATE	:	22 nd Nov 2023
DOCUMENT NO	:	DR/17A/5317
DOCUMENT REV.	:	B
NSM REFERENCE	:	SOTR No.EED-50-78

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अनुमोदित एवं महानिदेशक, डब्ल्यू डी को
For Director General W D B

B	Revised as per WDB comments vide letter CD/17A604 dated 12 Sept 23	22/11/2023	
A	First Issue	08/08/2023	
REV	DESCRIPTION	DATE	AUTHORISED BY
 P S HATEKAR M (D-L&Wn)	 S G SONAWANE CM(D-L & Wn)	 P K MODAK HOS/DGM(D-L&Wn)	
Prepared By	Checked By	Approved By	

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For Director General VV D S



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1. GENERAL DESCRIPTION:

1.1 Introduction:

- The items projected in this specification are for use on Indian Naval ships (project-17A) being built by Mazagon Dock Shipbuilders Ltd. A total of four ships are likely to be built.
- All the items offered must be suitable for application in Naval Ships.

1.2 Supplier's offer

- The offer shall strictly conform to the details indicated in this specification and in the referred standards/ drawings/ documents (all latest issues are to be followed).
- Unless referred to by supplier, before submission of offer and obtain clarifications, omission, if any, in the specifications shall not relieve the supplier of his responsibility to ascertain these requirement to perform work and furnish material in accordance with codes specified.
- The offer should be complete with all relevant details as per para 2- scope of supply.
- Any clarification required (regarding Technical specification/requirement) should be sought prior to submission of the offer.
- Technical offers not qualifying/ complying with the TSP requirement may be eligible for rejection.

1.3 Prequalification Criteria: Firms with past experience of designing, manufacturing, and successfully executed the supply of Auto Transfer Switch / Auto Changeover Switches to IN or Defence Establishment shall only be considered. The firm should have experience in the type testing of the ACOS/ATS. The relevant PO copies of the executed project to be submitted along with the Technical Offer. Technical offers not complying / qualifying the TSP requirements shall be liable for technical disqualification.

1.4 Deviations

- In case the items offered are not conforming to the details given in the specification, the offer should clearly indicate a comparative statement of the requirement indicated in the specification and the relevant specifications vis-à-vis of the items offered, indicating limitations / advantage, for NHQ of MoD(N) / MDL consideration. Please refer **Appendix '01'** for the Format. Onus of proving the equivalence of the alternate specifications, if any, quoted in lieu of those required as per tender rests with the supplier
- No deviations will be granted after the placement of order.
- In case, no deviation is indicated in the offer, it shall be presumed that the offer confirms to the technical specifications and therefore binding on the supplier.

1.5 Certificate of Conformity: The offer should be complete with the Certificate of Conformity as per the format given at **Appendix '02'**. Important Note: The offer received without the Certificate of Conformity duly filled in and signed will not be considered.

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1.6 Compliance Matrix: Para wise compliance to TSP and Technical requirement as per **Appendix '06'** has to be submitted along with technical offer. Non-submission / non-compliance of compliance matrix shall render the technical offer for technical disqualification.

1.7 General specifications

a. Ship mission: The ship shall be capable of carrying out typical 42-day mission, with extended mission time in out of area operation. All equipment, sensors, instruments etc. shall have maximum reliability and maintainability for mission time for 42 days.

b. Seaway Conditions: The equipment shall be capable of efficient and unrestricted operation without any deviation from its normal operating parameters under the following seaway conditions.

- Static Trim of 5 degrees without any limitation on time
- Dynamic Trim of 15 degrees.
- Static Roll of 15 degrees without any limitation on time
- Dynamic Roll of 25 degrees
- Pitch of +/- 7 degrees

c. Environmental Condition: The equipment offered for marine applications shall achieve specified output and function smoothly under tropical conditions. It shall withstand air contamination through oil, salt and other contaminants associated with the marine environment. The equipment shall be water drip proof as a minimum requirement. The equipment shall operate under the following environmental conditions:

Sr. No.	Condition	Normal	Closed down
1	Temperature <ul style="list-style-type: none">Ambient airSea water	5 to 45 ^o C 2 to 35 ^o C	
2	Relative Humidity at 38 ^o C	up to 100 %	up to 100 %
3	Salinity of water	Up to 35000ppm	

d. Space constraints: Ease of operation and maintenance is to be ensured while designing the layout of the system components. The manufacturer shall indicate the maintenance envelope required to carry out maintenance onboard during normal operation and refit. The equipment dimensions would be finalized by MDL/NHQ of MoD(N). The supplier is to indicate the following limiting dimensions and mass.

≤	Length	Breadth	Height	Mass

e. Interchangeability: Design tolerances shall be such that all items and parts having dimensions and characteristics permitted by the item specifications

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may be used as replacements without departure from the specified equipment performance and shall be interchangeable between different units.

f. Materials: A component-wise material specification list shall be provided by the Supplier. Materials / Components approved for use on board Naval ships are only shall be used. Materials used are to retain anticorrosion properties during operation under sea conditions for the given period and service life. Materials used are not to emit toxic and foul smelling gasses at all the operating modes.

2. Scope of Supply: The Scope of this TSP covers the supply of Auto Transfer Switch (ATS) listed below. It also includes the design, manufacturing, Inspection, testing, Documentation, installation materials, Cable glands and cable lugs/ferrules required for ATS.

Auto Transfer Switch: The list of ATS are listed below;

Sr. No.	ATS Type	Qty./Ship (nos.)	Total Qty. for 4 Ships (MDL)	Total Qty. for 3 Ships (GRSE)
a.	Auto Transfer Switch 250A	02	08	06
b.	Auto Transfer Switch 150A	01	04	03
	TOTAL	03	12	09

2.1 Spares: On Board Spares, Base & Depot Spares and required test equipment including cost of each item shall be recommended in the offer by the supplier. Such recommendations shall commensurate with the reliability of critical components and component's use in the equipment. Supplier is to provide complete details /part numbers of all spares supplied by vendors/sub-vendors. List of spares shall be submitted, in the ILMS format (INCAT compatible format detailed at Appendix-05) in soft as well as hard copies, after placement of order.

2.2 On Board Spares (OBS): On Board Spares are to be recommended by the supplier. Such recommendations shall commensurate with reliability of critical components and component's use in the system. One ship set per ship of On-board spares for the exploitation period of ONE and TWO years are to be offered along with technical offers. The decision on exploitation period of ONE or TWO year will be taken during TNC. The make, model number and quantity of each item that is offered have to be clearly indicated in the technical offer. The cost for each item has to be indicated separately. The basis of ranging and scaling of spares has to be clearly indicated with the offer. The list of OBS has to be provided in INCAT (Indian Naval Catalogue of Inventory) compatible format in electronic media for ILMS (Integrated Logistics Management System) after placement of order. OBS are required for 4 ships by MDL and 3 ships by GRSE. OEM has to recommend OBS for 1 or 2 years considering the requirement mentioned above.

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For Director General W D B

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2.3 Five-year Base & Depot (B & D) Spares / Comprehensive Part Lists: Base and Depot spares recommendation shall cover maintenance / overhaul requirements for 5 years including two refits. Recommendations for insurance holding of long lead items shall also be indicated in the offer. Itemized cost of B & D spares and their preservation requirements shall be forwarded with the offer. The make, model number and quantity of each item this is offered has to be clearly indicated in the technical offer. The cost for each item has to be indicated separately. The basis of ranging and scaling of spares has to be clearly indicated with the offer. The list of B & D Spares has to be provided in INCAT (Indian Naval Catalogue of Inventory) compatible format in electronic media for ILMS (Integrated Logistics Management System) after placement of order. The shelf life and storage condition for B&D spares has to be indicated along with the reasons in the technical offer. The List of B&D spares shall be submitted for 04 ships of MDL and 03 ships of GRSE of P17A along with the offer.

2.4 Cable Glands:

The Cable glands and cable lugs are to be supplied along with each ATS in PIP packing stowed inside each ATS. The selection of cable glands and cable lugs are under the scope of OEM. Supplier has to offer/provide additional 10% or minimum 2 nos (whichever is higher) of cable glands and cable lugs (of each type).

Sr. No.	ATS Specification	Cable Pattern	Cable OD
a.	ATS-150A	5013-6847	23.8
b.	ATS-250A	5013-6850	34.7

2.5 Installation Materials: The Nut and bolts required for mounting of the equipment shall be supplied for each ATS. Any other material required for installation shall be specified and provided by the supplier.

2.6 Documentation: Documentation of equipment in hard as well as in soft copies shall be delivered along with main equipment for each ship set as detailed in the TSP Cl.6.

3. System Description:

Supply of Auto Transfer Switch: Power supply on board to the ATS shall be 41V, 3Ph, 3-wire, 50Hz as specified.

Input Supply Voltage & A.C Supply Characteristics: Generator Supply voltage is 415V, 50Hz, 3Phase, 3wire. The on board main AC supply voltage characteristics shall be as follows:

CHARACTERISTIC OF STANDARD MAIN AC POWER SUPPLY (415V) (CONSUMER)			
1	VOLTAGE	NOMINAL VOLTAGE	415V
		LOAD RANGE TOLERANCE	
		a) LINE TO LINE	± 5%
		b) CONSTANT LOAD TOLERANCE	± 1%
		c) SINGLE PHASE OR THREE PHASE	± 6%
		d) TRANSIENTS (EXCLUDING SPIKES)	-10% To +6%
		e) RECOVERY TIME	0.5 SEC
f) FREQUENT TRANSIENTS	-16% To +10%		



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		g) RECOVERY TIME	1 Sec
		h) VOLTAGE SPIKE (PEAK)	2.5 KV
		i) MAXIMUM MODULATION	2%
		j) MAXIMUM UNBALANCE	2%
2	WAVE FORM	INDIVIDUAL HARMONIC TOTAL HARMONIC CONTENT	3% 5%
3	FREQUENCY	NOMINAL FREQUENCY FREQUENCY DEVIATION a) LOAD RANGE TOLERANCE b) CONSTANT LOAD TOLERANCE c) MODULATION d) INFREQUENT TRANSIENTS e) RECOVERY TIME	50 HZ ± 2.5% ± 0.5% 0.25% ± 3.75% 2 Sec

4. Technical Requirements of ATS:

4.1 Purpose: The software intensive electronic systems which are mission critical in nature need Auto changeover switches with a changeover time as small as 20msec. The ATS is functionally same as ACOS with requirement to changeover supply from Normal to Alternate supply and vice versa in case supply fails. The power supply change over time is essential to prevent tripping of system / equipment

4.2 ATS Operation: ATS automatically transfers load from a primary power source to an alternate power source in the event of interruption or abnormal conditions of incoming power supply. The ATS has logic and sensing circuits towards interpretation and switching operations. The built in transient voltage surge suppression system is preferred for SCR switches so as to provide additional protection against damage to the supplied equipment. The load is normally supplied by the primary source, and gets automatically transferred to the alternate source if the voltage of the primary source goes outside permissible range. On restoration of primary source, the supply to load is reverted from alternate to primary.

4.3 ATS Specifications:

ATS should conform to following technical specifications: -

Sr. No.	Parameter	Characteristics/Values
Electrical Specifications		
a.	Input Power Supply	230/ 380/ 415/ 440 VAC, 50/60Hz, 3Ph,3 Wire (or as defined in the PO)
b.	Voltage Tolerance	± 10%
c.	Frequency Tolerance	± 5%
d.	Output Power Supply	Same as Input
e.	Maximum Current	25A/ 50A/ 100A/ 250A/ 300A/ 400A/650A (to be specified in POTS)
f.	Typical Change-over Time	Less than 20mSec (or specified in the PO as recommended by the OEM)

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g.	Retransfer Change Over time	Retransfer to normal supply to be effected within 60 secs post restoration of normal supply without affecting the change over time
h.	Low Voltage Switch Threshold	90 % V \pm 1.5 % of the input voltage
i.	Under Voltage Range	90% \pm 1.5 %
j.	Over Voltage Range	110% \pm 1.5 %
k.	Efficiency at 0.8 pf	> 90%
l.	Overload Capability (Type Test)	(i) 125% for 30 minutes (100-400A) (ii) 125% for 10 minutes (650A & above)
m.	LED Indications (Main Unit)	Normal Supply available Alternate Supply available Load on Normal Supply Load on Alternate Supply Overload Trip Fault
n.	Indications (Sub Units/ Controller Card)	Normal Supply Under voltage Alternate Supply Under voltage Normal Supply Over Voltage Alternate Supply Over Voltage Over Current Fuse Failure
o.	Push buttons/ Selector switches	ATS ON/ OFF Load ON/OFF Mode Selection Switch :Auto / Manual Retransfer to Normal Source Manual Bypass / Emergency Transfer Reset Switch used Fault condition rectified
p.	Test Button	Test button to be provided for checking the functionality of the ATS
Mechanical Specifications		
a.	Enclosure Material	Sheet Steel, CRCA-IS513
b.	Surface Finish	Powder Coated

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c.	Cooling	As per OEM design
d.	Cable Entry	From bottom
e.	Access	(i) Side: 250mm for Maintenance (ii) Top: 100mm for Cables (iii) Front: 600mm Rear: Nil
Environmental Specifications		
a.	Operating Temperature	-10°C to 55°C
b.	Storage Temperature	Up to 55° C
c.	Ambient air Temp	5°C to 45°C
d.	Sea water Temp	2°C to 35°C
e.	Relative Humidity	< 95% non-condensing
f.	Ingress Protection	IP 43 - for ATS > 100 amps IP 55 - for ATS < 100 amps

4.4 Construction:

- a. The limiting dimensions of the ATS are as follows;

Sr. No.	ATS Rating	Limiting Dimension
a.	150A	750x750x360 (LxWxH)
b.	250A	800x800x360 (LxWxH)

- b. The overall weight and size of the ATS shall be kept to the minimum as possible. The ATS is to be designed for vertical mounting in its own enclosure.
- c. Equipment weighing more than 40kg shall be provided with collar eyebolts or suitable lifting lugs.
- d. The ATS shall be supplied with suitable base plate /frame and shock mounts for fitment onboard.
- e. Separate earthing bolts shall be provided on the fixtures to connect ATS to the Ship's Hull.
- f. Tally plate and Diagram plate: Anodized aluminium / brass tally plates as stated below will be supplied along with the equipment as per NES 723;
- Equipment Tally
 - Manufacturer Tally - The manufacturer's nameplate is to be provided with input supply voltage, current, weight, rating, model/type, sr. no., manufacturer's name, date of manufacture and other relevant details.
 - Anodized Metallic circuit diagram plate exhibiting full connection details, component identification and terminal strips for cable connection is to be affixed/ fitted on the rear side of the front door of the ATS.
 - Switching ON/OFF procedure
 - Safety precautions/additional details
 - The tally plate with following format has to be pasted on the front of the ATS;

ATS-150A
415V, 3Ph. 50Hz SUPPLY

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For Director General, MDP of

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**MAZAGON DOCK LTD.**

(A Government of India Undertaking)

Dockyard Road,
Mumbai – 400010.SHIP BUILDING - DESIGN
ELECTRICAL & WEAPON SECTION

TSP NO.

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The details shall be provided during binding drawings preparation.

- g. LFH cables are required to be used for internal wirings as per DEFSTAN02 -526. All cables shall be labelled with relevant markings to identify throughout its length.
- h. Insulation Class 'F' or higher rating
- i. Mounting: The ATS shall be of bulkhead mounting type. The ATS shall be supplied with suitable base plate / frame and shock mounts for fitment onboard ships.
- j. All parts should be fully accessible for maintenance and hassle free operation.
- k. Main incoming cables are to be kept isolated from one another and from output cables.
- l. Design must take into account of the high peak to peak voltages possible between cable terminations and bus bars. Power supplies for relays, electronics, etc. to be derived from both incoming supplies.
- m. For emergency operations, in case of ATS malfunction, a provision has to be made to bypass the ATS manually. In this 'Manual By Pass' condition, it should not be feasible to connect power supply to load using ATS functionality.
- n. Terminals: Bolted type terminal and crimped sockets of electrolytic copper are to be provided for all incoming and outgoing cables. All Terminals shall be easily and safely accessible for connections as well as checking power supply voltage if needed.

4.5 Electrical Protections: Protection against following input and output circuits shall be provided as integral part of the equipment;


- a. Over Current: +125% of the rated current
- b. Under voltage (Normal & Alternate supply) :-15% of rated voltage
- c. Over Voltage (Normal & Alternate supply) : +10% of rated voltage
- d. MOVs to protect against input voltage surges
- e. Semiconductor protection fuses to protect SCRs against short circuit
- f. SCRs with independent gate triggering circuit to facilitate isolation between power and control circuit
- g. Short Circuit: +150% of rated current
- h. Single Phase (for normal and alternate)

4.6 Operational Requirements:**4.6.1 Basic Structure & Operation of ATS:**

The ATS shall consist/cater for following:

- a. A load which is sensitive to variations of utility supply
- b. Two independent sources: Normal & Alternate.
- c. SCR stack which connects the load to the power sources.
- d. Control logic to monitor voltage threshold of both sources, detect voltage in the system (detection process), compare the two sources, and perform a load transfer from one source to the other if needed (transfer process).

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- e. Input source and output line are protected by transient voltage surge suppression varistors
- f. In case of voltage recovery, the load is transferred back to the Preferred Source after the Retransfer delay time.
- g. Three modes of operation and additional settings to meet site-specific requirements.
- h. A dummy load to flow some current always through the conducting SCRs to ensure that the current doesn't fall below holding current in case there is some problem in the load.

4.6.2 Operating Modes: ATS is designed for operation in three modes:

- a. **Auto Mode:** In this mode, if Normal source is unhealthy (unavailable) and Alternate source is healthy, and then load gets automatically transferred to the Alternate source. If Alternate source is also unhealthy, then ATS will get trip and load will not get supply from any of the sources. Once the Normal source restores back to its specified range, the load gets transferred back to the Normal source after the Retransfer Delay Time (adjustable).
- b. **Manual Mode:** In this mode, if the Normal source becomes unhealthy, then the load gets transferred to Alternate source. If the Normal source restores back to its specified range, the load continues to get fed from Alternate source until the "Retransfer to Normal source" push button is not pressed. After pressing the "Retransfer to Normal source" push button, the load gets transferred back to the Normal source.
- c. **Manual Bypass (Emergency Mode):** In this mode, if the ATS itself becomes defective/ non-operational, then the load gets transferred to 'Normal' supply or Alternate through a manual bypass switch based on the selection of the User.

