

DETAILS OF ACCEPTANCE OF NECESSITY (AoN) FOR ACQUISITION
06 X 500T SP WATER BARGE

1. Acceptance of Necessity (AoN) has been accorded for acquisition of 06 x 500T SP Water Barge on 24 Mar 25. The approved acquisition scheme is related to construction of 06 x 500T SP Water Barge for which RFP would be issued shortly (under Buy (Indian-IDDM) with minimum 50% Indigenous Content (IC) in accordance with Section 'B', Chapter XII of DAP 2020). Vendors desirous of participating in the approved acquisition scheme related to procurement of 06 x 500T SP Water Barge are required to submit their willingness.
2. Technical Specifications of the project are placed at **Appendix 'A'**.
3. The willingness should be dispatched to the following:-

Cmde (Ship Production)
Directorate of Ship Production
Naval Headquarters, Ministry of Defence
Room No. E-201, 2nd Floor
East Wing, Nausena Bhawan
Delhi Cantt, New Delhi 110010
Tele: 011-20896998
E-mail: dsp@navy.gov.in

**TECHNICAL SPECIFICATIONS FOR CONSTRUCTION OF
06 X 500T SP WATER BARGE**

| <u>SECTION A - GENERAL</u> | | |
|-----------------------------------|------------------------|---|
| 1. | Aim | To lay down the staff requirements for 500 T Self Propelled Water Barge capable of replenishing water for ships and submarines in harbour (alongside) and at anchorage. |
| 2. | Functions | Provide freshwater to ships and submarines in harbour and at anchorage. |
| 3. | General Remarks | <p>(a) The barge is to be built as per IHQ MoD (N) approved Classification Society Standards (ABS/BV/DNV-GL/IRS/LR/RINA/ClassNK). The notation for the barge and QAP for shipbuilding, including trials, should be finalised in consultation with IHQ MoD (N). Classification Society is to certify that the Class notation proposed by the yard covers all the requirements of build specs/ guideline specifications.</p> <p>(b) A certificate is to be provided by the Classification Society confirming that 'Class Notations have been provided for all functional requirements indicated in RFP'.</p> <p>(c) The barge should have the capability of quick turn around (that is rapid replenishment of her tanks, for the next tasking).</p> <p>(d) The barge should be capable of supplying light stores to the ships. The barge should be capable of carrying light stores upto five Tons.</p> <p>(e) The barge should have an expected life of 20 years.</p> <p>(f) The barge should comply with all the latest requirements of MARPOL/ MEPC and SOLAS regulations.</p> <p>(g) Separate Feed Water and Fresh Water pumps are to be provided for embarkation/ disembarkation with 100% redundancy to make the barge self-sufficient.</p> <p>(h) The barge should have configuration of tanks with variable capacity as per the design/ hull form.</p> <p>(j) The barge should have flexibility to utilise tanks in various configuration to accommodate fresh and feed water as per requirement.</p> |

| | | |
|--------------------------------------|---------------------------------|--|
| | | (k) The main and auxiliary machinery of the barge should permit a continuous operation of 48 hrs. |
| 4. | Speed | (a) Maximum speed of 12 Kn upto 85% MCR. (b) Sustained : 10 Kn |
| 5. | Dimensions | The principal dimensions of the barge should be as per the design approved by the Classification Society rules. Beam not less than 8m and Draught not more than 4m. |
| 6. | Endurance | 150 Nm @ sustained speed of 10 Kn. |
| 7. | Sea State | Should be able to operate up to Sea State 4 and survive upto sea state 5. |
| 8. | Crew | Crew has to be maintained to 11 as per Standard Manning Plan. |
| 9. | Environmental Conditions | <p>All equipment should be marinised and capable of performing under the following ambient conditions:-</p> <p>(a) Ambient Air Temperature - up to 45 °C</p> <p>(b) Average machinery Space Temperature - up to 55 ° C</p> <p>(c) Sea Water Temperature - up to 40° C</p> <p>(d) Relative Humidity condensation at 35 ° C - 100% Condensation at 35 °C</p> <p>(e) The Marinised Package AC is to be designed to perform at rated conditions under the environmental conditions specified at (a) - (d) above.</p> <p>(f) All machinery, its sub-assemblies and control systems should be able to perform continuous operation with machinery compartment conditions as follows:-</p> <p style="text-align: right;">Normal Operating Temperature - Upto 55°C</p> |
| <u>SECTION B - NAVIGATION</u> | | |
| 10. | Bridge | Bridge should have large inclining windows for all around visibility to assist manoeuvring alongside. All front windows should have Clear View screen mechanism and other windows should have either Clear View Screen mechanism or marinised Window Wipers. |
| 11. | Magnetic Compass | One Class approved magnetic compass is to be provided on the bridge. In addition, one boat compass to be provided. |
| 12. | Navigational Equipment | Following Class approved Navigational aids to be provided:- |