4.6.3 Transfer to be triggered in following conditions:

- a. Under voltage
- b. Over voltage
- c. Manual Change
- d. Single Phasing (Normal & Alternate)

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For Director General W D B

4.6.4 However, transfer is not initiated in the following conditions;

- a. Alternate source unhealthy / not available
- b. Over current

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5. Governing Specifications:

Sr.	Specification	Description
1.	NES-501	General Requirement for the Design of Electro-Technical Equipment
2.	NES 502	Quality nature of finish general requirement for material
3.	NES-507	Requirement for Materials and Finishes for Electro-Technical Equipment
4.	NES-511	Specification for electrical testing of equipment
5.	NES-532	Design Electrical Supply and Distribution System
6.	NES-609	Creepage & clearance distances
7.	NES-723	Tally/Diagram Plates.
8.	DEF-133	For vibration
9.	DGS-251	For painting & finishing
10.	MIL-STD-461E/F	For controlling of EMI/EMC for equipment and cables
11.	JSS-55555	Environmental Test Methods for Electrical & Electronics Equipment
12.	BR-3021	For shock grade NSS II as per BR-3021
13.	DEF STAN 02-530/2:2004	Requirement for main and distribution switchgear
14.	BS 6121/EN 62444-2013	For Single compression Cable Glands of brass as per BS 6121/EN 62444-2013, with IP67/68 protection
15.	EED-S-048 & JSS-0251-01	Preparation of Documents and Drawings
16.	IEC 60947-2	Low Voltage switchgear and control equipment
17.	EED-50-02	Moulded case circuit breaker (MCCB)
18.	EED-50-18	Distribution - 4 wire power panel scheme

Note: The summary of the applicable standards/specifications are mentioned at the Annexure, SOTR for Auto Transfer Switch EED-50-78.

6. Drawings and Documentation:

6.1 Provision of adequate documentation for effective operation and maintenance is an important aspect of the contract. DME 452 should guide the preparation of the hard copies of document. The complete set of documents (manuals and drawings) shall be supplied. All drawings and documents shall contain dimensions and other parameters in metric units. The scope of supply of Documentation for each ship set is stipulated in Deliverables of this specification.

a. The technical manuals shall be produced in accordance with MIL-M-7298C or equivalent and shall be provided in both hardcopy form and on magnetic media (CD-ROM). The Comprehensive Parts List of the equipment shall be supplied in magnetic media also as per ILMS format of IN. The draft document is to be forwarded to Naval Headquarters for approval. Comments of NHQ are to be incorporated in the documents.

b. All associated documentation, drawing and equipment list applicable shall be in English language. All drawings and documents shall contain dimensions and

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other parameters in metric units (SI Units). The drawing and documentation shall be complete to permit installation, operation and testing of equipment on board. These shall cover all sub-assemblies and accessories of the equipment. The technical manuals and drawings including the entire final as built drawings & documents with its index shall be provided in both hardcopies as well as on a CD-ROM.

- c. Drawings/documents shall be prepared by using following Software.
- Documents - Latest version of MS Word 2010.
 - Orthographic Drawings & AutoCAD R14 or its 3D Model of Equipment in (.stp) format.

d. The technical documentation that the Supplier shall submit shall clearly specify the operation procedures. All maintenance till the end of service life, including procedures to carry out such maintenance shall be clearly specified. All mandatory replacement parts required for maintenance shall be indicated. The documents shall cover the aspects of operation and maintenance, catering from daily routines up to major overhaul, replacement of major assemblies/components and 'Fault analysis'. Test and trial documentation covering installation checks, set to work and load trials as applicable shall be provided by the supplier.

e. The Documentation for Equipment / OBS / B & D Spares including Comprehensive Part List (CPL) & Part Identification List (PIL) shall be provided in INCAT (Indian Naval Catalogue of Inventory) databank compatible format in electronic media, for Integrated Logistics Management System (ILMS) / Ship's Logistics Management System (SLMS) of NHQ of MoD (N) for the management of spares as detailed at APPENDIX - J.

6.2 Drawings are classified as:

a. Tender Drawings: Tender drawings may be less detailed than approval drawings. They are to enable tender to be assessed and compared for like features and to check that the equipment meets the technical specification, as far as possible. Tender drawings are to be submitted along with the technical offer.

b. Equipment Drawings and Quality assurance Plan (QAP): Equipment drawings and QAP are required after the tender stage to enlarge on the bare essentials of the tender drawings. Equipment drawings are intended to provide all the information needed for manufacturing & installation purposes. The Equipment Drawings and QAP shall be regarded as preliminary with alphabetical issue status as A, B etc. up to the date when approval is given by the Design Authority. The drawings and QAP become final approved drawings and approved QAP when noted as approved at Issue 0 quoting the letter of approval. QAP is required to be submitted to DQA (N)/local QA for scrutiny/approval along with a copy of the approved drawings. Draft QAP may be submitted to local QA for scrutiny and preliminary comments during the drawings approval stage.

6.3 Drawings for Approval: Five sets of the following drawings i.e. FOUR sets to NHQ (MoD) (Navy)/WDB and ONE set to MDL are to be submitted for comments and approval after placement of order. The time frame for submission of these

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For Director General W D B

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drawings for approval shall be within FOUR weeks from date of order. Essential requirements for preparation of equipment drawings may also be obtained from DGQA website. The below list is based on minimum mandatory requirement. However, Supplier is to propose the list of drawings in their technical bid, which shall be discussed and finalised during TNC meeting.

a. General Arrangement drawing indicating, overall dimensions, fixing details, mounting arrangement, seating drg., weight, CGs of the item etc. material specifications, instrumentation, scope of supply and other relevant technical parameter/requirement as per TSP.

b. Circuit diagrams, Cable schedule, Cable interconnection diagram, and complete schematic diagram power supplies.

c. List of Tally Plates

d. Material list indicating Part No., Qty., Mfrs list, material used etc.

e. Detailed description/functionality and operating sequences of ~~Auto Change Over Switch (ATS)~~. Auto transfer Switch (ATS)

f. Format/tables for listing On Board Spares, Base & Depot spares, Documentation, Installation spares to be forwarded with approval drawings.

g. Foot print drawing of the equipment and all other relevant items showing technical details and location of S & V Mounts.

h. Any other drawings required for the installation of the equipment.

i. The general guidelines for preparation of QAP to be as per the latest policy and guidelines of DQA(N).

j. QAP for all equipment duly showing details of stage inspection, hold points, relevant specifications, etc.

k. Cable schedule and connection details as per the MDL format attached with TSP at Appendix – F

l. Complete Bill of Material with OEMs PIL/CPIL.

m. Protection/ co-ordination study and fault level calculations documents for ATS.

Note: One set of drawings is also to be submitted on CD ROM in Autocad format to MDL for scrutiny and comments.

n. NHQ of MoD (N)/MDL shall approve the Binding Drawings and QAP within 4 weeks of receipt of the same, duly mentioning the comments to be incorporated in the final drawings and QAP, if any. The amended drawings and QAP duly incorporating MDL/IN comments shall be re-submitted within two weeks of receipt of the same by the supplier to MDL.

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अनुमोदित वृत्त महासिनेडस लक्ष्मण डी पी
For Director General W D B**6.4 Documentation:**

- Drawing and Document List
- General information on the equipment
- Operating Instructions.
- Technical Specifications including component wise material specification
- Overall weight and weights of assemblies and sub-assemblies.
- List of recommended On Board Spares.
- List of recommended B & D Spares.
- Scope / supply of Consumables with Indian, International or NATO equivalents, along with chemical composition and physical properties.
- Preservation schedule, procedures and other requirements for equipment and Shock Mount, Storage requirement.

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- j) Maintenance requirements.
- k) Instrumentation list & diagram.
- l) Factory test reports (FATs), material certification & Calibration Certificates of the instruments fitted. Periodicity of calibration of each instrument shall be specified.
- m) Torque values for bolts which are to be tightened for installation of equipment.
- n) Torque values for all type of incoming as well as outgoing cable core lugs/ connectors.
- o) Part identification List, indicating Part No., Quantity, Makers name, materials, etc.
- p) Installation, alignment and setting to work procedures (stating pre-requisite conditions, if any).
- q) List of tally plates.
- r) Drawings - reduced size
- s) Heat Dissipation.
- t) Shock calculations indicating shock capabilities as per Dynamic Design Analysis method.
- u) Complete details of SV mounts and selection calculations.
- v) Preservation requirements for OBS and B & D Spares.
- w) Log Books/Forms/Documents for entering installation inspection/alignment values or other important data, if any.
- x) Documents for STW & HATS
- y) Documents in CD-ROM.
- z) Refer technical documents with trouble shooting flow charts.

7. Quality Assurance:

7.1 Quality assurance: The detail design, material and workmanship shall be in accordance with the best world-wide recognised marine practices, to ensure reliability, durability and ease of maintenance which comply with the ship's requirements. The design shall be such that weight and size are reduced to the minimum practicable, ensuring no compromise in reliability or significant design criteria. A quality assurance program is to be specified by the manufacturer in his offer.

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7.2 Quality Assurance Programmeअनुमोदित कूल गजनिदेशक इश्यू डी डी
For Director General W.D.S

a. The equipment manufacturer shall submit quality inspection and control plan, which meets the intent of ISO 9001 before commencing production.

b. Details of test equipment, test methods, preliminary qualification tests, etc. are to be indicated. Shop floor tests prior to dispatch by supplier should be conducted.

c. The supplier shall provide the test procedures, standards achieved through parameters, designed upper and lower limits as applicable and specifications of instruments/test equipment/test bed used, for the scrutiny by Indian side. If considered necessary by the Indian side, all tests would be carried

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out at OEM's premises in the presence of Indian side representatives and certificate of approval as per standards would need to be provided by the supplier.

d. Amendment to the Quality Inspection and control plan proposed, if any, shall be formalised post order after approval from DQA (N).

e. Quality Improvement Programme: The supplier should indicate major defects as well as user complaints for the equipment fitted on similar class of ships and the corrective action taken against them. The supplier should also indicate the major improvements carried out in the latest version compared to the previous version.

8. Testing and Trials:

8.1 Firms have to conduct the type testing and EMI/EMC tests on the Auto Transfer Switch if the same are not tested earlier. If the ATS are type tested earlier, firm has to provide Environmental test report as per JS5555-2012 and EMI/EMC test plan approved by NEC (Mumbai) with the Tender Technical documents.

8.2 Type testing:

One ATS of each type shall be type tested, if not tested earlier.

a. Keeping in mind the delivery schedule, the supplier has to plan type testing of ATS and certificates of the same are to be submitted for final acceptance of IN and MDL.

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For Director General W D B

b. If Type tests have been conducted earlier, the test reports are to be submitted along with the technical offer. The acceptance of tests reports will be at the discretion of Professional Directorate and DQA (N). However, if the earlier conducted type tests are not found acceptable, all the required type tests as stipulated in TSP are to be conducted without any extra time and cost. Valid/relevant type test certificates are to be made available during inspection of equipment

c. Test (Applicable to only equipment / parts / systems etc. which are newly introduced and not proven previously). The first of each type of equipment is to be type tested as per the specifications mentioned below.

d. The type test certificates shall essentially consist of the ambient conditions of the test, results/parameters achieved versus design values etc. All costs, if any, towards type testing are to be included in the equipment cost and no additional costing will be considered for type testing. All type testing is to be completed prior to FATs of the equipment for first ship set.

8.3 Electrical Tests: The following tests are to be carried out as specified in spec. NES 511

- Withstand voltage test (Clause 0501 to 0511)
- Insulation resistance test (Clause 0519 to 0523)
- Temperature rise test
- Operation on protective devices

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e. Earth Bond test

8.4 The Acceptance Test Procedure (ATP) shall include the above tests and to be forwarded along with the QAP for approval.

8.5 Environmental test: A list of limited environmental tests in accordance with **JSS 55555:20-12 (Ver.3.0)** (which do not drive the equipment to yellow banding) required to be conducted as given below.

Sr. no	Test	Specification	Test Condition/Severity	Remarks
1.	Vibration	Test 28	ATS installed in major warship (Main Region) / Submarines 5 - 33 Hz +/-0.125mm displacement for one hour at each resonance frequency	The equipment should be in switched 'ON' condition during the test. The equipment would be mounted on the vibration table by its normal means of attachment on ship
2.	High Temperature	Test 17	Procedure 6 Test condition 'K' 55 +/-3degC Storage 70+/-3DegC Duration: 16 Hrs.	Performance check during last hour
3.	Damp Heat	Test 10	Operating Temp : 40%+/-2 RH - 93+/-5% Total Duration- 16 Hrs	Unpacked and switched 'OFF' 15+1/2hrs Unpacked and switched 'ON' 1/2hrs
4.	Low Temperature	Test 20	Procedure 4 Test Condition 'H' Operation : 55+/-3degC Storage : 70+/-3degC Duration- 16 Hrs	Unpacked and switched 'OFF' 15+1/2hrs Unpacked and switched 'ON' 1/2hrs
5.	Drip Proof	Test 11 अनुमोदित / Approved	Vertical water drip from 1m height for 15min in 'ON' condition	
6.	Tropical Exposure	अनुमोदित केले महानिदेशक डब्ल्यू डी बी For Director General W D B Test 27	Test condition A : 7 cycles temperature 20+/- 5degC to 35+/- 2degC RH 95% Duration:24hrs	Unpacked and switched 'OFF' condition
7.	Mould Growth	Test 21	30 +/-5DegC RH >90% Duration:28 days	To be conducted on representative samples



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8.	Corrosion (Salt)	Test 9	Procedure 2 Temperature:35 +/-2degC RH:90 to 95 %	Unpacked and switched 'OFF' condition To be conducted on representative samples
9.	Bump	Test 5	1000- +/-10 bumps 40 G, 6 m/sec	
10	Shock/Impact	Test 24	As per NSS Grade A 120g, 8ms(vertical) 70g, 8ms(Lateral)	
11	EMI/EMC	MIL-STD-461 E/F Tests : CE101, CE102, CS101, CS114, CS115, CS116 RE101,RE102, RS101, RS103	Equipment/System should comply with MIL- STD-461 E/F and OEM would be required to formulate an EMI/EMC Acceptance plan (EMI-AP) post placement of order for approval of NHQ MoD (N)/NEC (Mbi). The EMI/EMC testing would be done as per test plan vetted and stamped by NEC (Mbi).	

8.6 EMI/EMC Tests: The EMI/EMC Tests listed above shall be carried out. However, the test plan approved by NEC Mumbai shall be considered as the basis for carrying out EMI/EMC tests.

8.7 Factory Acceptance Trials (FATs):

a. Supplier is to offer FAT of equipment to the appointed IN/MDL agency at firm's premises. During the FAT, equipment performance checks including physical checks will be carried out. FAT documents shall include FAT schedule, procedure, pre-requisites, data to be recorded, time interval for data recording, formats for data recording, safety and precautions to be observed during trials, estimated time of the trials and all other relevant data/information required for the successful completion of the trials. FATs documents are to be sent to NHQ MoD(N) for approval at least FOUR months prior to conduct of FATs. Copy of the same is also to be given to MDL for comments.

b. GRAQs (General Requirement of Acceptance of Quality) – GRAQ schedule is required for on board trials of the equipment. The trials of the equipment will be carried out on board the ship in presence of IN trial agency. Supplier is to assist to MDL in developing the GRAQ schedule document for undertaking this trial.

c. Trials and Commissioning: Supplier shall assist in Installation, STW (Setting To Work)/HATs, testing, tuning & commissioning of the equipment on board the ship.

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9. Inspection Authority:

- 9.1 For design: NHQ MOD(Navy)/Warship Design Bureau (WDB) of Indian Navy
- 9.2 For drawing approval: NHQ MOD Navy, Warship Design Bureau (WDB) of Indian Navy.
- 9.3 For QC and Inspection: DQA (N) of IN
- 9.4 For construction: Warship Overseeing Team (WOT) of Indian Navy at Mazagon Dock Limited
- 9.5 For ship trials: Trial agency of IN
- 9.6 Receipt Inspection: Receipt inspection for all equipment shall be carried out at MDL/WOT(Mbi) and GRSE/WOT(Kol) in the presence of OEM rep to verify completeness of the scope of supply and intactness of the supplied equipment. Defective / damaged parts and deficiency, if any, in supply shall be made good by OEM free of cost. OEM shall be intimated the date of receipt inspection.
- 9.7 Design Standards: Naval Engineering Standards (NES) of the British Royal Navy as general guidance, or equivalent Naval standard for combatant vessels.
- 9.8 Installation: All information related to installation of equipment/item on board the ship including Seat machining requirements, required torque values for securing foundation bolts etc., shall be provided by the supplier along with the Approval/Binding drawings.

10. Warranty:

- 10.1 Warranty Period: All equipment with associated controls/instrumentation shall be guaranteed for stipulated performance for 48 months from the date of supply of the equipment or 12 months from the commissioning of the ship, whichever is earlier.
- 10.2 The equipment supplied shall be warranted from defects, Supplier and performance for the said period and cover all the defects arising from malfunctioning through design faults, inappropriate material, bad production and non-conformance to specifications. Any expense on account of repair/supply of spares against guarantee defects shall be borne by the supplier. If any defective part to be taken back to OEM's factory (i.e. importing and re exporting from Country of origin), for service purpose the liability of the same shall be borne by the supplier.
- 10.3 Extension of Warranty: Supplier shall indicate the rate for extended warranty period 5 years, in case the warranty period as detailed above expires.

11. Technical Assistance/Services of Engineers:

- 11.1 The supplier is required to provide the necessary representative(s) to assist in carrying out inspection on the equipment, during the following phases:

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1. Setting to work and Harbour Acceptance Trials
2. Assistance in operation during guarantee period

a. Supervision/services of engineers should take care up to satisfactory completion of trials and handing-over of the system to ship staff and guarantee period.

b. The supplier shall estimate the requirement of man days of their qualified supervisors / specialists and their stay at shipyard / on Board the Ship to assist shipyard in all activities listed above, based on their experience. This requirement shall be elaborated in the technical offer.

c. The supplier shall indicate total cost (in the price bid) for executing all technical assistance activities, in the offer. Activity-wise cost break up shall also be given in the price bid, to facilitate the payment on satisfactory completion of the activity. No extra man days/payments, on this account, shall be admissible or considered on completion of the total technical assistance.

d. If additional man days are required for carrying out the activities beyond the scope of specified activities, the work shall be taken up only after obtaining the written approval/consent from MDL.

e. Shipyard to progress the ship's construction activities, simultaneously on ships of the same Class/Project or on ships of different projects. Hence, there shall be every likely hood of clash of requirement of technical assistance. In such eventuality, the supplier shall depute their dedicated separate/independent team of supervisors/specialists for required technical assistance, on the required ships for avoidance of delay on one ship due to similar work requirement. Rotation of supervisors/specialist amongst the various ships/projects shall be avoided.

12. Information to be supplied while tendering;

a. A brief specification of the equipment offered including a statement showing any way in which the equipment is not expected to meet the requirement.

b. Drawing showing Overall dimension, fixing arrangement & estimated weight of the equipment.

c. Wiring diagram of equipment, the cable details etc.

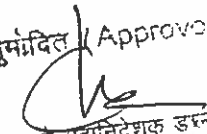
d. Confirmation is required that all tests indicated in clause 7 of the TSP can be undertaken at the manufactures own works, otherwise any alternate arrangement proposed are to be stated.

e. Maintenance space is required for the equipment.

f. OBS list and B&D list.

13. Miscellaneous Requirements:**13.1 Components, Material and Finish:**

- a. All components used for the ATS shall be approved by *IN* or any other agency appointed by *IN* for use on board *IN* ship and shall be interchangeable with similar equipment.

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For Director General W/D B

**MAZAGON DOCK LTD.**

(A Government of India Undertaking)
Dockyard Road,
Mumbai - 400010.

SHIP BUILDING - DESIGN
ELECTRICAL & WEAPON SECTION

TSP NO.

DR/P17A/5317

REV. NO.

B

PROJECT 17A
(MDL YARD NO.12651/652/653/654)
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- b. The quality of material and nature of finish shall conform to specification NES-507. Standard specification and grade of the material of each component used is to be indicated in the binding drawing.
- c. All the switchgear and fuses shall have adequate capacity to safely make/break the peak short circuit current.

13.2 Reliability: Reliability shall be achieved by designing equipment, which is robust and simple. The equipment shall be designed for minimum maintenance and for ease of such essential maintenance as is required, incorporating facilities to allow ease of visual inspection so that the internal components are not disturbed.

13.3 Maintenance Policy: The planned maintenance shall be scheduled for a minimum of 24 months between refits each refit of approximately 3 months duration, including a dry-docking of 3 weeks. The system should be designed such that minimum personnel intervention required during the entire operation. The routine maintenance and periodic checks for proper operation of equipment needs to be clearly specified and supplied along with the equipment. The maintenance technicians should be able to quickly isolate the fault and repair the equipment by module replacement. Meters/indicating lamps are to be provided to display system operation status.

13.4 Product Support: The supplier shall confirm that product support for next 25 years for the equipment offered by them would be guaranteed. After placement of order if part numbers of any items/assembly gets changed supplier shall immediately inform MDL, Indian Navy and Ship so that any future requirement shall refer the latest part numbers.

13.5 Standards: Certificates shall support the standards where standard components are used.

13.6 Painting: The Painting shall conform to specification shade 632 of IS:5 (powder coating) approved for Marine application. The enclosure finish color shall be admiralty Grey, semi-gloss. All painted items shall be cleaned, degreased and painted with two coats of anticorrosive Marine Paint & two finish coats. Powder coating finish meeting required colour code as mentioned in the specification may also be acceptable.

13.7 Preservation / Packing / Conditioning:

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For Director General W D B

- a. Initial preservation/packing shall be carried out for a period of 24 months and made suitable for tropical conditions and protected against high humidity.
- b. Preservation requirement, procedures and schedule for main equipment, OBS and B & D Spares are to be indicated in the offer.
- c. The relevant test certificates of all the items used for packing/preservation shall be submitted during inspection.

13.8 Instruction Plates: Instruction plates of anodised aluminium alloy material describing complete procedure for operating the equipment and precautions in brief shall be prominently displayed at the appropriate place of equipment.

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13.9 Lifting Arrangement: All components weighing more than 40 kg shall be provided with eyebolts. Any components requiring special handling shall be so marked and shall be accompanied by the necessary handling instructions. One set of lifting gear is to be supplied for the complete project of 4 ships.

13.10 Packing & Shipping: All equipment shall be adequately packed and protected with supports to ensure adequate protection during all methods of transportation. Each unit within a package/container shall be clearly marked in English for identification. The container shall clearly indicate the commodity description with caution marks, weight, size, etc. The instrumentation and meters etc. which are likely to be damaged during transit and installation are to be removed from the equipment and shall be supplied in a separate suitable box/packing. Following items shall be packed in separate containers/boxes with proper list of their contents in English for their easy identification and traceability:

- Deliverables related to Equipment (to be marked in green colour).
- Deliverables related to Installation material and Tools related to Equipment (to be marked in green colour).
- On Board Spares and Tools (to be marked in red colour)
- Base & Depot Spares.
- Documentation (to be marked in blue colour).

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For Director General W D B

13.11 The list of actual deliverables and their part numbers against each of the above serials shall be forwarded to MDL in soft copy (MS Excel format) within one week after finalization of PNC. This is required to detail them in the purchase order.

13.12 A separate document giving complete details and instructions for storage, preservation, handling and transportation after delivery shall be supplied. The supplier shall indicate the delivery schedule, port of embarkation, transport, packing, preservation, insurance, etc.

13.13 Price: Quoted price shall include all deliverables inclusive of the services of Engineers as required for STW and HATs. The price list for B & D Spares shall be submitted separately. Break-up of price for various components or supply / services shall be indicated by the supplier.

13.14 Cost Break-up: While forwarding cost of the Equipment, supplier shall ensure that the price quoted is not on the lump sum basis and should indicate a cost break-up for following

- Price per ship set of the ATS based on four ships.
- Integration, set-to-work and commissioning of the equipment
- Recommended on-board spares
- Five year Base and depot spares indicating cost of each component
- Documentation

13.15 Reference List: A reference list of shipboard installations carried out earlier in other Navy for the same / similar type of equipment shall be indicated in the offer.

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13.16 Indigenisation / Local Support: Applicable only for Indigenous equipment with import content.

13.17 The supplier shall indicate if the equipment is original OEM Supply or manufactured in India under licence (specifying the import component). The Supplier shall engage into a co-operation with a reputed Supplier of similar equipment in India and accordingly plan for a progressive indigenisation.

13.18 In this respect, the Equipment Supplier shall confirm that they shall be able to authorise priority work at their works and provide the necessary local support as required to meet the ship construction and trials programme and to provide the necessary after sale support to the NHQ of MoD (N). Future plans for indigenous productions of the equipment, associated control/monitoring devices and transfer of technology shall be indicated in the proposal for consideration of NHQ of MoD (N).

13.19 If manufactured under licence under collaboration in India, the Supplier shall indicate the following.

- Collaboration agreement already signed or not.
- Name and address of Indian firm and details of registration licence already registered or the future plans and date by which it shall be registered.
- The extent of indigenous manufacture of components, transfer of technology and collaboration for supply and support of equipment including those supplied directly by the supplier.
- The yearly production capacity of the Indian licences.

13.20 Security of Information: The information contained in this TSP is RESTRICTED in nature. The same shall not to be divulged to any other firm/third party without the prior permission of NHQ of MoD (N). Adequate measures shall be taken to ensure safe custody of this document.

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APPENDIX-01**FORMAT FOR DEVIATION LIST**

The Bidder should fill in this form for the deviations of his bid from the requirements as stated in the Material Requisition. If no deviation is required Bidder should be fill in "NIL" in the 'Deviation column. Bidder shall sign/date and affix his company seal.

SR. No.	DOCUMENT No. CLAUSE No.	REQUIREMENT	DEVIATION WITH REASONS	NSM / MDL REACTIONS

BIDDER'S COMPANY SEAL

BIDDER'S SIGNATURE & DATE

A-ACCEPTED
ATTACHED SHEET)

N-NOT ACCEPTED

C-CONDITIONAL ACCEPTANCE (SEE

MDL'S / NSM COMMENT ON DEVIATION.

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For Director General W D B

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APPENDIX-02**FORMAT FOR CERTIFICATE OF CONFORMITY**

(To be filled in by the **SUPPLIER** & submitted as part of the Offer)

M/s. _____

With reference to the subject **Requisition** received along with the MDL Inquiry and our
QUOTATION No. _____ Dated _____

_____ we hereby confirm / clarify the following:

1. **REGISTRATION WITH DQA (WP) / DQA (N) / MDL:**

We are NOT Registered / already REGISTERED (*) with _____ for
manufacture and supply of following items

(a) _____

(b) _____

2. **PAST PERFORMANCE:**

We have NOT Supplied / have SUPPLIED (*) identical / similar (*) ITEM to MDL in
the past. The relevant Order references are given below:

(a) _____

(b) _____

3. **REQUISITION / DRAWINGS / SPECIFICATIONS / SOR :**

We ARE NOT / ARE (*) fully aware of the relevant Drawings / Specifications / SOR
etc. indicated in the REQUISITION and the related Documents.

4. **DEVIATION:**

The OFFER is fully in compliance with the Requisition WITHOUT any deviation /
EXCEPT for the deviations listed in the attached format (*).

5. **BINDING DATA:**

OUR Drawings with necessary BINDING DATA such as Overall Dimensions,
SEATING Details / Bolting Plan, Connection / Interface Details, Face-to-Face
Dimensions is ENCLOSED / NOT Enclosed (*) with the offer. We have noted that
any change in Binding Data shall require specific approval from MDL/NSM.

6. **DOCUMENTS / DATA:**

The following Technical Documents / DATA SHEETS are enclosed herewith

(a) (To be specified if applicable)

For M/s. _____

Signature: _____

Date: _____

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Stamp: _____

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For Director General W O B

(*) Strike out which is NOT APPLICABLE.



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APPENDIX-03

FORMAT FOR WEIGHT CONTROL DATA SHEET

EQUIPMENT DESCRIPTION		EQUIPMENT NO.	
COMPARTMENT		LOCATION	

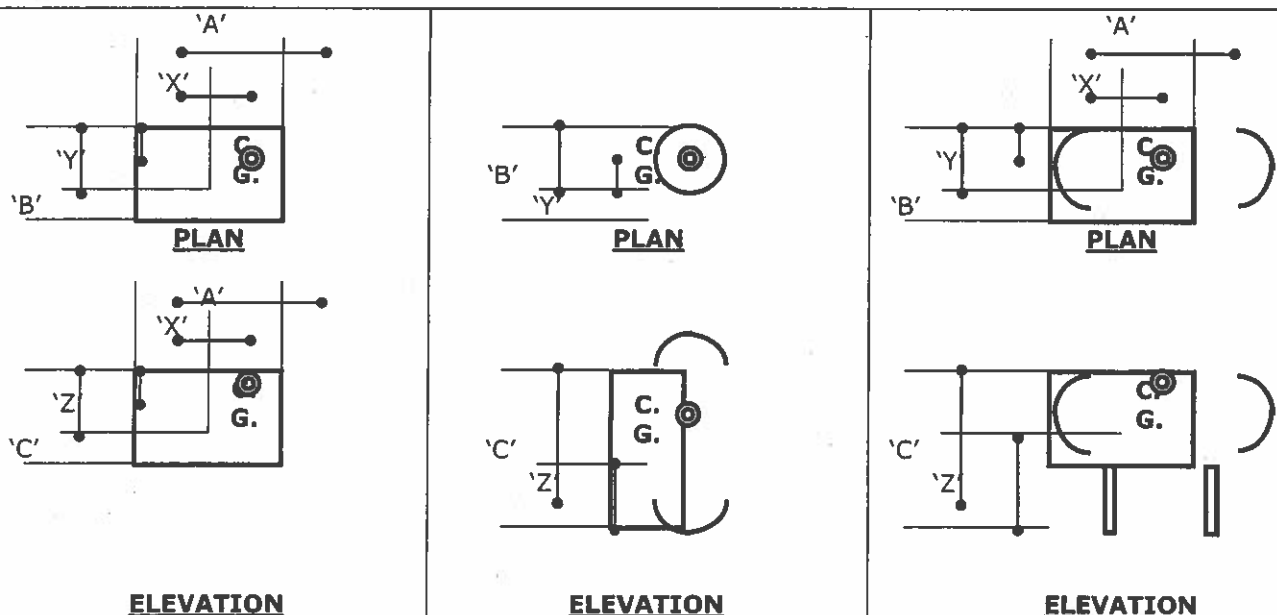
SWBD :

TOLERANCE CODE
 PRELIMINARY EST.
 DESIGN EST.
 M.T.O. (CALC)
 WEIGHT D
 TOLERANCE ± %

1. WEIGHT (Kg.)

(a)	DRY	Kg ±	%
(b)	FLUID	Kg ±	%
€	OPERATING	Kg ±	%
(d)	TEST	Kg ±	%
€	TOTAL	Kg ±	%

2. EQUIPMENT DIMENSIONAL DATA (mm).



OVERALL SIZE		CENTRE OF GRAVITY	
'A'		'X'	
'B'		'Y'	
'C'		'Z'	

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 For Director General W & B

NOTE:

- ALL OFFERS MUST INCLUDE THIS DATA SHEET DULY FILLED IN BY THE SUPPLIER (SIGNED, DATED & SEAL AFFIXED).
- ALL FINISHED ITEMS SHALL BE WEIGHED & A CERTIFICATE SHALL BE PROVIDED AS PER ATTACHED SHEET.
- SEPARATE SHEETS TO BE COMPLETED FOR EACH INSTALLED EQUIPMENT.
- ORIGIN OF 'X', 'Y' AND 'Z' TO BE INDICATED.

SUPPLIER'S SEAL

SUPPLIER'S SIGNATURE & DATE



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APPENDIX-04

FORMAT FOR WEIGHT CERTIFICATE

EQUIPMENT DESCRIPTION:

EQUIPMENT NO. :

The form has to be completed by Supplier & to be supplied along with the equipment.

**SUPPLIER'S
NAME**

**Ref. Drg.
No.**

ADDRESS

Part No.

TELEPHONE NO.

ORDER NO.

EQPT. NO.

METHOD OF WEIGHING:

Supplier to prescribe Method & Equipment Used:

**DATE OF LAST
CALIBRATION**

**SPECIFIED ACCURACY
REQUIREMENT**

NOTE :-

RESULT OF WEIGHING TOTAL EQUIPMENT DRY WEIGHT

(Excluding packing, temporary protection etc.)

ALLOCATED WEIGHT

(Weight estimate agreed by purchaser
and supplier based on order specs).

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For Director General W D B

REASONS FOR VARIATION BETWEEN ALLOCATED WEIGHT AND CERTIFIED WEIGHT:

WEIGHING ADDRESS :

WITNESSED BY

FOR SUPPLIER

FOR PURCHASER

Representative

Representative

Date :

Signature / Date & Seal

Signature/Date & Seal

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APPENDIX-05**ILMS FORMAT FOR CPL/PIL**

S/no	Fieldname	FieldType	Fieldlength	Data Required
1	S/no	Numeric	10	serial no
2	Yardno	Character	5	MDL YardNo
3	Orderno	Character	8	MDL Equipment Order No
4	Orderdate	Date	8	MDL Equipment Order Date
5	Equipitemcode	Character	32	ILMS itemcode for Equipment('E'vendorcode'- 'modelno')
6	Equipdesc	Character	60	Description of Equipment
7	Yearobsolesc	Character	4	Year when the Equipment is likely to be obsolete
8	hoursEstlife	Numeric	10	Limitation of Estimated Running Hours
9	hoursMTBF	Numeric	10	Mean Time Between Failure
10	hoursMTBR	Numeric	10	Mean Time Between Refit
11	OEM Name	Character	50	Name of OEM.
12	Vendorname	Character	50	Name of vendor
13	Address1	Character	30	Address of vendor
14	Address2	Character	30	Address of vendor
15	City	Character	15	City of vendor
16	State	Character	15	Name of the state in which located
17	Pincode	Character	6	Pincode of vendor
18	Phone	Character	15	Phone Number of vendor with ISD/NSD code
19	Fax	Character	15	Telefax of vendor with ISD/NSD code
20	email	Character	30	e-mail of vendor
21	Countrycode	Character	3	Countrycode of vendor (Ind,USA,UK etc..)
22	Contactperson	Character	30	Name of the Contact Person
23	Dealer	Character	50	Name of OEM's Dealer, if available
24	Certification No	Character	30	ISO 9000,14000 etc..
25	Itemcode	Character	32	ILMS item code ('E'vendorcode'-itempartno')
26	Itemdescr	Character	60	Description of item
27	Itemdenom	Character	3	Denomination
28	Total Qty	Numeric	10	Qty used in Equipment
29	QtyBDmanuf	Numeric	10	Recommended B&D spare Qty
30	QtyOBmanuf	Numeric	10	Recommended OBS Qty
31	VEDcategory	Character	1	Vital, Essential, Desirable
32	Unit price	Numeric	12	Unit Price
33	Currencycode	Character	3	Rs/USD etc.

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For Director General W D

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ILMS FORMAT FOR CPL/PIL

1	2	3	4	5	6
Sino	Yardno	Orderno	Orderdate	EquipItemcode	Equipdesc

7	8	9	10	11	12
year obsolesce	hour est life	hoursMTBF	hoursMTBR	OEMname	Vendorname

13	14	15	16	17	18
Address1	Address2	City	State	Pincode	Phone1

19	20	21	22	23	24
Fax	email	Countrycode	Contact person	Dealer	Certification

25	26	27	28	29	30
Itemcode	Itemdescr	Itemdenom	TotalQty	QtyBDmanuf	QtyOBmanuf

31	32	33
VEDcategory	Unit price	Currencycode

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APPENDIX-06

FORMAT FOR COMPLIANCE MATRIX

The Bidder should fill in this form for the compliance matrix of his bid from the requirements as stated in the TSP. Bidder shall sign/date and affix his company seal.

TSP Para No	Complied / Not Complied	Offer Reference (Page & Para No.)	Remarks, if any

BIDDER'S COMPANY SEAL

BIDDER'S SIGNATURE & DATE

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For Director General WDB

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APPENDIX-07 (1 of 2)**GENERAL REQUIREMENTS FOR ELECTRICAL EQUIPMENTS**

1. The equipment / Item are generally required to withstand following marine conditions:
Ambient temperature 0 to 50 °C for Machinery Space and 45 °C at other places.
Humidity 100 % at 35 °C, Sea water temperature 35 °C, Roll +/- 30 ° P & S, pitch 0 +/- 15 °, list 20°.
2. All items must strictly conform to relevant drawings / specifications mentioned in the requisition.
3. General arrangement drawing giving overall dimensions and approximate weight of the unit and center of Gravity is to be supplied along with the offer, for non-patternised item.
4. The manufacture of the items is to be started only on approval of the drawings. A set of approved production drawings is to be made available to MDL for dimensions, fixing details etc.
5. Wherever a pilot sample is required to be manufactured, the bulk production is to start only after approval of the sample by inspecting Agency / MDL-GRSE. No Component will be supplied by MDL-GRSE.
6. The items are to be of robust construction so as to withstand adverse marine conditions. Similar parts are to be interchangeable. The castings are to be free from blowholes, sharp edges to be rounded off, the threads are to be even and sharp. The switches, lamps, fuses, internal wires etc. used in the equipment are to be either patternised or type approved by DQA / Classification Societies, as applicable. The details regarding this can be obtained from respective agencies. Fuses are to be clearly marked.
 - a. The holes for mounting the equipment should be on lugs outside the casing of the equipment.
 - b. The equipment is to be suitable for bulkhead mounting.
 - c. Suitable earthing arrangement is to be provided on the equipment.
 - d. Lifting arrangement is to be provided for ATS above 40kg.
7. For Ship's cables, the entries are to be through glands, unless otherwise stated. The glands are to be as per specification BS 6121/EN 62444-2013 (For Naval Ships) / Standard Siemen's gland for Merchant Ships. The gland nut and washers are to be left un-drilled, unless specified.
8. For connection of the ship's cables the terminals are to be easily accessible. Crimped sockets and clamp type terminals are to be provided for incoming & outgoing cable connection. An adequate space should be maintained between terminals, terminal block, the casing of the equipment and the cable entry glands.
 - a. Internal wiring in the panels to be of Low Fire Hazard cables.
 - b. The installation material, viz. free end connectors, cable crimps, special tools if any, mounts etc. to complete installation is to be supplied by you along with the equipment.

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APPENDIX-07 (2 of 2)**GENERAL REQUIREMENTS FOR ELECTRICAL EQUIPMENTS**

9. The Part No. / Pattern No. of each item is to be prominently and indelibly cast / embossed / tallied.
10. The following engraved tallies of brass / anodized aluminum are to be riveted on each equipment:
 - a. Manufacture's tally as per clause no. 4.4.6
 - b. Functional tallies for switches, lamps, push button etc.
 - c. Danger tallies for equipment operating on 220V and above, the tally should have white letter on red background.
 - d. Where applicable 'MODIFICATION STATE' of the equipment tally.
 - e. Special tallies to be provided as applicable viz. Circuit diagram tallies, operating instructions motor direction of rotation etc.
11. The item is to be painted with admiralty ship's gray paint as per approved painting specification/procedure.
12. Minor modifications required by Owner/Inspecting Agencies / MDL are to be incorporated.
13. For any deviations, however minor, prior approval is to be obtained from DQA (Navy) / MDL Deviations once granted will not be necessarily applicable for repeat manufacture.
14. Net weight of each item is to be recorded in the presence of the inspector and a certificate to that effect is to be submitted along with supplies.