| | | |
|--|----------------------------|--|
| | | (a) Two GPS (b) One AIS (c) One Nav Radar |
| 13. | Echo Sounder | One Class approved Echo Sounder with interface printer to be provided. |
| 14. | Fog Horn | Two Class approved electric fog horns are to be provided on top of the wheel house with local operating controls and provision for remote operations from the bridge. |
| 15. | Electric Horn | Class approved Electric Horn to be positioned, with operating controls on the Bridge. |
| 16. | Nav Light | As per International Regulation for Prevention of Collision at Sea (IRPCS) - 1972. Battery and backup supply is to be provided for the navigation lights. |
| <u>SECTION C - COMMUNICATION</u> | | |
| 17. | Communication | Following Class approved communication facilities are to be provided:- <ul style="list-style-type: none"> (a) VHF MMB Tx/Rx with DSC - Two (b) VHF hand held Radio sets - Five MOTOTRBO XIRP8668i (c) SART TBR - 600 - One (OEM M/s Thrane & Thrane) (d) EPIRB 406 MHZ - One (OEM M/s Thrane & Thrane) (e) Megaphone - Two (one at Bridge top and one on the mast) (f) 5" Hand signaling Lantern - One with stowage box (g) Portable loud hailers - Two (h) Call up bells - As Req. (j) Sound power telephone - As Req. (k) Class approved Internal Communication System - One |
| <u>SECTION D – HULL, MACHINERY FIRE FIGHTING AND DAMAGE CONTROL</u> | | |
| 18. | Build Specification | The barge should be built to IHQ MoD (N) approved classification society standards (ABS/BV/DNV- |

| | | |
|-----|----------------------------|--|
| | | GL/IRS/LR/RINA/ Class NK). The Seller is to provide a certificate from the nominated Class Society that the barge has been built to approved Class Notations and the vessel (design and build) complies with all aspects of the Built Specifications. The Seller shall therefore share a copy of GLS/ Build Specifications with the nominated Class society and finalize the contract with Class accordingly. All Hull equipment being procured to meet the relevant specifications under inspection/ certification by Classification Society. |
| 19. | Hull Material | The barge is to be built of Class approved steel suitable for the type and function of barge. |
| 20. | Stability | Should be designed to have intact and damaged stability as per the Classification Society Rules. |
| 21. | U/W Hull Protection | Cathodic Protection through Sacrificial Anodes is to be provided. |
| 22. | Paint Scheme | Suitable Class approved Marine grade paint scheme is to be applied on surfaces. Surface preparation, paint application, curing time etc. are to be ensure to the satisfaction of paint OEM and Classification Society. Navy Order 53/16 regarding paint scheme is required to be followed. |
| 23. | Deck covering | Suitable Class approved Epoxy Deck covering is to be applied in the relevant internal compartments (wet spaces, main alleyways, crew compartments and bridge. |
| 24. | Mast | A motorized foldable fixed mast to carry navigational lights, antenna and flags is to be provided. |
| 25. | Capacities | <p>(a) Water (cargo) - 500 Ton (including fresh & feed water)</p> <p>(b) Fuel Oil (propulsion) - As per endurance + 25% reserve</p> <p>(c) Domestic Fresh Water - 4.5 to 5.5 Ton</p> <p>(d) Lub Oil - As per endurance + 25% reserve</p> <p>* Minimum of 10 Tanks having capacity of 50T each is required to be included in the vessel design.</p> |