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For Director: General W D B



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(A Government of India Undertaking)
Dockyard Road,
Mumbai - 400010.

SHIP BUILDING - DESIGN
ELECTRICAL & WEAPON SECTION

TSP NO.

DR/P17A/5317

REV. NO.

B

PROJECT 17A
(MDL YARD NO.12651/652/653/654)
(GRSE YARD NO. 3022/3023/3024)

DATE

22 NOV 2023

AUTO TRANSFER SWITCHES
(ATS)

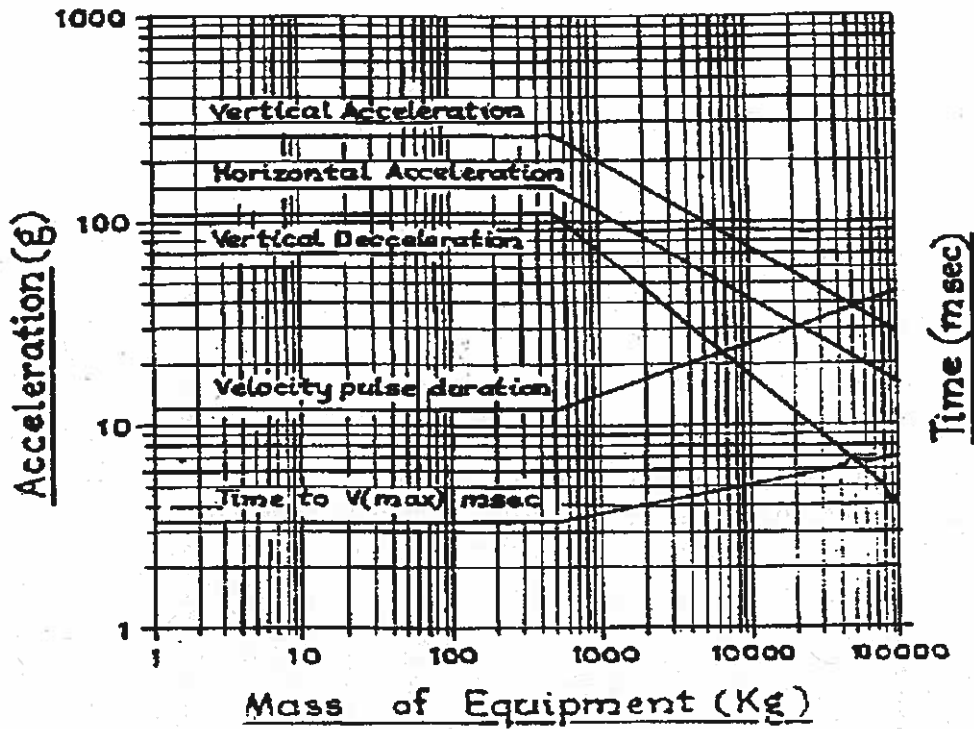
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APPENDIX-08

NHQ OF MOD (N) SHOCK GRADE 'A' CURVE

SHOCK GRADE 'A'



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ANNEXURE-01**CABLE FORM LIST****CABLE FORM LIST**

S. N	Cable No	From		To		Cable Patt No	Con/Gland Type	No of Pins	Cable OD	Length (L)	Signal / Power	Remarks
		Unit	Con/GI and No	Unit	Con/Gland No							

CABLE CONNECTION SCHEDULE

MAGZAGON DOCK LTD			CABLE CONNECTION SCHEDULE				YARD NO	DRG NO	REV NO
NO	PATT NO	CORE NO	FROM		TO		DATE:	SHT NO OF	REMARKS
			EQUIPT	TML/PIN	EQUIPT	TML/PIN			

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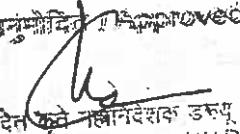
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ANNEXURE-02

**Table for Incoming and Outgoing Cable Details (of ATS)
for the Selection of Cable Glands**

Sr.no	Description	Qty. per ship	Cable no.	Cable OD (mm)	Cable Gland size
1	ATS 250A	02			
2	ATS 150A	01			

Note: Cable Gland Selection under Supplier's scope based on the above data.

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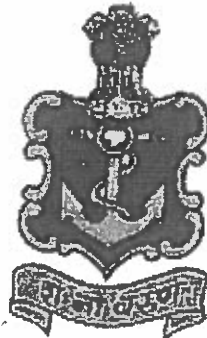
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STATEMENT OF TECHNICAL REQUIREMENTS

FOR

AUTO TRANSFER SWITCH

EED-50-78

ISSUING AUTHORITY

MATERIEL BRANCH

DIRECTORATE OF ELECTRICAL ENGINEERING

INTEGRATED HEADQUARTERS MOD (NAVY)

SENA BHAWAN

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(Indrajit Dasgupta)
Commodore
Cmde (EE)

Date of Issue: 25 Feb 19



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Record of Amendments

Sl.No	Amendment	Authority	Date	Signature
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Revision Note: - Nil

Historical Record: - Nil

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CONDITIONS OF RELEASE

1. This EED Specification has been prepared for the use of the Indian Navy and of its contractors in the execution of contracts for supply of **Auto Transfer Switch(ATS)** to the Indian Navy.
2. This document is a Copyright of the Indian Navy. The information contained in this document is not to be released, reproduced or published without written permission of the Integrated Headquarters Ministry of Defence (Navy).
3. Indian Navy reserves the right to amend or modify the contents of this specification without consulting or informing any holder.
4. This specification may call for the use of processes, substances and procedures that may be injurious to health, if adequate precautions are not taken. It refers only to technical suitability and in no way absolves either the supplier or the user from statutory obligations relating to health and safety at any stage of manufacture or use.
5. Where attention is drawn to hazards, those quoted may not necessarily be exhaustive.
6. These specifications are the property of the Indian Navy and unless otherwise authorised in writing by the Naval Headquarters, must be returned on completion of the contract or submission of the tender, in connection with which it is issued.
7. When the specification is issued in connection with a tender or contract, the user should ensure that he is in possession of the correct version of documents relevant to the particular tender or contract. Inquiries in this connection may be made from IHQ MoD(N), Sena Bhawan, New Delhi. Tele (011) 23010798, Fax: 011-23011212.
8. Unless otherwise specified, reference in this specification to any document means the latest version of the document and all amendments promulgated thereafter.

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Director General WDS(Aniraj Dasgupta)
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CONTROL SHEET

Title	EED-50-78 Auto Transfer Switch
No. of Pages	37
Prepared by	(a) Cdr Vinay Bagi, Cdr(EE) (b) Mr G Srinavasulu, SDM(L)
Checked by	Capt Vivek Sharma, Capt (EE)
Approved by	Cmde Indrajit Dasgupta, Cmde(EE)
Distribution	(a) IHQ MoD (N) {DPRO, DLS, DSP, DND, DQA (N), DQA (WP) DSSD (for ATV HQ)} (b) Command Headquarters (WNC/ENC/SNC/ANC) (c) ND(Mbi/V) (d) DMDE, Secunderabad (e) NSRY (K/PB/Karwar) (f) MO (Mbi/V/Kar) (g) M/s HSL, Visakhapatnam (h) M/s GRSE, Kolkata (j) M/s MDSL, Mumbai (k) M/s GSL, Goa

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For Director General IV D B



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2.	Chapter-II– Technical & Design Requirements	9
3.	Chapter-III– Operational Requirements	15
4.	Chapter-IV– Generic Quality Assurance (QA) Requirements	17
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CHAPTER-I

INTRODUCTION

1. The Auto Transfer Switch (ATS) provides an alternative power supply to an essential equipment in the event of failure or unhealthy condition of normal supply, without interruption of load. In case of restoration of Normal Supply, ATS transfers source of power supply back to Normal with seamless uninterrupted load condition. Unlike traditional ACOS, the ATS provides faster load transfer, which ensures an uninterrupted operation for even most sensitive electronic equipment.

2. This EED covers the design, manufacture, testing, onboard commissioning and product support requirements of Auto Transfer Switch (ATS) to be fitted onboard Indian Naval Warships and other Naval ships/ crafts. Any deviation from these specifications would be considered only with prior approval of IHQ MoD(N)/ DEE. Consideration to departure from the specification will be given when difficulties are encountered during construction.

3. **End User Requirement.** The ATS designed and manufactured as per specifications brought out in the subsequent paragraphs would be used onboard *IN* warships for critical navigation, communication, propulsion controls & software based systems during non-availability of primary supply. The built-in transient voltage surge suppression system for SCR switches shall provide additional protection against damage to supplied devices with following standard features: -

- (a) Transfers loads from a primary power source to an alternate power source in the event of interruption or abnormal conditions.
- (b) Short transfer time (typically less than 20 ms after line failure).
- (c) Elimination of voltage swells, sags and interruptions on switch-over loads.
- (d) Protection against voltage variations out of range.
- (e) Easy to install and operate.
- (f) Status indication for power supply system.

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4. **Applicability of EED.** This EED will be applicable to all new procurements for new construction ships where the build specs specifically mentions this EED. It is also applicable for already commissioned ships undertaking procurement of ATS for



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fitment onboard. However, this EED will not be applicable to any existing orders or any repeat orders for ongoing / existing contracts which are being progressed as per the earlier promulgated Purchase Order Technical Specification.

5. **Scope of EED.** While every effort has been made to ensure the completeness of the list, vendors are cautioned that they are obliged to meet all specified requirements of the documents and standards cited in this EEDs. The design and technical requirements of ATS, Standards and Specifications, Quality Assurance, Installation/ Training, Maintenance and Product Support have been elucidated in subsequent Chapters.

6. **Order of Precedence.** Unless otherwise noted in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

7. **Standards.** The Standards to be referred for design, manufacturing and testing of ATS are specified at Appendix 'A'.

8. **Reliability & Maintainability.** Requirement of reliability and maintainability have been indicated at Appendix 'B'.

9. **EMI/ EMC.** Requirement of Electromagnetic Interference (EMI)/ Electromagnetic Compatibility (EMC) have been indicated in Appendix 'C'.

10. **Scope of System Supply.** Details on scope of supply have been indicated at Appendix 'D'.

11. **Product Support.** Requirement of Product support have been indicated at Appendix 'E'.

12. **Tests - Acceptance.** The tests prior to acceptance of ATS are to be carried out in the presence of *IN* nominated reps. Details of tests to be conducted are explained in Chapter II.

13. **Acronyms.** The following acronyms are included herein for ready reference and are applicable for the purpose of this EED.

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Ser	Terms	Expansion
(a)	AC	Alternating Current
(b)	ATP	Acceptance Test Procedure



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<u>Ser</u>	<u>Terms</u>	<u>Expansion</u>
(c)	ATS	Auto Transfer Switch
(d)	B&D	Base & Depot
(e)	BITE	Built-in Test Equipment
(f)	CE	Conducted Emission
(g)	CS	Conducted Susceptibility
(h)	CoC	Certificate of Conformity
(i)	COTS	Commercial Off The Shelf
(j)	DC	Direct Current
(k)	DEE	Directorate of Electrical Engineering
(l)	DGQA	Director General Quality Assurance
(m)	DOI	Directorate of Indigenisation
(n)	DRDO	Defence Research & Development Organisation
(o)	DSP	Directorate of Ship Production
(p)	EED	Electrical Engineering Department
(q)	EMI/EMC	Electromagnetic Interference / Electromagnetic Compatibility
(r)	ESD	Electro Static Discharge
(s)	ESS	Electronic Stress Screening
(t)	ET	Environmental Tests
(u)	FATs	Factory Acceptance Trials
(v)	GRAQ	General Requirement of Quality Assurance
(w)	IEC	International Electro-technical Commission
(x)	IETM	Interactive Electronic Technical Manual
(y)	ILMS	Integrated Logistics Management System
(z)	INCAT	Indian Naval Catalog of Inventory
(aa)	JSS	Joint Service Specifications

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<u>Ser</u>	<u>Terms</u>	<u>Expansion</u>
(bb)	LED	Light Emitting Diode
(cc)	LFH	Limited Fire Hazard
(dd)	LRU	Line Replaceable Unit
(ee)	LTE	Limited Tender Enquiry
(ff)	MO	Material Organisation
(gg)	MTBF	Mean time Between Failure
(hh)	MTTR	Mean Time to Repair
(ii)	MOV	Metal Oxide Varistor
(jj)	NEC	Naval EMI/ EMC Centre
(kk)	NES	Naval Engineering Standard
(ll)	NSS	Naval Shock Standard
(mm)	OBS	Onboard Spares
(nn)	OEM	Original Equipment Manufacturer
(oo)	OPA	Order Placing Authority
(pp)	PCB	Printed Circuit Board
(qq)	PO	Purchase Order
(rr)	POTS	Purchase Order Technical Specifications
(ss)	RE	Radiated Emission
(tt)	RFI	Radio Frequency Interference
(uu)	QAP	Quality Assurance Plan
(vv)	QC	Quality Control
(ww)	SCR	Silicon Controlled Rectifier
(xx)	SOTRs	Statement of Technical Requirements
(yy)	STTE	Special Testing Tuning Equipment

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CHAPTER-II

TECHNICAL AND DESIGN REQUIREMENTS

1. ATS automatically transfers load from a primary power source to an alternate power source in the event of interruption or abnormal conditions of incoming power supply. The ATS has logic and sensing circuits towards interpretation and switching operations. The built in transient voltage surge suppression system is preferred for SCR switches so as to provide additional protection against damage to the supplied equipment. The load is normally supplied by the primary source, and gets automatically transferred to the alternate source if the voltage of the primary source goes outside permissible range. On restoration of primary source, the supply to load is reverted from alternate to primary. ATS should conform to following technical specifications: -

Ser	Parameter	Characteristics/ Values
Electrical Specifications		
(a)	Input Power Supply	230/ 380/ 415/ 440 VAC, 50/60Hz, 3Ph, 3 Wire (or as defined in the PO)
(b)	Voltage Tolerance	$\pm 10\%$
(c)	Frequency Tolerance	$\pm 5\%$
(d)	Output Power Supply	Same as Input
(e)	Maximum Current	25A/ 50A/ 100A/ 250A/ 300A/ 400A/ 650A (to be specified in POTS)
(f)	Typical Change-over Time	Less than 20 mSec (or specified in the PO as recommended by the OEM)
(g)	Retransfer Change Over time	
(h)	Retransfer Change Over time	Retransfer to normal supply to be effected within 60 secs post restoration of normal supply without affecting the change over time
(j)	Low Voltage Switch Threshold	$90\% V \pm 1.5\%$ of the input voltage
(k)	Under Voltage Range	$90\% \pm 1.5\%$
(l)	Over Voltage Range	$110\% \pm 1.5\%$
(m)	Efficiency at 0.8 pf	$> 90\%$
(p)	Overload Capability (Type Test)	(i) 125% for 30 minutes (100-400A) (ii) 125% for 10 minutes (650 A & above)

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(q)	LED Indications (Main Unit)	(i) Normal Supply available (ii) Alternate Supply available (iii) Load on Normal Supply (iv) Load on Alternate Supply (v) Overload Trip (vi) Fault
(r)	LED Indications (Sub Units/ Controller Card)	(i) Normal Supply Under Voltage (ii) Alternate Supply Under Voltage (iii) Normal Supply Over Voltage (iv) Alternate Supply Over Voltage (v) Over Current (vi) Fuse Failure
(s)	Push buttons/ Selector Switches	(i) ATS ON/ OFF (ii) Load ON/ OFF (iii) Mode Selection Switch: Auto/ Manual (iv) Retransfer to Normal source (v) Manual By Pass/ Emergency Transfer (vi) Reset switch used after fault condition rectified.
(t)	Test Button	Test button to be provided for checking the functionality of the ATS

Mechanical Specifications

(a)	Enclosure Material	Sheet Steel, CRCA-IS513
(b)	Surface Finish	Powder Coated
(c)	Cooling	As per OEM design
(d)	Cable Entry	From bottom
(e)	Access	(i) Side: 250mm for Maintenance (ii) Top: 100mm for Cables (iii) Front: 600mm (iv) Rear: Nil

Environmental Specifications

(a)	Operating Temperature	-10° C to 55° C
(b)	Storage Temperature	Up to 55° C
(c)	Ambient air Temp	5° C to 45° C
(d)	Sea water Temp	2° C to 35° C
(e)	Relative Humidity	< 95% non-condensing
(f)	Ingress Protection	IP 43 - for ATS > 100 amps IP 55 - for ATS < 100 amps

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For Director महानिदेशक डक्यू डी बी
General W D B

2. **Construction & Design Guidelines.** The design of ATS is to cater for economy in weight and size. This is to be designed for mounting vertically either as a module in a switchboard or in its own enclosure which is mounted on a vertical



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bulkhead. Following design aspects are to be considered for stable fit and hassle free operation of ATS: -

- (a) All parts shall be fully accessible for maintenance using removable plug-in subassemblies if necessary.
- (b) Main incoming cables are to be kept isolated from one another and from the outgoing cable.
- (c) It is to be assumed that incoming supplies will not be synchronized and electrical design must take account of the high peak-to-peak voltages possible between cable terminations and busbars.
- (d) Power supplies to relays, electronics etc. are to be derived from both incoming supplies.
- (e) All versions of ATS are to provide outputs for controls and LED indications using power at low voltage derived from power supplies within the ATS.
- (f) For emergency operations, in case of ATS malfunction, a provision needs to be made to bypass the ATS manually. In this 'Manual By Pass' condition, it should not be feasible to connect power supply to load using ATS functionality.
- (g) **Overall Dimensions and Weight.** Overall dimensions and weight of the equipment shall be kept to the minimum as possible.
- (h) **Lifting Arrangement.** Equipment weighing more than 40 kg shall be provided with collar eyebolts or suitable lifting lugs. If the eyebolts cannot remain in situ after the equipment has been installed in the ship, provision is to be made for their securing arrangement on the equipment. Suitable handles must be provided in covers/ panels/doors for easy operation/ removal during maintenance.
- (j) **Mounting Arrangement.** The ATS shall be supplied with suitable base plate/ frame and shock mounts for fitment onboard (decks) ships.
- (l) **Earthing.** Separate earthing bolts shall be provided on the fixtures to connect ATS to the ship's hull.



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For Director General W D B

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Mumbai - 400010.

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(k) **Tally Plate & Circuit Diagram Plate.** Anodized aluminum/ brass tally plates as stated below will be supplied along with the equipment as per NES 723:-

- (i) Equipment Tally.
- (ii) Manufacturer Tally.
- (iii) Circuit Diagram Tally Plate.
- (iv) Switching ON/ OFF procedure.
- (v) Safety Precautions/ Additional details as necessary.

(l) **Internal Wiring:** LFH Cables are required to be used for all internal wirings as per DEF STAN 02-526. All cables should be labeled with relevant markings to identify throughout its length.

(m) **Insulation.** Class 'F' or Higher rating.

(n) **Clearances & Creepage Distances.** As per Def Stan 02-530.

(p) **Safety.** The following safety aspects to be catered: -

(i) Sharp edges/ corners on the enclosures/ doors/ covers should be avoided to the safe handling/ operation/ usage.

(ii) Safety arrangement should be provided for switches/ circuit breakers etc., which are susceptible to accidental activation.

(iii) High voltage areas/ high current switching devices must be insulated or guarded.

(iv) Wherever forced cooling is employed, finger guards must be fixed to the blowers / fans.

(q) **Components, Material and Finish.** All components shall be of Naval approved type for use on warships. Indication lamps used shall be of approved type. Standard specification and grade of material of each component used shall be indicated in the binding drawings. Make and type of components are to be listed in the binding drawings. The quality of material and nature of finish shall confirm to specification NES-507.

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(r) **Terminals.** Bolted type terminals and crimped lugs/ sockets of electrolytic copper are to be provided for all incoming and outgoing cables. All terminals shall be easily and safely accessible for connections as well as checking power supply voltage if needed. Adequate spare terminal strips are to be provided for provision of additional control and indication facilities. Adequate space is to be provided inside the equipment for bending and termination of incoming & outgoing cables.

(s) **Painting.** The painting shall be conforming to specification shade 632 of IS:5 (Powder coating) approved for marine application. The enclosure finish colour shall be admiralty gray, semigloss.

3. **Electrical Protections.** Protection against following input and output circuits shall be provided as an integral part of the equipment: -

- (a) Over Current - + 125 % of rated current
- (b) Under Voltage (Normal & Alternate Supply) - - 15% of rated Voltage
- (c) Over Voltage (Normal & Alternate Supply) - + 10 % of rated Voltage
- (d) MOVs to protect against input voltage surges.
- (e) Semiconductor protection fuses to protect SCRs against short circuit
- (f) SCRs with independent gate triggering circuit to facilitate isolation between power and control circuit
- (g) Short circuit - + 150 % of rated current
- (j) Single Phase (for normal & alternate)

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For Director General W D B

4. **Operator Protection.** To areas where operators have access, the provisions of IEC 60601-1 safety interlocks, apply. Additionally, the following sub-clauses apply to service persons who find it necessary to reach over, under, across and around an un-insulated electrical part or moving part to make adjustments or measurements while the ATS is energized.

- (a) **Covers.** Parts at hazardous voltage or energy level shall be so arranged and covers so located as to reduce the risk of electric shock or high current levels while covers are being removed and replaced.



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(b) **Location and guarding of parts.** Parts at hazardous voltage or energy level and moving parts that involve a risk of injury to persons shall be located, guarded or enclosed so as to reduce the likelihood of unintentional contact by a service person adjusting controls or performing mechanical functions with the ATS energized.

(c) **Parts on Doors.** Parts at hazardous voltage, located on the rear side of a door, shall be guarded or insulated to reduce the likelihood of unintentional contact of the live parts by a service person.

(d) **Component Access.** A component that requires inspection or maintenance while energized shall be so located and mounted with respect to grounded metal parts that it is accessible for electrical service functions without subjecting the service person to the risk of electric shock, hazardous energy level, high current or injury to person by adjacent moving parts. Access to a component shall not be impeded by other components or wiring.

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CHAPTER-III

OPERATIONAL REQUIREMENTS

1. **Basic Structure & Operation of ATS.** The ATS shall consist/ cater for following: -

- (a) A load which is sensitive to variations of utility supply.
- (b) Two independent sources: Normal & Alternate.
- (c) SCR stack which connects the load to the power sources.
- (d) Control logic to monitor voltage threshold of both sources, detect voltage in the system (detection process), compare the two sources, and perform a load transfer from one source to the other if needed (transfer process).
- (e) Input source and output line are protected by transient voltage surge suppression varistors.
- (f) In case of voltage recovery, the load is transferred back to the Preferred Source after the Retransfer delay time.
- (g) Three modes of operation and additional settings to meet site-specific requirements.
- (h) A dummy load to flow some current always through the conducting SCRs to ensure that the current doesn't fall below holding current in case there is some problem in the load.

2. **Operating Modes.** ATS is designed for operation in three modes: -

- (a) **Auto Mode.** In this mode, if Normal source is unhealthy (unavailable) and Alternate source is healthy, then load gets automatically transferred to the Alternate source. If Alternate source is also unhealthy, then ATS will get trip and load will not get supply from any of the sources. Once the Normal source restores back to its specified range, the load gets transferred back to the Normal source after the Retransfer Delay Time (adjustable).
- (b) **Manual Mode.** In this mode, if the Normal source becomes unhealthy, then the load gets transferred to Alternate source. If the Normal source restores back to its specified range, the load continues to get fed from



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Alternate source until the "Retransfer to Normal source" push button is not pressed. After pressing the "Retransfer to Normal source" push button, the load gets transferred back to the Normal source.

(c) **Manual Bypass (Emergency Mode).** In this mode, if the ATS itself becomes defective/ non-operational, then the load gets transferred to 'Normal' supply or Alternate through a manual bypass switch based on the selection of the User.

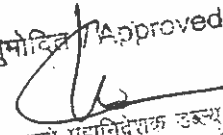
3. Transfer may be triggered in following conditions: -

- (a) Under voltage
- (b) Over Voltage
- (c) Manual change
- (d) Single phasing (normal & alternate)

4. However, Transfer is not allowed in the event of following conditions: -

- (a) Alternate Source Unhealthy/ not available.
- (b) Over Current

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CHAPTER IV**GENERIC QUALITY ASSURANCE (QA) REQUIREMENTS****Introduction.**

1. All quality related activities of the equipment/products shall be governed by a Quality Assurance Plan(QAP) under the inspection authority of DQA(N). The manufacturer should submit draft QAP (Quality Assurance Programme) to the Directorate of Quality Assurance, Navy (DQAN) or nominated QA agency (to be decided by the OPA). Mandatory inspections by the inspection agency shall be listed in the QA Plan. The same would be approved by DQA(N) taking into account the technical specifications, deliberations during the TNC/ CNC and the PO. However, additional inspections may be called for by the inspection authority when considered necessary. The manufacturer shall be responsible to provide for and offer all inspection and testing facilities at manufacturer's and sub-contractor's premises. The supplier is required to submit ATP document to ETMA(Mbi) for vetting prior submission of same to OPA for approval at least 03 months prior acceptance. The approving authority {IHQ MoD (N)} reserves the right to amend/ modify the QAP/ ATP document. The approved QAP and ATP will form basis for inspection/ quality checks/ acceptance of items/ equipment. The equipment, including test battery set, supplied by the vendor would be accepted subject to evaluation and clearance by inspection team. However, the item should be of latest version conforming to current production standard having 100% defined life at the time of delivery. In case of imported items, the inspection of equipment would involve audit of CoCs/ test reports by inspection team rep for applicable ET, EMI/ EMC & ESS specifications as per ATP and verifications of internal QC undertaken by manufacturer at the OEM premises.

2. **Inspection.** The QAP/ATP checks would be carried out by the Authorized Inspection Agency, as below, as appointed by the Indian Navy: -

- (a) Inspection Authority : DQA(N), West Block, RK Puram, Delhi-110066
- (b) Inspecting Officer : Concerned Field Unit of DQA(N)
- (c) Receipt Inspection : Shipyard/ MOs
- (d) Installation : Shipyard/ Repair Yards with participation of OEM.
- (e) Ship trials : As nominated by IHQ MoD (N)/ DEE/ OPA.

Quality Assurance Process.

3. QA Processes commence with receipt of contract. On receipt of the contract from Order Placing Authority (OPA), a 'First Contact Letter (FCL)' will be issued by the Inspecting Agency outlining the actions for the supplier to progress the QA activities.

4. **Approval of Drawings.** The procedure, for providing details in drawings to be submitted by supplier for approval, shall be in accordance with DQA(WP) policy letter no.



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12575/Policy/DGQA/WP-TC dated 16 Mar 16. All types of drawings would be approved by the Order Placing Authority.

5. **Quality Assurance Plan(QAP).** The supplier will provide the set of approved drawings mentioned at Para 4 above along with the Draft QAP to the Inspection Agency under intimation to DQA(N) and OPA within the time stipulated in contract. QAP will be approved by DQA(N) taking into account the contract technical specifications and deliberations during the TNC. QAP is required to be a comprehensive document that will enable the Inspecting Agency to undertake smooth & effective QA activities of the item(s) specified in contract.

6. Mandatory QA activities to be undertaken by the Inspection Agency shall be listed in the QAP. However, additional QA checks may be called for by the Inspection Authority if considered necessary. The supplier shall be responsible to provide all Inspection and Testing facility at the premises of manufacturer and its sub-contractor as specified. The supplier shall intimate Inspection Agency about the date of QA checks at least 10 working days in advance.

7. **Approval of ATP/ FATs Procedure/ GRAQs/ Trial Schedules.** Draft ATP/ FATs document/ Trial documents as applicable are required to be submitted by the supplier to the OPA for approval. Approval of test procedures / Trials related documents would be approved by order placing authority. Approved ATP/ FATs Procedure along with DQA(N) approved QAP shall be the basis for undertaking QA checks of equipment/system by Inspection Agency.

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8. **Test Instrumentation.** To be indicated in the ATP.

9. **Testing.** The QAP will lay down the complete and detailed requirements of QA activities and the methodology for acceptance of items/equipment including Qualification Test (Environmental & EMI/EMC Tests), Material Testing and Environmental Stress Screening (ESS) in any NABL/Govt. approved labs. Provisioning of all tests and inspection facilities in accordance with QAP will be the responsibility of the supplier who is advised to identify the NABL/Govt & approved Labs for undertaking such tests. The bids submitted by the supplier must take into account the cost and time implication in accomplishing the tests. These tests are enumerated as follows and are to be included in the draft QAP submitted by the supplier:-

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General W O B

(a) **Environmental Stress Screening(ESS) Test.** ESS test is carried out on 100% of the items(modules and units/sub-assemblies) comprising electronics components, to identify and eliminate defective, abnormal or marginal parts and manufacturing defects. ESS is to be carried out as per the severities promulgated by DQAN guidelines vide letter no 66301/Policy-07/DQA(N)/QA-07 dated 09 Aug 16(or latest guidelines). The detailed plan for conduct of ESS is to be included in the QAP.

(b) **Qualification (Type) Tests.** The Qualification(Type) Tests on the equipment/system would be undertaken on prototype or first of the production



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model in accordance with DQA(N) guidelines no. 66301/Policy/DQA(N)/QA dated 25 Jan 18.

(c) **Endurance (Burn-In) Test.** Endurance(Burn-In)test would be carried out on the integrated system as per guidelines promulgated by DQAN vide letter no. 66301/Policy-10/DQA(N)/QA-10 dated 14 Jun 13.

10. **Factory Acceptance Tests (FATs).** FATs will be undertaken in accordance with approved FATs Procedure/ ATP by a team constituted by IHQ,MoD(N)/ OPA. Scheduling of FATs would be in accordance with DQA(N) guidelines no. 66301/Policy-26/DQA(N)/QA-19 dated 21 Oct 16.

11. **Preservation & Packing.** Preservation & Packing of the equipment/systems, accessories, spares(OBS/B&D), Test Jigs, Installation Material etc. contracted is to be ensured by supplier against the damage due to weather hazards during storage and transportation by land, sea and air. The sellers shall ensure that the stores are packed and preserved as per the contractual specifications.

12. **Acceptance Criteria for Indigenously Manufactured, Imported and COTS Items.**

(a) **Indigenously Manufactured Items.** QA checks of Indigenously Manufactured equipment/system shall be undertaken iaw guidelines/specifications mentioned at Para 9 above.

(b) **Fully Finished Imported Items(Equipment/System/Spares).** Fully finished Imported Items to be supplied in "As is Where is" condition, shall be accepted based on verification of Import Documents in accordance with DQA(N) guidelines no. 66301/Policy/DQA(N)/SG dated 14 Nov 17 followed by functional checks as per approved ATP(s). List of fully finished imported items shall be approved IHQ,MoD(N).

(c) **Acceptance Norms for COTS Items(Equipment/System/Spares) supplied in 'As-is-Where-is' condition.** The list of all the COTS items to be supplied in "As-is-Where-is" condition as part of deliverables of main equipment, would be approved by IHQ,MoD(N)/OPA indicating "Make and Model" of items. Such items would be accepted based on functional checks as per approved ATP(s), CoC of firm/OEM indicating Make & Model of item(s) and firm's Guarantee/Warrantee certificate.

13. **Acceptance Criteria for systems comprising mix of COTS, Imported and Indigenously Manufactured items.** QA checks of equipment/systems comprising mix of COTS, Imported and Indigenously Manufactured items/sub systems shall be undertaken in a similar manner to that is undertaken for indigenously manufactured system as mentioned at Para 9 above except conduct of ESS directly on Imported and COTS items. ESS on such Imported and COTS items shall be undertaken as under:-

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(a) **Imported Items(Units/Assemblies/PCBs).** Imported items forming part of any higher assembly/equipment which is manufactured indigenously will be subjected to ESS at higher assembly/equipment level iaw DQA(N) guidelines mentioned at Para 8(a) above. In addition; verification of Import Documents in accordance with DQA(N) guidelines no. 66301/Policy/DQA(N)/SG dated 14 Nov 17 shall be undertaken during inspection. List of such imported items is required to be approved by IHQ,MoD(N).

(b) **COTS Items.** All COTS components/items forming part of any higher assembly/equipment which is manufactured indigenously are to be suitably ruggedized and subjected to ESS test at higher assembly/equipment level iaw DQA(N) guidelines 66301/Policy-07/DQA(N)/QA-07 dated 09 Aug 16. The list of such items indicating Make & Model be approved by IHQ,MoD(N).

14. **Acceptance Criteria for Cables.** All the system cables should be LFH type. QA checks of LFH cables shall be undertaken iaw DQA(N) approved MQAP No. DQAN/611118/MQAP Cables(Versoin 3.0 or higher) Feb 08. In addition to respective QAPs of cables, DQA(N) approved Technical Particulars(TPs) for all the cables shall be followed for dimensional/electric checks.

15. **Setting to Work (STW).** The supplier is required to furnish the details of tests to be carried out on-board for carrying out tests by owner's rep. The supplier is also required to provide necessary representative (s) to assist during the following phases (where ever necessary):-

- (a) Onboard installation.
- (b) Trials as per approved procedure.

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CHAPTER V

TESTING

1. The QAP will lay down the complete and detailed requirements of QA activities and the methodology for acceptance of item/equipment against the particular supply order including Environmental Tests(ET), EMI/EMC tests, material testing, Environmental Stress screening (ESS) and Endurance/Burn-in Test etc. in any NABL/Govt approved Labs. Conduct of all the tests and inspection in accordance with QAP will be the responsibility of the supplier who is advised to identify the NABL/Govt. approved labs for undertaking such tests. These tests are enumerated as follows:-

(a) **Environmental Tests (ET)**. The purpose of these tests is to check the ability of the equipment to withstand prolonged environmental effects under which the ATS is likely to operate or stored. ET will be undertaken on the first of the equipment. In case the test has been conducted on the equipment earlier, the supplier will submit the test reports. ET, if already undertaken by the firm against an earlier order, will only need to be repeated if design, manufacturing process, vendor or any other specifications have been changed. The guidelines for conducting ET for equipment have been promulgated vide JSS 5555-2012(rev 3) for indigenous equipment and MIL 810G/equivalent for imported equipment. The shock test for ATS will be in accordance with NSS Grade A and for imported equipment will be MIL STD 901D. The detailed ET plan for the system indicating the device being subjected, test parameters, severities and venue for conduct of the tests to be included in the QAP. The equipment shall be suitable for marine applications and shall achieve the specified output and function smoothly under tropical conditions. It shall withstand air contamination through oil, salt and other contaminants associated with the marine environment. The equipment shall be water drip proof as a minimum requirement. Summary of the tests and severities for ATS are as follows:-

ENVIRONMENTAL TEST SPECIFICATIONS {In accordance with JSS 5555:2012(REV 3)}

<u>S No.</u>	<u>Test</u>	<u>Test No.</u>	<u>Severity</u>	<u>Remarks</u>
(i)	Vibration	28	ATS installed on Major Warship(Main Region)/ Submarines	The equipment should be in switched "ON" condition during the test.
			5 to 33 Hz at ± 0.125 mm displacement for 01 hour at each resonance frequency	The equipment would be mounted on the vibration table by its normal means of attachment on ship.
			ATS installed on Minor Warships(Main Region)	




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			7 to 300 Hz at ± 0.2 mm constant displacement or ± 30 mm/s constant velocity (whichever is less) for 01 hour at each resonance frequency	
(ii)	High Temperature	17	Procedure 6, Test Condition 'K' Operation: 55 ± 3 °C Storage: 70 ± 3 °C Duration: 16 Hours	Performance check during last hour
(iii)	Damp heat	10	Operating temp: $40\% \pm 2$ RH $93 \pm 5\%$ Total duration: 16 Hours	Unpacked and Switched 'OFF' 15+1/2 Hrs Unpacked and Switched 'ON' 1/2 Hrs
(iv)	Low Temperature	20	Procedure 4, Test Condition 'H' Operation: 55 ± 3 °C Storage: 70 ± 3 °C Duration: 16 Hours	Unpacked and Switched 'OFF' 15+1/2 Hrs Unpacked and Switched 'ON' 1/2 Hrs
(v)	Drip Proof	11	Vertical water drip from 1m height for 15 min in 'ON' condition.	
(vi)	Tropical Exposure	27	Test condition A: 7 cycles Temperature: 20 ± 5 °C to 35 ± 2 °C RH 95% Duration: 24 Hrs	Unpacked and Switched 'OFF' condition
(vii)	Mould Growth	21	Temperature: 30 ± 5 °C RH: $>90\%$ Duration: 28 days	To be conducted on representative samples
(viii)	Corrosion (Salt)	9	Procedure 2 Temperature: 35 ± 2 °C RH: 90 to 95%	Unpacked and Switched 'OFF' condition. To be conducted on representative samples
(ix)	Shock test	24	NSS Grade A: 120g, 8ms(vertical) 70g, 8ms(lateral)	अनुमोदित / Approved
(x)	Bump test	5	1000 \pm 10 bumps, -40G, 6 /sec	अनुमोदित करे महासचिव/कडम्पु की वे For Director General W D B

Note. Any deviation from the mentioned specifications will be brought to the notice of IHQ MoD (Navy)/ DEE.

(b) Additional Tests to be undertaken on first/prototype ATS as per details below:-



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- (i) **Ingress Protection Test.** IP as per IEC 60529.
- (ii) **Seaway conditions.** As per NES 1004 for following conditions: -
- (a) Roll- Max $\pm 30^\circ$ with 8 sec period
 - (b) Pitch- Max $\pm 10^\circ$ with 20 sec period
 - (c) Heave- Max ± 4 m with 7 sec period
 - (d) Yaw- Max 1.75° per s^2
 - (e) Tilt (permanent)- Max 15° in any direction
 - (f) List- Max 20° from vertical (permanent)
 - (g) Trim- Max 5°
- (iii) **Inclination/Tilt.** As per CL 0563 Sec 19.