| | | |
|-----|---|---|
| 26. | Main Auxiliary Machinery | <p>(a) Propulsion package and auxiliary machinery having indigenous product support to be provided as approved by Classification Society. Main Engine to be selected as per build Specifications, to meet the speed requirement. Suitable rated indigenous Main Engine and Diesel Generators compliant to latest IMO/ MARPOL standards and as per class to be provided. No acoustic enclosures are necessary for DA.</p> <p>(b) Twin shaft propulsion system, with one diesel engine, reverse reduction gear box and fixed pitch propeller, per shaft. The propellers are to be out board rotating when the vessel is proceeding ahead.</p> <p>(c) Main and Auxiliary machinery as required, and should be capable of unrestricted operation under the following environmental conditions :-</p> <p style="padding-left: 40px;">(i) Ambient air temperature : up to 45 °C</p> <p style="padding-left: 40px;">(ii) Sea water temperature : up to 35 °C</p> <p style="padding-left: 40px;">(iii) Maximum temperature : up to 55 °C in engine room (for Control and monitoring system only)</p> <p style="padding-left: 40px;">(iv) Relative humidity : 95 % Condensation (for Control and monitoring system only) at 35 °C</p> <p>(d) Engine controls to be as per class specifications requirements.</p> <p>(e) Main and Auxiliary Machinery are to be mounted on suitable AV mounts approved by Classifications Society meeting all technical requirements. Bellows/ compensators to be provided as per Classification Society Rules.</p> <p>(f) The pumping rate for the fresh water should be 40 TPH variable to 60 TPH. A VFD centrifugal pump, meeting Class requirements be provided to cater the supply of FW for smaller and larger vessels.</p> <p>(g) Main and Auxiliary machinery of adequate capacities meeting all technical requirements as per Classification Society are to be provided. These include the following:-</p> |
|-----|---|---|

| | | |
|--|--|---|
| | | <p>(i) Diesel Alternators (DA) of adequate capacity. Suitably related Diesel Generators, conforming to latest Classification Society rules/ specifications and suitable for marine use for providing supply to various onboard consumers is to be provided. The quantity and rating of the DA should be in accordance with the load requirements of various consumers, catering for adequate levels of redundancies stipulated as per Class regulations for the vessels. The DG shall be self-regulated and self-excited. The maximum permissible loading of DGs as a percentage of the rated capacity and suitable growth margins as per class regulations should be considered while determining the DG capacity. An electrical load analysis chart justifying the proposed capacities of the DGs shall be prepared by the builder and approved by the Class authority during design and construction stages of the vessel.</p> <p>(ii) Emergency DA of adequate capacity. The capacity of EDA shall be such that it meets the emergency loads requirements of critical consumers onboard as per Classification society rules.</p> <p>(iii) Marinised AC Plants of adequate capacity.</p> <p>(iv) Air compressors of adequate capacity depending on the consumer requirement meeting Classification Society Requirements.</p> <p>(v) Fuel and oil centrifuges of adequate capacity.</p> <p>(vi) Fuel transfer pumps of adequate capacity.</p> <p>(vii) Lub oil transfer pumps of adequate capacity meeting.</p> <p>(viii) Lub oil stripping pumps (both fixed and portable) of adequate capacity.</p> <p>(ix) Bilge pumps of adequate capacity.</p> <p>(x) Firemain Pump of adequate capacity.</p> <p>(xi) General Service Sea Water Pump of adequate capacity.</p> <p>(xii) Tank Content Gauges.</p> <p>(xiii) Semi Rotary Hand Pump of adequate capacity.</p> |
|--|--|---|