(c) **EMI/EMC tests** The ATS(indigenous/imported) is required to comply with following EMI/EMC tests as per MIL STD 461E/F. The tests to be undertaken are as given below:-

- (i) CE 101, CE 102
- (ii) RE 101, RE 102
- (iii) RS 101, RS 103
- (iv) CS 101, CS 114, CS 116

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(d) **Environmental Stress Screening.** ESS is applied on 100% of electrical and electronic items, modules and units/system to identify and eliminate defective, abnormal or marginal parts and manufacturing defects. ESS is to be carried out as per the severities promulgated by DQAN vide letter No. 66301/Policy-07/ DQA (N) /QA-07 dated 09 Aug 16 or latest guidelines.

(e) **Endurance /Burn-in test** Endurance(Burn-In) test would be carried out on the integrated system on **all production units** as per guidelines promulgated by DQAN vide letter No. 66301/Policy-10/ DQA (N) /QA-10 dated 14 Jun 13.

(f) **Routine Tests** The following routine tests shall be performed on each ATS including prototypes to verify all SOTRs requirements as per approved QAP:-

- (i) Functional Checks to meet the specifications



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(ii) Insulation Resistance Test (with 500V megger/insulation tester as per NES 511, ($> 20M\Omega$).

(iii) High Voltage test as per NES 511(2KV for 1 Minute).

(iv) Physical inspection, Dimensions and Weight

(v) Switching over time between Normal & Alternate Supplies

(vi) Earth Bonding test as per NES 511.

(vii) Milli-volt drop test as per NES 511 (if rated current is More than 100 A.)

(g) **Electrical Type Tests** Following electrical type tests are to be carried out on first/prototype Auto Transfer Switch as per NES 511:-

- (i) Through Fault test
- (ii) Short Circuit test
- (iii) Temperature rise test

2. **Test Facilities.** The Environmental Tests, ESS tests and EMI/EMC tests could be conducted at any of the National accredited labs available in the country with DRDO/DGQA and private sector. The details of the test facilities available i.e. 'Weight', 'Chamber Dimensions' and 'Loading Capacity' along with the postal address of the labs have been promulgated by IHQ MoD(N)/ DOI vide 'Compendium of Test Facilities' document DI/DOC/03/2013. The document is available in public domain at <http://www.indiannavy.nic.in/link material branch/doi>.

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Appendix 'A'

(Refers to Para 7 of Chapter I)

SUMMARY OF APPLICABLE STANDARDS/ SPECIFICATIONS

<u>Ser</u>	<u>Particulars</u>	<u>Reference</u>	<u>Remarks</u>
1.	Requirement for cables, electric rubber insulated LFH sheathed for general services.	NES 526	
2.	Internal Wiring	Defence Standard 61-12 (Part 18)	
3.	General requirements for the design of electro-technical equipment.	NES-501	
4.	Size of Gland	NES 512	
5.	Cable Glands	NES 514 & DGS/EED/VI/1535/R6	
6.	Creepage & Clearance	NES 609	
7.	Size of tally plate and letters for customized units	NES 723	
8.	Safety Markings on units/ devices	NES 784	
9.	Components, Material & Finish	NES 507	अनुमोदित Approved
10.	Guide to electronic components and practice	NES-581	अनुमोदित कृत महानिदेशक डब्ल्यू डी वी For Director General W D B
11.	Shock Standards	JSS 5555:2012 (Version (3.0))	
12.	Shock Test for	MIL STD 901D	



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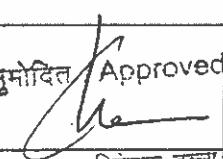
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<u>Ser</u>	<u>Particulars</u>	<u>Reference</u>	<u>Remarks</u>
	Imported Equipment		
13.	Inclination/ Tilt	CL 0563	
14.	EMI/ EMC	MIL-STD-461E/F	
15.	Seaway Conditions	NES 1004	
16.	Environmental Testing	JSS 55555:2012 (Version (3.0))	
17.	Environmental Stress Screening	66301/Policy-07/DQA(N)/QA-07 dated 09 Aug 16 or latest guidelines	
18.	ESD Protection	IEC 61000-4-2	
19.	Preparation & Supply of Technical Documents for Electrical & Electronic equipment	JSS-0251-01 & EED-S-048	
20.	IETM	Level 4	
21.	Classification of Degree of Enclosure Protection	IS- 12063/87	
22.	Requirements for Electrical testing of equipment	NES 511	अनुमोदित / Approved 
23.	Electrical Safety Requirements	IEC 60950-1	अनुमोदित कृत मसुनिदेशक डब्ल्यू डी बी For Director General W D B
24.	Endurance/Burn-in test	66301/Policy-10/DQA(N)/QA-10 dated 14 Jun 13	
25.	Type testing	66301/Policy/DQA(N)/QA dt 25 Jan 18	
26.	Ingress Protection test	IEC 60529	



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Appendix 'B'

(Refers to Para 8 of Chapter I)

GENERAL STANDARDS AND SPECIFICATIONS
RELIABILITY AND MAINTAINABILITY

1. **System Performance.**

(a) **Design Review.** The OEM is required to schedule formal design reviews during the initial development (only for first time induction) of the system to ensure that the user requirements and envisaged functionalities are captured correctly at the design stage. The frequency of the design reviews will be finalized during the contract conclusion.

(b) **Reliability.** The system design should be based on standard engineering principles to provide a reliable product. The reliability figures in terms of MTBF / MTTR shall be estimated by the OEM and submitted as part of the technical proposal. The system performance will degrade gracefully in the event of a failure. The system will contain no 'single point' control, whose malfunctioning would result in a catastrophic failure.

(c) **Maintainability.** The built-in test equipment (BITE) if applicable will be capable of detecting and localizing faults down to a single replaceable PCB/Module.

2. **MTBF/MTTR.** System shall be designed for high MTBF (Mean Time Between Failures) of greater than 10000 hours and low MTTR (Mean Time To Repair) of not exceeding 60 minutes.

3. **Commonality.** The manufacturer to mention the level of commonality achieved within the system at the following levels:-

- (a) Module/sub module level.
- (b) PCB level.
- (c) Component level.

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Appendix 'C'

(Refers to Para 9 of Chapter I)

GENERAL STANDARDS AND SPECIFICATIONS
EMI / EMC CONSIDERATIONS

1. **EMI/EMC Specifications.** The entire system should have total electro-magnetic compatibility with all shipboard equipment. EMI/EMC checks are to be undertaken as per MIL STD 461 'E/F'. The OEM/Vendor would be required to submit draft EMI/EMC test plan and test schedule for vetting by IN/ NEC (Mbi). On approval of the plan and schedule by IHQ MoD(N), the ATS to be subjected to EMI/EMC testing as per the requirements and test results/graphs be submitted to IHQ MoD (N) post scrutiny/vetting of IN/ NEC (Mbi).

2. **ESD Protection.** The system design will take into account adequate measures for Electro Static Discharge (ESD) control and protection at PCB/module/assembly and unit level. Each Electro Static Discharge sensitive part/assembly will be duly marked with a symbol/warning. The manufacturer will use ESD protective materials for handling, packaging storage and transport. The immunity to electrostatic discharges shall be tested according to IEC 61000-4-2.

3. The equipment are to be designed for EMI/EMC compatibility by providing suitable EM gaskets and Cu-Be strips at openings and are to be properly grounded. AC lines are to be filtered for RFI in each cabinet. Shielded twisted pair cables are to be used where signals are susceptible to interferences. Multi-core twisted pair cables with overall shield are to be used for signal and control data interconnection and they are to be properly terminated. The DC supplies are to be adequately filtered and each PCB is to be provided with transient suppressors.

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Appendix 'D'

(Refers to Para 10 of Chapter I)

**GENERAL STANDARDS AND SPECIFICATIONS
SUPPLIER'S SCOPE OF SYSTEM SUPPLY**

1. **Power Rating.**

(a) Equipment shall be provided with adequate markings in order to specify input supply requirements & output supply ratings.

(b) For equipment with multiple rated voltages, the corresponding rated currents shall be marked such that the different current ratings are separated by a solidus (/) and the relation between rated voltage and associated rated current appears distinctly.

(c) Equipment with a rated voltage range shall be marked with either the maximum rated current or with the current range.

(d) The markings of input & output shall include in addition to the following:

(i) Output rated voltage.

(ii) Output rated current or rated power in volt-amperes or active power in watts.

(iii) Output rated power factor, if less than unity, or active power and apparent power or active power and rated current.

(iv) Number of output phases (1 Φ – 3 Φ) with or without neutral. अनुमोदित / Approved


(v) Output rated active power, in watts or kilowatts.

(vi) Output rated apparent power in volt-ampere or kilovolt-ampere.

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2. The supplier's scope of system supply shall cover the supply of equipment, Installation Material, Spares, Drawings and Documentation of ATS. The supplier is to list down in detail, the deliverables to be provided to the customer at various stages of supply as mutually agreed upon. The complete scope of supply of the system by supplier shall include material as given in succeeding paragraphs.




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3. **Installation Material.** One set of installation material that includes connectors, shock mounts, special fasteners, special tools, special fittings etc. which shall be supplied by the supplier as applicable.

4. **Testing and Tuning Spares.** The supplier shall recommend one set of Testing and Tuning Spares as required for installation and maintenance onboard.

5. **Special Tools and Test Equipment.** The OEM is to provide details of following test equipment that would be required taking into account IN's maintenance philosophy.

(a) **Onboard Test Equipment.** This should be adequate to meet the requirement of all repairs/ maintenance expected to be carried out onboard ship by the ships staff.

(b) **Special Test Equipment.** Special-to-type test equipment, if applicable shall be made available in the shore base for specific tests/checks on the equipment.

6. **Service of Engineer.** The supplier is required to provide the necessary representative(s) during the following phases to assist in carrying out wherever necessary:-

- (a) Installation of ATS onboard ships.
- (b) Onboard Trials.

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7. **On Board Spares (OBS).** The supplier shall prepare the list of OBS (including onboard maintenance tools) based on the Reliability and Maintainability data and taking into account IN's maintenance philosophy, and shall forward to IHQ MoD (N)/ DEE for vetting during the pre-bid meeting. The manufacturer should clearly indicate the basis for ranging and scaling of spares. This should include the list of spare parts, tools and accessories, which must be carried on the ship, for preventive maintenance, trouble shooting and quick repairs to ensure no more than 30 minutes of 'Down Time' for the system at any given instance. One set of OBS is to be supplied with the system. The complete inventory of system parts including OBS & B&D spares is to be provided in INCAT (Indian Naval Catalogue of Inventory) compatible format in electronic media for ILMS (Integrated Logistics Management system) of Indian Navy, for the management of spares. The supplier shall provide both hard copy as well as soft copy. PCBs offered as OBS should also undergo Endurance Test either on a reference system or on main system. However, in case the quantity of PCBs is large, Endurance Test to be conducted on a sampling plan,



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approved by Inspection Authority. List of all spares/ items used in the system with the following classification and details are to be provided to the IN during the pre-bid meeting:-

- (a) COTS / Non-COTS items.
- (b) PCB or module functionality - Processor Function/ Input - Output Function
- (c) With /without embedded software.
- (d) Produced by vendor quoting/ sourced.
- (e) Repairable by vendor quoting/ repaired by third party.
- (f) Checked by BITE/ Not Checked by BITE.
- (g) Estimated MTBF in hours.
- (h) Circuit diagrams available/ not available.
- (j) Consumables like fuses, indication lamps etc.
- (k) Numbers/ quantity fitted the system.
- (l) Shelf life of spare.
- (m) Itemised cost of all items.

8. **Five Year Base and Depot Spares.** The OEM should forward recommended list of B&D spares, tools and test equipment for vetting of IHQ MoD (N). B & D Spares should consist of spare parts and modules required to replenish depot holdings for a period of five years. These should also contain complete subsystems and assembly spares for the major refit (and thorough checking thereafter) of the system. It should also include exclusive Depot Spares comprising PCBs. The manufacturer should clearly indicate the basis for ranging and scaling of spares. The supplier shall also provide finalised / approved list of B&D spares in Indian Naval Catalogue of Inventory (INCAT) databank compatible format in electronic media. The onboard, base and depot, testing & tuning spares and long term exploitation spares should be indicated with a standard part no for identification and traceability as per Navy's standards. Order for B&D spares would be placed separately. Following points in respect of spares of the equipment needs to be mentioned :-

- (a) The basis of ranging and scaling to be clearly indicated.
- (b) Commitment from the manufacturer for continuous customer support and spare support for a specified duration for the life of the equipment.
- (c) Commitment to undertake up gradation of the spares if required due to non-availability of the spares due to obsolescence.

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(d) The supplier is required to indicate the make and part no. of each item. The details of spares are to be provided in ILMS format (both hard copy and soft copy to be provided).

(e) Base spares recommendation is to cover maintenance / overhaul requirements for 5 years including two refits.

(f) The details of tools and STTE required for carrying out 3rd and 4th level maintenance to be included in the offer.

(g) The supplier shall provide average life of all B & D spares and specify the turnaround time required for repairs/replacement of each spare.

9. **Drawings and Documentation.** Detailed data and information related to installation procedure, operation and maintenance manuals, maintenance schedules and test certificates for major components are required to be furnished as below by the manufacturer: -

(a) Firm is required to submit one hard copy and one soft copy of the draft system documents to Navy for vetting at least 3 months prior to conduct of ATP of the equipment.

(b) One set of finalised/ approved documents should be supplied with the equipment. Additional 6 sets (hard copy) and one soft copy on CD ROM of documents should also be supplied.

(c) Supply of documents will be part of the order and should be costed for in the order.

(d) Documents in CD-ROM are to be as per Level 4 Interactive Electronic Technical Manual (IETM).

(e) The documentation and drawings as applicable shall contain complete information for installation, operation, inspection, maintenance, repair / overhaul, testing and trials and should include the following:-

Ser	Description	Remarks
(i)	Design Specifications	The design specification for the System and its role needs to be mentioned.



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(ii)	User hand book	Covering composition and brief description of equipment with block diagram; Technical parameters; Brief technical description with Photographic or graphical representation of each unit; Detailed functional and Operating instructions giving safety instructions, precautions, Switching-on and switching off procedures, Tables of fault indication and fault codes etc; Storage, Preservation/ De-preservation, Transit Procedure etc.
(iii)	Technical manual	Covering detailed technical description of each unit with associated drawings and diagrams. It should also include data on Integrated circuits and semiconductor components
(iv)	Installation manual	Covering composition of equipment, Cabling diagram and cable specifications, Cable connection schedule, Complete binding data, Installation drawings, List of installation materials, List of Accessories, Detailed installation instructions.
(v)	Maintenance and Repair manual	Covering Instructions on servicing; Planned Preventive Maintenance; on dismantling and assembling of each unit; Faults, their causes and remedial action; Repair, overhaul & Reconditioning, Testing, adjusting, calibrating and tuning of each unit, List of special tools, test equipment, Jigs and gauge.
(vi)	Maintenance Schedule	Comprehensive Maintenance Schedules are to be provided along with system. These schedules should cover all the relevant aspects and provide the user/maintainer with adequate literature for reference, to prepare the Engg. Support Documents.
(vii)	Part catalogue, List of spare parts, Test equipment	The manual should include- (a) Catalogue of parts listing out all the replaceable parts (b) List of On board spares (c) List of B&D spares

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		(d) List of test equipment (e) Service Log Books
(viii)	Instructions on Testing & Tuning and Setting To Work	Containing instructions on Testing and Tuning, alignment, Checking and adjustment to individual parts and of the equipment as a whole.
(ix)	System Integration Plan	Containing technical details of all the hardware and software interfaces with the external systems (if applicable).
(x)	'As Made' drawings	As applicable
(xi)	Test data/certificates	As applicable
(xii)	Test and Trial schedules	(a) In-production Test Procedures (b) Engineering, Environmental and Quality Inspection Procedures Installation Check Schedule

10. **Binding Data.** Three hard copies and two sets on CD ROM of the following binding drawings/ documents are to be supplied by the OEM within 13 weeks of placement of order: -

- Block diagram of the system
- Installation documents covering detailed procedure for installation with sequence of activities.
- Installation drawings indicating overall dimensions, C.G., weight, maintenance envelope etc of each unit.
- Recommended arrangement of devices in nominated compartments.
- Inter unit-cabling diagram with cables specifications.
- Cable connection Schedule.
- Power supply scheme for the system.
- Heat Dissipation of individual units in compartment & in close loop ventilation system, as required for the system.
- Parts identification list, indicating part no, qty., maker's name, Specification etc.

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(k) Detailed foundation drawing including bolting plan.

11. **Shipping.** All equipment shall be adequately packed and protected with supports to ensure adequate protection during all modes of transportation. Each unit within a package/container shall be clearly marked for identification. The container shall clearly indicate the item description with caution marks, quantity, weight, size etc. A separate document giving details and instructions for storage, preservations, handling and transportation after delivery is to be supplied. The supplier should indicate the delivery schedule, transport, packing, preservation, insurance etc.

12. **Preservation, Packaging and Shipping.** The stores (including OBS and B&D Spares) shall be supplied in long-term preserved condition that is suitable for storage under tropical high humidity conditions for a period of 24 months.

13. **Part Identification List.** The OEM shall prepare and submit a Parts Identification List (PIL) list, showing exploded views of equipment supplied to the Line Replaceable Unit (LRU) level, which shall include exploded view drawings of all equipment clearly showing how equipment is assembled. All equipment and components shown shall be identified by OEM part number shown in a tabulated parts list provided with the drawing. The PIL shall be organised such that it supports logical retrieval of data. The PIL description shall be part of the Operator's and Maintenance Manual. The PIL shall be included in the CD-ROM technical manual. (The Parts Identification list that gives the list of items up to LRU level is to be submitted at the time of submission of offer).

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अनुमोदित कुते महानिदेशक इस्सू डी बी
For Director General W D B



(Ajdrajit Dasgupta)
Commodore
Cmde (EE)

**MAZAGON DOCK LTD.**

(A Government of India Undertaking)
Dockyard Road,
Mumbai - 400010.

SHIP BUILDING - DESIGN
ELECTRICAL & WEAPON SECTION

TSP NO.

DR/P17A/5317

REV. NO.

B

PROJECT 17A
(MDL YARD NO.12651/652/653/654)
(GRSE YARD NO. 3022/3023/3024)

DATE

22 NOV 2023

AUTO TRANSFER SWITCHES
(ATS)

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Appendix 'E'

(Refers to Para 11 of Chapter I)

GENERAL STANDARDS AND SPECIFICATIONS
PRODUCT SUPPORT

IN Maintenance Philosophy

1. **Onboard Repair/ Maintenance.** Onboard repair shall be restricted to replacement at PCB/ Modules (LRU) level. Routine maintenance and serviceability check/terminal performance checks would also be undertaken by ships staff as part of 1st line maintenance.

Product Support from Vendor


2. The supplier should undertake to ensure guarantee and continuous product support for a period of 15 years from the date of supply of the first system and associated equipment, by way of the following: -

- (a) Supply of spare parts and materials.
- (b) Offering of alternative solutions in the event of obsolescence of the components/technologies, including those bought out or subcontracted.
- (c) Continuous up-gradation program.
- (d) Modifications and repairs.
- (e) Provide at least two years notice, in the event of any likely production shut down (only after 10 years of support) to enable procurement of LTE spares.
- (f) Undertake repairs through Annual Maintenance Contract/Rate Contracts as and when directed by the user//IN Repair Yard/ IHQ MoD (N).
- (g) Continuous supply of amendments to the documentation.

3. **Repair Facilities.** If required by the order placing authority, a consolidated test bench to test the modules/PCBs of the equipment would be required to be provided by the OEM as part of Dockyard Support Package. Beyond first level maintenance facilities on board, the manufacturer would be required to setup requisite advance level maintenance facilities at locations (Naval Dockyard) approved specified by IN as part of the Dockyard Support Package

4. **Hardware Warranty.** The warranty period of ATS systems should be for duration of 18 months from the date of completion of commission and on-board trials.




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5. **Training.** The Training program objective is to enable the End User Personnel to operate, maintain, and install the ATS system. The Training package is to include the following:-

(a) **Basic Training.** The manufacturer should undertake the responsibility of training naval personnel (including civilian personnel of the yard), as nominated by IHQ MoD (N), on the exploitation and maintenance of the ATS system. The duration of training and number of personnel should be worked out by the manufacturer in consultation with IHQ MoD (N)/ OPA.

(b) **Advanced Training.** If required the manufacturer shall also undertake the training of naval and defence civilian personnel, in carrying out major repairs in the Naval dockyard by using Special Test Equipment/ Special Maintenance Equipment. The training shall include assembling and dissembling of the equipment up to PCB/ component level.

6. **Maintenance.** The manufacturer should forward recommended maintenance schedules for preventive and corrective maintenance of the system within three months of placement of order for necessary approval at IHQ/ OPA.

अनुमोदित / Approved

अनुमोदित कृते महानिदेशक उरुव्यू जी जी
For Director General W D B



(Indrajit Dasgupta)
Commodore
Cmde (EE)



Tender Enquiry

Enclosure to Tender Enquiry: Part 'A': Tender Terms and Conditions
Tender No. 1700000552
Item: Auto Transfer Switch (ATS)
Project: P17A
Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

Section V - Annexure / Format

Integrity Pact (IP) Format

Mazagon Dock Shipbuilders Limited (MDL) hereinafter referred to as "**The Principal/Buyer**"

And.....hereinafter referred to as "**The Bidder/ Contractor**"

Preamble

The Principal/Buyer intends to award, under laid down organizational procedures, contract/s for **Tender No. 1700000552 for Supply of Auto Transfer Switches (ATS) for 07 Ships of P17A**. The Principal/Buyer 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) and /or Contractor(s).
In order to achieve these goals, the Principal/Buyer will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal/Buyer:

- | | |
|-----|---|
| (1) | The Principal/Buyer commits itself to take all measures necessary to prevent corruption and to observe the following principles: |
| a) | No employee of the Principal/Buyer, 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/Buyer will during the tender process treat all Bidder(s) with equity and reason. The Principal/Buyer will in particular, before and during the tender process, provide 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 contract execution. |
| c) | The Principal/Buyer will exclude from the process all known prejudiced persons. |
| d) | The Principal/Buyer undertakes to scrupulously follow the tender containing Standard Terms & Conditions (STAC) and General Terms & Conditions (GT&C) in respect of procurement contracts for goods, services and civil works. |
| (2) | If the Principal/Buyer obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal/Buyer will inform the Chief Vigilance Officer, MDL 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 persons or firm, offer promise or give to any of the Principal/Buyer'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 or 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. |



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c)	The Bidder(s)/Contractor(s) will not commit any offence under the relevant Anti-Corruption Laws of India; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to other, any information or document provided by the Principal/Buyer 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 principals, if any. All payments made to the Indian Agent/representative have to be in Indian Rupees only. Further details as mentioned in the "Guidelines of Indian Agents of Foreign suppliers" shall be disclosed by the Bidders(s)/Contractor(s). Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as Annexure-A.
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.
f)	The Bidder (s)/Contractor(s), their agents, representatives shall not do such things so as to interfere with the procedures laid down in the Principal/Buyer's tender containing the Standard Terms and Conditions (STAC) and General Terms and Conditions (GT&C) in respect of procurement contracts for goods, services and civil works.
g)	The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
(2)	The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlines above or be an accessory to such offences.

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

	If the Bidder(s)/Contractor(s) before contract award or during execution of Contract has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility as Bidder(s) in question, the Principal/Buyer is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or to terminate the contract, if already signed for such reason, as per the procedure mentioned in the "Guidelines on Banning of business dealings" Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annexure-B.
1)	If the Bidder(s)/Contractor(s) has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal/Buyer is entitled also to exclude the Bidder(s)/Contractor(s) from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder(s) and the amount of the damage. The exclusion will be imposed for a minimum of <u>six</u> months and maximum of <u>five</u> years, which may be further extended at the discretion of the Principal/Buyer.
2)	A transgression is considered to have occurred, if the Principal/Buyer after due consideration of the available evidence, concludes that no reasonable doubt is possible.
3)	The Bidder (s) accepts and undertakes to respect and uphold the Principal/Buyer's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the



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	lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining legal advice.
4)	If the Bidder(s)/Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Buyer may revoke the exclusion prematurely.

Section 4 – Sanctions for Violation:

(1)	Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other Act enacted for the prevention of corruption shall entitle the Principal/Buyer to take all or any one of the following actions, wherever required –
a)	To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder (s) would continue.
b)	The Earnest Money Deposit/Security Deposit/Performance Bond shall stand forfeited either fully or partially, as decided by the Principal/Buyer, and the Principal/Buyer shall not be required to assign any reason there for.
c)	To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.
d)	To recover all sums already paid by the Principal/Buyer, in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Base Rate of SBI, and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other Defence stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
e)	To en-cash the advance Bank Guarantee and Performance Bond/Warranty bond, if furnished by the Bidder, in order to recover the payments, already made by the Principal/Buyer, along with interest.
f)	To cancel all or any other contracts with the Bidder.
g)	To debar the Bidder from entering into any bid from Principal/Buyer for a minimum period of five years, which may be further extended at the discretion of the Principal/Buyer.
h)	To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.
i)	If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to rescind the contract without payment of any compensation to the Bidder.
	The term 'close relative' for this purpose would mean spouse whether residing with the Principal/Buyer's employee/employees or not, but not include a spouse separated from the Principal/Buyer's employee/employees by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Principal/Buyer's employee/employees, but does not include a child or step child who is no longer in any way dependent upon the Principal/Buyer's employee/employees or of whose custody the Principal/Buyer's employee/employees has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Principal/Buyer's employee/employees or to the Principal/Buyer's employee/employees wife or husband and wholly dependent upon Principal/Buyer's employee/employees.



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j)	The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Principal/Buyer, and if he does so, the Principal/Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Principal/Buyer resulting from such rescission and the Principal/Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.
k)	In cases where Irrevocable Letters of Credit have been received in respect of any contract signed by the Principal/Buyer with the Bidder, the same shall not be opened.
(2)	The decision of the Principal/Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the same Bidder can approach the Monitor(s) appointed for the purposes of this Pact.

Section 5 - Previous Transgression:

(1)	The Bidder declares that no previous transgressions occurred in the last three 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 further action can be taken.

Section 6 - Equal treatment of all Bidders/Contractor(s)/Subcontractors:

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

Section 7 - Criminal charges against violation Bidder(s)/Contractor(s)/ Subcontractor(s):

(1)	If the Principal/Buyer obtains knowledge of conduct of a Bidder, Contractor or subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor of subcontractor which constitutes corruption or if the Principal has substantive suspicion in this regard, the Principal/Buyer will inform the same to the Chief Vigilance Officer, MDL.
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Section 8 - Independent External Monitor/Monitors:

(1)	The Principal/Buyer 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 representatives of the parties and performs his functions neutrally and independently. He reports to the Chairman & Managing Director of the Principal/Buyer.
(3)	The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal/Buyer 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/Buyer will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the



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	contractual relations, between the Principal/Buyer 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/Buyer 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. However, the Monitor shall give an opportunity to the Bidder(s)/Contractor(s) to present its case before making its recommendation to the Principal/Buyer.
(6)	The Monitor will submit a written report to the Chairman & Managing Director of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the Principal/Buyer 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 Board of Principal/Buyer.
(8)	If the Monitor has reported to the Chairman & Managing Director of the Principal, a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India and the Chairman & Managing Director of the Principal/Buyer 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, Government of India.
(9)	The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration:

	<p>This pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract and for all other Bidders 06 months after the contract has been awarded.</p> <p>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 & Managing Director of the Principal/Buyer.</p>
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Section 10 - Other provisions:

(1)	This agreement is subject to Indian Law, place of performance and jurisdiction is the Registered Office of the Principal/Buyer, i.e. Mumbai (For MDL). The Arbitration clauses provided in the main tender document/ contract shall not be applicable for any issue/dispute arising under this Integrity pact.
(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.

Section 11 – Fall Clause: #

“The Bidder undertakes that it has not supplied/is not supplying similar products/ systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the Bidder to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance of elapsed time, will be applicable to the present



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case and the difference in the cost would be refunded by the Bidder to the Principal/Buyer, if the contract has already been concluded.”

For & on behalf of

Mazagon Dockshipbuilders Limited

(Office Seal)

Place _____

Date _____

Witness 1:

(Name & Address)

For & on behalf of

Bidder/Contractor

(Office Seal)

Witness 2:

(Name & Address)



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Annexure-A

GUIDELINES FOR INDIAN AGENTS OF FOREIGN SUPPLIERS

1.0	There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with MDL shall apply for registration.
1.1	An agent shall represent only one Foreign Supplier and not represent two suppliers or quote on their behalf in the same tender.
	However, either the Indian Agent on behalf of the Foreign Suppliers (also includes foreign manufacturers) or the Foreign Suppliers (also includes foreign manufacturers) directly could bid in a tender, but not both. In cases where an agent participates in a tender on behalf of one manufacturer, shall not quote on behalf of another manufacturer along with the first Manufacturer in a subsequent/parallel tender for the same item.
1.2	Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/remuneration/salary/ retainer ship being paid by the principal to the agent before the placement of order by MDL.
1.3	Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.

2.0 DISCLOSURE OF PARTICULARS OF AGENTS/ REPRESENTATIVES IN INDIA, IF ANY.

2.1	Tenderers of Foreign nationality shall furnish the following details in their offer:	
	2.1.1	The name and address of the agents/representatives in India, if any and the extent of authorization and authority given to commit the Principals. In case the agent/representative be a foreign Company, it shall be confirmed whether it is real substantial Company and details of the same shall be furnished.
	2.1.2	The amount of commission/remuneration included in the quoted price(s) for such agents/representatives in India.
	2.1.3	Confirmation of the Tenderer that the commission/ remuneration if any, payable to his agents/ representatives in India, may be paid by MDL in Indian Rupees only.
2.2	Tenderers of Indian Nationality shall furnish the following details in their offers:	
	2.1.1	The name and address of the foreign principals indicating their nationality as well as their status, i.e, whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/representatives.
	2.2.2	The amount of commission/remuneration included in the price (s) quoted by the Tenderer for himself.
	2.2.3	Confirmation of the foreign principals of the Tenderer that the commission/remuneration, if any, reserved for the Tenderer in the quoted price (s), may be paid by MDL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items .
2.3	In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission /remuneration, if any payable to the agents/representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.	
2.4	Failure to furnish correct and detailed information as called for in paragraph-2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by MDL. Besides this there would be a penalty of banning business dealings with MDL or damage or payment of a named sum.	



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Annexure-B

GUIDELINES ON BANNING OF BUSINESS DEALINGS CONTENTS

Sr.	Description
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4.	Initiation of Banning / Suspension
5.	Suspension of Business Dealings
6.	Ground on which Banning of Business Dealing can be initiated
7.	Banning of Business Dealings
8.	Removal from List of Approved Agencies-Suppliers/ Contractors etc.
9.	Procedure for issuing Show-cause Notice
10.	Appeal against the Decision of the Competent Authority
11.	Review of the Decision by the Competent Authority
12.	Circulation of the names of Agencies with whom Business Dealings have been banned

1. Introduction

1.1	Mazagon Dock Shipbuilders Limited (MDL), being a Public Sector Enterprise and 'State', within the meaning of Article 12 of Constitution of India, has to ensure preservation of rights enshrined in Chapter III of the Constitution. MDL as also to safeguard its commercial interests. MDL deals with Agencies, who have a very high degree of integrity, commitments and sincerity towards the work undertaken. It is not in the interest of MDL to deal with Agencies who commit deception, fraud or other misconduct in the execution of contracts awarded / orders issued to them. In order to ensure compliance with the constitutional mandate, it is incumbent on MDL to observe principles of natural justice before banning the business dealings with any Agency.
1.2	Since banning of business dealings involves civil consequences for an Agency concerned, it is incumbent that adequate opportunity of hearing is provided and the explanation, if tendered, is considered before passing any order in this regard keeping in view the facts and circumstances of the case.

2. Scope

2.1	MDL reserves its rights to remove from list of approved suppliers / contractors or to ban business dealings if any Agency has been found to have committed misconduct and also to suspend business dealings pending investigation.
2.2	Similarly, in case of sale of material there is a clause to deal with the Agencies / customers / buyers, who indulge in lifting of material in unauthorized manner.
2.3	However, absence of such a clause does not in any way restrict the right of MDL to take action / decision under these guidelines in appropriate cases.
2.4	The procedure of (i) Removal of Agency from the List of approved suppliers / contractors; (ii) Suspension and (iii) Banning of Business Dealing with Agencies, has been laid down in these guidelines.
2.5	These guidelines apply to all the Divisions/Yards of MDL.
2.6	It is clarified that these guidelines do not deal with the decision of the Management not to entertain any particular Agency due to its poor / inadequate performance or for any other reason.
2.7	The banning shall be with prospective effect, i.e., future business dealings.

3. Definitions

In these Guidelines, unless the context otherwise requires:



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|------|--|
| i) | 'Bidder / Contractor / Supplier / Purchaser / Customer' shall mean and include a public limited company or a private limited company, a firm whether registered or not, an individual, a cooperative society or an association or a group of persons engaged in any commerce, trade, industry, etc. 'Bidder / Contractor / Supplier / Purchaser / Customer' in the context of these guidelines is indicated as 'Agency'. |
| ii) | 'Inter-connected Agency' shall mean two or more companies having any of the following features: |
| | a) If one is a subsidiary of the other. |
| | b) If the Director(s), Partner(s), Manager(s) or Representative(s) are common; |
| | c) If management is common; |
| | d) If one owns or controls the other in any manner; |
| iii) | 'Competent Authority' and 'Appellate Authority' shall mean the following: |
| | a) Functional Director shall be the 'Competent Authority' for the purpose of these guidelines. CMD, MDL shall be the 'Appellate Authority'. |
| | b) CMD, MDL shall have overall power to take suo-moto action on any information available or received by him and pass such order(s) as he may think appropriate, including modifying the order(s) passed by any authority under these guidelines. |
| iv) | 'Investigating Department' shall mean any Department or Unit investigating into the conduct of the Agency and shall include the Vigilance Department, Central Bureau of Investigation, the State Police or any other department set up by the Central or State Government having powers to investigate. |
| v) | 'List of approved Agencies – Bidder / Contractors / Suppliers / Purchasers / Customers shall mean and include list of approved / registered Agencies - Bidder / Contractors / Suppliers / Purchasers / Customers, etc. |

4. Initiation of Banning / Suspension

- | | |
|--|---|
| | Action for banning / suspension business dealings with any Agency should be initiated by the department having business dealings with them after noticing the irregularities or misconduct on their part. Besides the concerned department, Vigilance Department may also be competent to initiate such action. |
|--|---|

5. Suspension of Business Dealings

- | | |
|-----|--|
| 5.1 | If the conduct of any Agency dealing with MDL is under investigation by any department, the Competent Authority may consider whether the allegations under investigation are of a serious nature and whether pending investigation, it would be advisable to continue business dealing with the Agency. If the Competent Authority, after consideration of the matter including the recommendation of the Investigating Department, if any, decides that it would not be in the interest to continue business dealings pending investigation, it may suspend business dealings with the Agency. The order to this effect may indicate a brief of the charges under investigation. If it is decided that inter-connected Agencies would also come within the ambit of the order of suspension, the same should be specifically stated in the order. The order of suspension would operate for a period not more than six months and may be communicated to the Agency as also to the Investigating Department. The Investigating Department may ensure that their investigation is completed and whole process of final order is over within such period. |
| 5.2 | The order of suspension shall be communicated to all Commercial Departmental Heads. During the period of suspension, no business dealing may be held with the Agency. |
| 5.3 | As far as possible, the existing contract(s) with the Agency may continue unless the Competent Authority, having regard to the circumstances of the case, decides otherwise. |
| 5.4 | If the gravity of the misconduct under investigation is very serious and it would not be in the interest of MDL, as a whole, to deal with such an Agency pending investigation, the Competent Authority may order suspension of business dealing with Agency and send his recommendation to Chief Vigilance Officer (CVO), MDL along with the material available, copy of which may be issued to the Agency concerned with intimation to CVO MDL. Such an order would operate for a period of six months from the date of issue. |



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- | | |
|-----|---|
| 5.5 | If the Agency concerned asks for detailed reasons of suspension, the Agency may be informed that its conduct is under investigation. It is not necessary to enter into correspondence or argument with the Agency at this stage. |
| 5.6 | It is not necessary to give any show-cause notice or personal hearing to the Agency before issuing the order of suspension. However, if investigations are not complete in six months' time, the Competent Authority may extend the period of suspension by another three months, during which period the investigations must be completed. |

6. Ground on which Banning of Business Dealings can be initiated

- | | |
|------|---|
| 6.1 | If the security consideration, including questions of loyalty of the Agency to the State, so warrants; |
| 6.2 | If the Director / Owner of the Agency, proprietor or partner of the firm, is convicted by a Court of Law for offences involving moral turpitude in relation to its business dealings with the Government or any other public sector enterprises or MDL, during the last five years; |
| 6.3 | If there is strong justification for believing that the Directors, Proprietors, Partners, owner of the Agency have been guilty of malpractices such as bribery, corruption, fraud, substitution of tenders, interpolations, etc; |
| 6.4 | If the Agency continuously refuses to return / refund the dues of MDL without showing adequate reason and this is not due to any reasonable dispute which would attract proceedings in arbitration or Court of Law; |
| 6.5 | If the Agency employs a public servant dismissed / removed or employs a person convicted for an offence involving corruption or abetment of such offence; |
| 6.6 | If business dealings with the Agency have been banned/blacklisted by Government Agencies/ Statutory bodies, DGQA, Defence Shipyards, DPSUs or with whom commercial transactions have been suspended for sufficient and justifiable reasons. |
| | If the Agency having same promoters/Directors /Partners as the barred/blacklisted Company as at 6.6 above for the duration for which the barring/ blacklisting of sister concern persists. |
| 6.7 | If the Agency has resorted to Corrupt, fraudulent practices including misrepresentation of facts;
If the agency who had fraudulently dealt with the Company for pecuniary gains or had connived with dealing officers for mutual benefit. |
| 6.8 | If the Agency uses intimidation / threatening or brings undue outside pressure on the MDL or its official in acceptance / performances of the job under the contract; |
| 6.9 | If the Agency indulges in repeated and / or deliberate use of delay tactics in complying with contractual stipulations; |
| 6.10 | Wilful indulgence by the Agency in supplying sub-standard material irrespective of whether pre-dispatch inspection was carried out by MDL or not; |
| 6.11 | Based on the findings of the investigation report of CBI / Police against the Agency for malafide / unlawful acts or improper conduct on his part in matters relating to the MDL or even otherwise; |
| 6.12 | Established litigant nature of the Agency to derive undue benefit; |
| 6.13 | Continued poor performance of the Agency in several contracts; |
| 6.14 | If the Agency misuses the premises or facilities of the MDL, forcefully occupies, tampers or damages the Company's properties including land, water resources, forests / trees, etc.
If the Agency who knowingly collude to defeat competition with the aim of deriving undeserved profit or gain from doing business with MDL.
(Note: The examples given above are only illustrative and not exhaustive. The Competent Authority may decide to ban business dealing for any good and sufficient reason). |

7. Banning of Business Dealings

- | | |
|-----|---|
| 7.1 | Decision to ban business dealings with any Agency would apply throughout the Company. |
| 7.2 | There will be a Standing Committee to be appointed by the CMD which may include HOD of respective Commercial Section/Capital Works/OTS, HOD (M), rep of Legal Dept. and OIC (SR&R) for processing the cases of "Banning of Business Dealings". The functions of the |



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	committee shall, inter-alia include:
i)	To study the report of the Investigating Agency and decide if a prima-facie case for banning exists, if not, send back the case to the Competent Authority.
ii)	To recommend for issue of show-cause notice to the Agency by the concerned department.
iii)	To examine the reply to show-cause notice and call the Agency for personal hearing, if required.
iv)	To submit final recommendation to the Competent Authority for banning or otherwise.
7.3	If the Competent Authority is prima-facie of view that action for banning business dealings with the Agency is called for, a show-cause notice may be issued to the Agency as per paragraph 9.1 and an enquiry held accordingly.