| | | |
|--------------------------------------|---|---|
| | | <p>(h) <u>Gear Box</u>. Reduction gear box of suitable reduction ratio are to be provided as per Classification Society rules.</p> <p>(j) <u>Steering Gear</u>. Steering gear should be Electro Hydraulic as per Classification Society norms.</p> <p>(k) Adequate maintenance envelope to be provided for each engineering equipment/ system meeting Classification Society Requirements.</p> <p>(l) Press fit/ Weld less pipes and flangeless couplings with front and back connect is to be used for domestic fresh water, chilled water and auxiliary sea water cooling system including bilge system.</p> <p>(m) Machinery compartment bilges are to be easily accessible and provided with bilge wells and limber holes.</p> <p>(n) Fuel specification is to be as per HFHSD meeting IS 1460:2000.</p> <p>(p) Material specification of the ship system is to be as per Classification Society Rules.</p> <p>(q) Suitable hot lagging to be provided for all hot sections of equipment/ systems so that the lagging surface temperature does not exceed 35 °C.</p> <p>(r) Flow meter in suction and discharge line of cargo pump meeting Classification Society requirements.</p> |
| <u>SECTION E - ELECTRICAL</u> | | |
| 27. | Power Generation and Distribution System | <p>The following electrical equipment and fittings are to be provided:-</p> <p>(a) <u>Generators</u>. DGs of suitable capacity with to meet the electrical load under various conditions, are to be catered. The DG is to be chosen from the standard range of approved DGs as approved by the Classification Society Rules. The alternator should conform to latest classifications society rules/ specifications and standards for marine use. Suitably related Diesel Generators, conforming to latest Classification Society rules/ specifications and suitable for marine use for providing supply to various onboard consumers is to be provided. The quantity and rating of the DA should be in accordance with the load requirements of various consumers, catering for adequate levels of redundancies stipulated as per Class regulations for the vessels. The DG shall be self-</p> |

| | | |
|--|--|---|
| | | <p>regulated and self-excited. The maximum permissible loading of DGs as a percentage of the rated capacity and suitable growth margins as per class regulations should be considered while determining the DG capacity. An electrical load analysis chart justifying the proposed capacities of the DGs shall be prepared by the builder and approved by the Class authority during design and construction stages of the vessel.</p> <p>(b) <u>Power Supply.</u> Suitably rated power supplies conforming to latest Classification Society regulations according to the load requirements of the craft (and load chart calculations), with adequate levels of redundancies as per Class Specifications is to be provided. 230 V AC, 50 Hz, 1 Phase, 4 wire supply system derived from the primary supply, (obtained through secondary star connected transformer) with earthing of neutral to vessel's hull for domestic and COTS equipment is to be provided.</p> <p>(c) <u>Lighting.</u> The following general lighting and fittings are to be provided :-</p> <ul style="list-style-type: none"> (i) The Barge's lighting supply would be 230V,50Hz, 1Ph and the entire vessel would be fitted with LED light fittings conforming to latest Classifications Society rules/specifications and standards for marine use. (ii) Navigation lights should conform to latest Classification Society regulations. (iii) Adequate number of flood lights of 200 watts are to be provided at suitable positions, duly complying to Class Specifications. (iv) Emergency lights fittings of 24 V complying to Class Specifications are to be supplied in each compartment. (v) Adequate number of hand held lamps with suitable length of flexible cable complying to Class Specifications to be provided. <p>(d) <u>Main Switch Board.</u> The Main Switch Board/ Distribution Panels should conform to Class Specifications.</p> <p>(e) <u>Shore Supply Arrangements.</u> A water tight shore supply connection box (with enclosure protection IP 57 or higher) of suitable rating conforming to latest</p> |
|--|--|---|

| | | |
|--|--|--|
| | | <p>Classifications society rules/ specifications and standards for marine use should be fitted.</p> <p>(f) <u>Batteries.</u> Adequate number of maintenance free batteries of contemporary technology, with suitable charging arrangement conforming to Classification Society rules are to be provided. Adequate number of maintenance free batteries of contemporary technology, with suitable charging arrangement conforming to classification society rules for marine use are to be provided. The batteries are required to cater for emergency/ back up supplies onboard for critical consumers and should be of a suitable capacity to withstand high starting current, in case envisaged to be used for high cranking applications. All norms pertaining to the batteries should be as per Classification Society rules.</p> <p>(g) <u>Motors, Starters and Control Panels.</u> All motors, starters and control panel should conform to classification rules suitable for marine use and procured from Class approved list of reputed vendors.</p> <p>(h) <u>Cables.</u> Cables for all lighting, power, shore supply and equipment is to be as approved by the Classification Society.</p> <p>(j) <u>Transformers and Rectifiers.</u> Transformers and rectifiers, confirming to Class Specifications.</p> <p>(k) All electrical equipment/ machinery and fittings are to be selected from the standard range and sourced from Class approved list of reputed vendors.</p> <p>(l) All electrical equipment shall be suitable for continuous operation in environmental conditions as follows:-</p> <p>(i) An ambient air temperature of 55°C for machinery / equipment located in all spaces including machinery spaces, galley and weather deck.</p> <p>(ii) Sea Water temperature - 35°C.</p> <p>(iii) Relative humidity - 95% at 35°C.</p> <p>(iv) Electrical cables - Rating of electric cables shall be based on an ambient temperature of 55°C for all spaces.</p> |
|--|--|--|

| | | |
|-----|-----------------------|--|
| | | <p>(v) All the electric equipment shall be capable of continuous operation when fitted at any direction up to an angle of 35 degree from vertical plane passing through the center line of the equipment.</p> <p>(m) <u>Window Wipers.</u> Class approved Window wipers is to be provisioned.</p> <p>(n) <u>Cabin Fan.</u> Class approved Industrial fans with metal casing operating on 230 V AC are to be provided in accommodation spaces, offices and manned stores/ space.</p> <p>(p) <u>HV Mats.</u> Class approved High voltage insulated synthetic mats are to be used in Switchboards, Converter Rooms Equipment Rooms, Battery Compartments.</p> <p>(q) <u>Galley Power Supply Isolating Switch.</u> To ensure safety of galley spaces, galley equipment are required to be controlled by a single isolating switch, which is to be located at a readily accessible position outside the galley, adjacent to the main entrance. The same should be complying to Class Society rules. To ensure safety if galley equipment are required to be controlled by a single isolating switch, which is to be located at a readily accessible position outside the galley, adjacent to the main entrance.</p> |
| 28. | Controls | Use of COTS components in basic machinery control on the bridge is to be provided. |
| 29. | Ventilation | <p>(a) Adequate forced ventilation should be provided in the machinery spaces, accommodation and in the Bridge/wheel house.</p> <p>(b) Engine room to have forced supply and exhaust ventilation.</p> <p>(c) WCs, galleys and showers should have forced exhaust and forced supply. Exhaust is to be of double the capacity of supply related ventilation.</p> |
| 30. | BASCCA (EE) | Provision is to be made for BASCCA (EE) sets for the complete crew along with suitable arrangements. |
| 31. | Portable Pumps | <p>The following portable pumps are to be provided along with suction and discharge hoses and all the other accessories:-</p> <p>(a) 1 X 37 TPH (or higher) DD non-submersible pump be provided.</p> |

| | | |
|--|-------------------------------|--|
| | | (b) 1 X 40 TPH (or higher) and 2 X 20 TPH MD submersible pumps be provided. |
| 32. | Oil Water Separator | One in number oil water separator of suitable and capacity complying with MARPOL requirements, is to be provided. |
| 33. | Sewage Treatment Plant | One IMP/ MARPOL approved electro-catalytic/ biological STP of adequate facility with H ₂ S sensors (MCR and bridge) and sufficient ventilation arrangement of the compartment be provided. |
| 34. | Fire Fighting | <p>The following firefighting appliances should be positioned and are to be procured from vendors approved by Classification Society:-</p> <p>(a) Fire fighting appliances to be provided as per the regulations of Classification Society. Lockers to be provided for stowage of the items.</p> <p>(b) Fixed Fire Fighting systems of Machinery Spaces through Indigenous Fire Fighting System meeting Classification Society Requirements.</p> <p>(c) A fireman ring, below Number 1 deck, with adequate sea water pressure, is to be provided to meet the requirements of fire fighting as per Classification Society Requirements.</p> <p>(d) Portable fire fighting and damage control equipment are to be provided as per Specifications provided by Classification Society.</p> <p>(e) Fire Hydrants are to be of Double Lug meeting Classification Society Requirements.</p> |
| <u>SECTION F - ACCOMMODATION AND HABITABILITY</u> | | |
| 35. | Accommodation | <p>Following accommodation and associated facilities are to be provided:-</p> <p>(a) Two cabins with attached WC and bath are to be provided for the Master and the engineer.</p> <p>(b) One four bunk cabin for engine room crew.</