8 Removal from List of Approved Agencies - Suppliers / Contractors, etc.

8.1	If the Competent Authority decides that the charge against the Agency is of a minor nature, it may issue a show-cause notice as to why the name of the Agency should not be removed from the list of approved Agencies - Suppliers / Contractors, etc.
8.2	The effect of such an order would be that the Agency would not be disqualified from competing in Open Tender Enquiries but LTE may not be given to the Agency concerned.
8.3	Past performance of the Agency may be taken into account while processing for approval of the Competent Authority for awarding the contract.

9. Show-cause Notice

9.1	In case where the Competent Authority decides that action against an Agency is called for, a show-cause notice has to be issued to the Agency. Statement containing the imputation of misconduct or misbehavior may be appended to the show-cause notice and the Agency should be asked to submit within 15 days a written statement in its defence.
9.2	If the Agency requests for inspection of any relevant document in possession of MDL, necessary facility for inspection of documents may be provided.
9.3	The Competent Authority may consider and pass an appropriate speaking order:
a)	For exonerating the Agency if the charges are not established;
b)	For removing the Agency from the list of approved Suppliers / Contractors, etc.
c)	For banning the business dealing with the Agency.
9.4	If it decides to ban business dealings, the period for which the ban would be operative may be mentioned. The order may also mention that the ban would extend to the interconnected Agencies of the Agency.

10. Appeal against the Decision of the Competent Authority

10.1	The Agency may file an appeal against the order of the Competent Authority banning business dealing, etc. The appeal shall lie to Appellate Authority. Such an appeal shall be preferred within one month from the date of receipt of the order banning business dealing, etc.
10.2	Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority.

11. Review of the Decision by the Competent Authority

	Any petition / application filed by the Agency concerning the review of the banning order passed originally by Competent Authority under the existing guidelines either before or after filing of appeal before the Appellate Authority or after disposal of appeal by the Appellate Authority, the review petition can be decided by the Appellate Authority upon disclosure of new facts / circumstances or subsequent development necessitating such review. The Competent Authority may refer the same petition to the separate Standing Committee which may be constituted by Appellate Authority for examination and recommendation.
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12. Circulation of the names of Agencies with whom Business Dealings have been banned

12.1	Depending upon the gravity of misconduct established, the Competent Authority may direct HOD (Materials)/OIC (SR&R) to circulate the names of Agency with whom business dealings
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	have been banned, to the Government Departments, other Public Sector Enterprises, etc. for such action as they deem appropriate.
12.2	If Government Departments or a Public Sector Enterprise request for more information about the Agency with whom business dealings have been banned, a copy of the report of Inquiring Authority together with a copy of the order of the Competent Authority / Appellate Authority may be supplied.
12.3	If business dealings with any Agency have been banned by the Central or State Government or any other Public Sector Enterprise, MDL may, without any further enquiry or investigation, issue an order banning business dealing with the Agency and its inter-connected Agencies.



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Performance Security (PS) Bank Guarantee Format

(ILLUSTRATIVE FORMAT)

(On Non-Judicial stamp paper of value Rs. 500/-. However, the value of stamp paper to be confirmed from Legal Department, MDL.)

IN CONSIDERATION OF MAZAGON DOCK SHIPBUILDERS LIMITED, a company incorporated under the Companies Act 1956 and having its registered office at Dockyard Road, Mumbai 400010 (hereinafter referred to as the "the Purchaser" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) having placed an order on Messers a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at (hereinafter called " the Contractor/ Supplier" which expression shall, unless it be repugnant or contrary to the subject or context thereof, be deemed to mean and include its successors and assigns) vide order No..... dated..... (hereinafter called "the order" which expression shall include any amendments/alterations to "the order" issued by "the Purchaser") for the supply , delivery at site, installation and commissioning of certain equipment, item/services/civil works etc. as stated in the said Order and the Purchaser having agreed with the Contractor/Supplier to accept a Bank Guarantee in lieu of Performance Security payable under the said order for the fulfillment and performance of the said order, We, Bank having office at (hereinafter referred to as "the Bank" which expression shall include its successors and assigns) hereby agree to pay to the Purchaser without any demur on first demand an amount not exceeding Rs..... (Rupees.....only) being 5% (10% in case of Capital Procurement) of the order value against any loss or damage, costs, charges and expenses caused to or suffered by the Purchaser by reason of non performance and non-fulfillment or for any breach on the part of the Contractor / Supplier of any of the terms and conditions of the said order.

2. We, Bank further agree that the Purchaser shall be sole judge whether the said Contractor/Supplier has failed to perform or fulfil the said order in terms thereof or committed breach of any terms and conditions of the order and the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by the Purchaser on account thereof and we waive in the favour of the Purchaser all the rights and defences to which we as guarantors may be entitled to.

3. We, Bank further agree that the amount demanded by the Purchaser as such shall be final and binding on the Bank as to the Bank 's liability to pay and the amount demanded and the Bank undertake to pay the Purchaser the amount so demanded on first demand and without any demur notwithstanding any dispute raised by the Contractor/Supplier or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this guarantee being absolute and unconditional.

4. We, Bank further agree with the Purchaser that the Purchaser shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said order/or to extend time of performance by the Supplier from time to time or to postpone for any time to time any of the powers exercisable by the Purchaser against the Contractor/ Supplier and to forbear to enforce any of the terms and conditions relating to the order and we shall not be relieved from our liability by reason of any such variation or extension being granted to the Contractor/ Supplier or for any forbearance, act or omission on the part of the Purchaser or any indulgence by the Purchaser to the Contractor/Supplier or by any such matter or things whatsoever which under the law relating to sureties would have the effect of relieving us.

5. We, Bank further undertake not to revoke this guarantee during its currency except with the previous consent of the Purchaser in writing.

6. We, Bank also agree that the Bank's liability under this guarantee shall not be affected by any change in the constitution of the Contractor / Supplier or dissolution or winding up of the business of the contractor/ supplier.

7. Notwithstanding anything contained herein above:

i) Our liability under this guarantee shall not exceed Rs.....



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ii) This Bank Guarantee shall be valid upto and including; and

iii) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before(validity + 60 days from the date of expiry of this guarantee).

8. This Guarantee shall be governed by Indian laws and the Courts at Mumbai, India shall have the exclusive jurisdiction.

IN WITNESS WHEREOF the Bank has executed this document on this.....day of
.....

For Bank
(by its constituted attorney)

(Signature of a person authorised
to sign on behalf of "the Bank")



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We hereby declare that the particulars given above are correct and complete. If the transaction is delayed for reasons of incomplete or incorrect information, we would not hold MDL responsible.

Date: **Supplier's Seal:** **Authorized Signature of the Supplier:**

Certified that the particulars as per Serial Numbers 2, 7 to 11 are correct as per our records.

Date: **Bank's Stamp** **Authorized Signature of the Officer of the Bank.**

Note: Based on the Illustrative Format as above, the concerned Dealing Officer / HOD(C) may formulate / design the required forms / documents / tender enquiries / registers / STACS / proformas to suit to the requirements on case to case basis in line with the corresponding articles in Purchase Manual Volume-I.



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Details for Remittance towards EMD/PS

1. **MDL'S BANK ACCOUNT DETAILS:**

NAME OF BANK A/C HOLDER: **MAZAGON DOCK SHIPBUILDERS LTD**
BANK AND BRANCH : **STATE BANK OF INDIA, COMMERCIAL BRANCH, FORT, MUMBAI-400023**
TYPE OF ACCOUNT : **CURRENT**
BANK ACCOUNT NO : **11079519138**
IFSC CODE : **SBIN0006070**
SWIFT CODE : **SBININBB101**

2. **DETAILS OF REMITTANCE TO MDL'S BANK ACCOUNT:**

(To be filled in by the vendors/firms making remittance of funds in MDL'S Bank Account)

Date of Remittance	Name of Firm	Vendor Code	MDL tender/ PO. Ref No.	Nature of Remittance viz. EMD/PS etc.	Amount Remitted (₹)

Signature of Vendor/Representative

3. **SAP Parked Document No:** _____ **Date:** _____

(To be filled in by MDL's Commercial Executive)

Sr. No.2 and 3 above will be filled in by the Vendor and MDL commercial Executive respectively and the form forwarded to Treasury Section for posting of SAP Document to the respective Bank Account



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Official Secret Act 1923 (ILLUSTRATIVE FORMAT)

SECTION 2(B) : "PROHIBITED PLACE"

It is defined as the place of any work of Defence Dockyard and other so belonging or occupied and used for the purpose of building, repairing, making or storing any ammunitions of war.

For the purpose of the above definition, sketch includes any photograph or other mode of representing any place or thing.

SECTION 3 : "PENALTIES FOR SPYING"

If any per unlawfully -

- a) approaches, inspects, passes over or is in the vicinity of any clear place; or
- b) make any sketches intended to be directly or indirectly useful to an enemy ; or
- c) obtains, collects, records or communicates to any other person any secret official code.

Shall be liable for imprisonment of 14 years in case of Defence Installation.

SECTION 4 : "COMMUNICATION WITH FOREIGN AGENTS"

If Any person has been in communication with or attempted to communicate with foreign agents regarding the vital information of any "PROHIBITED PLACE" would be guilty of violating the provisions of this Act.

SECTION 5 : "WRONGFUL COMMUNICATION OF INFORMATION"

If any person having in his possession or control any official document;

- a) Willfully communicates to any person, other than a person, who is authorised to communicate it.
- b) Used the information in his possession for the benefit of any foreign power.
- c) Retain in his possession when he has no power to retain it
- d) Fails to take reasonable care of it.

Shall be guilty of an offence under this Act.

SECTION 6 : "UNAUTHORISED USE OF UNIFORMS"

If any person for the purpose of gaining admission or of assisting any other person to gain admission to a "PROHIBITED PLACE" wears uniforms without lawful authority shall be guilty of offence under this Section.

SECTION 7 : "INTERFERING WITH OFFICERS OF POLICE"

No person in the vicinity of any "PROHIBITED PLACE" shall abstract any Police Officer engaged on guard, sentry or similar duty. If any person move in the provisions of this section, shall be punishable with imprisonment, which may extend up to 3 years.

SECTION 8 : "DUTY OF GIVING INFORMATION"

It shall be duty of every person to give on demand to a superintendent of Police or any other Police Officer not below the rank of Inspector, any information in his power relating to an offence under this Act.

If any person fails to give such information, shall be punishable with imprisonment to 3 years or fine or with both.

SECTION 9 : "INCITEMENT"

Any person who attempts to commit or debate the commission of an offence under this Act shall be punishable with the same punishment and be liable to be proceeded against in the same manner as if he had committed such offence.

SECTION 10 : "PENALTY FOR HARBOURING SPIES"

If any person whom he knows or has reasonable grounds for supposing to be person who is about to commit or who has committed offence under this Act shall be guilty of offence under this Section.

SECTION 11 : "SEARCH WARRANTS"



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If a presidency Magistrate, Magistrate First Class or Sub-Divisional magistrate is satisfied with the information that there is reasonable ground for suspecting that an offence under this Act has been or is about to be committed, he may grant search warrant to any Police Officer to enter at any time any premises to force to search premises or the places.

Note: Based on the Illustrative Format as above, the concerned Dealing Officer / HOD(C) may formulate / design the required forms / documents / tender enquiries / registers / STACS / proformas to suit to the requirements on case to case basis in line with the corresponding articles in Purchase Manual Volume-I.



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Format for Compliance Certificate w.r.t. Land Border Clause

Declaration of Compliance of Order (Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General Conditions, Definitions, Govt Directives applicable in respect of Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 and OM No F.7/10/2021/-PPD(1) dated 23.02.2023 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017& prescribed tender conditions).

DECLARATION BY AUTHORISED SIGNATORY OF THE FIRM

I, the undersigned, (full names),
 do hereby declare, in my capacity as

 of M/s(name of bidder entity), that:

- 1) The facts contained herein are within my own personal knowledge.
- 2) I have read the Order (Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 and OM No F.7/10/2021/-PPD(1) dated 23.02.2023 on the subject of Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 regarding restrictions on procurement from a bidder of a country which shares a land border with India and comply to all the provisions of the Order
- 3) I certify that M/s(name of bidder entity) **is not from such a country or, is from such a country** (strike out whichever is not applicable). I hereby certify that this SUPPLIER fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority is attached]
- 4) I understand that the submission of incorrect data and / or if certificate / declaration given by M/s(name of bidder entity) is found to be false, this would be a ground for immediate termination and further legal action in accordance with law as per Clause 12 of the Public Order on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

AUTHORISED SIGNATURE: _____ **DATE:** _____

Seal / Stamp of Bidder



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Enclosure-A

DECLARATION CERTIFICATE FOR LOCAL CONTENT **(Tender value Less than Rs 10 Crores)**

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General Conditions, Definitions, Govt. Directives applicable in respect of Local Content & prescribed tender conditions).

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID/ TENDER No: _____

ISSUED BY: Mazagon Dock Shipbuilders Limited

NB: The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

I, the undersigned, (full names),

do hereby declare, in my capacity as of
.....(name of bidder entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have read and understood the requirement of local content (LC) and same is specified as percentage calculated in accordance with the definition provided at clause 2 of revised Public Procurement (preference to Make in India) Order 2017.

“Local content” as per above order means the amount of value added in India which shall be the total value of items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value in percent.”

(c) I have satisfied myself that the goods/services/works to be delivered in terms of the above specified bid comply with the local content requirements as specified in the tender for ‘Class-I Local Supplier’ / ‘Class-II Local Supplier’, and as above.

(d) I understand that a bidder can seek benefit either Public Procurement Policy for MSEs –Order 2012 or Public Procurement (preference to Make in India) Order 2017 and/or both and once the option is declared / selected it is not permitted to be modified subsequently. Accordingly, I seek the benefit from the below declared purchase preference policy.



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i. I seek benefits against the following policy:

1) PPP MSE Order 2012 (Applicable for MSE manufacturers)

2) PPP MII 2017 (Applicable for Class I suppliers as well as MSE manufacturers)

(Note: If not declared / selected is shall be deemed that Purchase Preference benefit is sought under PPP MII 2017 policy.)

(e) The local content calculated using the definition given above are as under:

Tender Item Sr. No	Local content calculated as above %	Location of local value addition (Location shall be the specified as name of city or district, etc.)

Attach separate sheet duly signed if the space not sufficient.

Note 1: Local content percentage shall be declared item wise or tender wise strictly as per the terms of the tender.

Note 2: The Actual Local Content Certificate (to be provided at the time of PO placement), shall be mandatorily submitted by the successful bidder post execution of PO.

(f) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. In case of contract being awarded, I undertake to retain the relevant documents for 7 years from date of execution.

(g) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020.

SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder



Tender Enquiry

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Enclosure-B

DECLARATION CERTIFICATE FOR LOCAL CONTENT **(Tender value More than Rs 10 Crores)**

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General Conditions, Definitions, Govt. Directives applicable in respect of Local Content & prescribed tender conditions).

THE BIDDERS SHALL PROVIDE THIS CERTIFICATE FROM STATUTORY AUDITOR OR COST AUDITOR OF THE COMPANY (IN CASE OF COMPANIES) OR FROM A PRACTICING COST ACCOUNTANT OR PRACTICNG CHARTED ACCOUNTANT (IN RESPECT OF SUPPLIER OTHER THAN COMPANIES) GIVING THE PERCENTAGE OF LOCAL CONTENT.

IN RESPECT OF BID/ TENDER No: _____

ISSUED BY: Mazagon Dock Shipbuilders Limited

NB: The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

I, the undersigned, (full names),

do hereby declare, in my capacity as of
.....(name of bidder entity), the
following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have read and understood the requirement of local content (LC) and same is specified as percentage calculated in accordance with the definition provided at clause 2 of revised Public Procurement (preference to Make in India) Order 2017.

“Local content” as per above order means the amount of value added in India which shall be the total value of items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value in percent.”

(c) I have satisfied myself that the goods/services/works to be delivered in terms of the above specified bid comply with the local content requirements as specified in the tender for ‘Class-I Local Supplier’ / ‘Class-II Local Supplier’, and as above.

(d) I understand that a bidder can seek benefit either Public Procurement Policy for MSEs –Order 2012 or Public Procurement (preference to Make in India) Order 2017 and/or both and once the option is declared / selected it is not permitted to be modified subsequently. Accordingly, I seek the benefit from the below declared purchase preference policy.



Tender Enquiry

Enclosure to Tender Enquiry: Part 'A': Tender Terms and Conditions
Tender No. 1700000552
Item: Auto Transfer Switch (ATS)
Project: P17A
Type of tender: Limited Tender Enquiry for Indian Bidders in Two Bid System

ii. I seek benefits against the following policy:

1) PPP MSE Order 2012 (Applicable for MSE manufacturers)

2) PPP MII 2017 (Applicable for Class I suppliers as well as MSE manufacturers)

(Note: If not declared / selected is shall be deemed that Purchase Preference benefit is sought under PPP MII 2017 policy.)

(e) The local content calculated using the definition given above are as under:

Tender Item Sr. No	Local content calculated as above %	Location of local value addition (Location shall be the specified as name of city or district, etc.)

Attach separate sheet duly signed if the space not sufficient.

Note 1: Local content percentage shall be declared item wise or tender wise strictly as per the terms of the tender.

Note 2: The Actual Local Content Certificate (to be provided at the time of PO placement), shall be mandatorily submitted by the successful bidder post execution of PO.

(f) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. In case of contract being awarded, I undertake to retain the relevant documents for 7 years from date of execution.

(g) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020.

SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidder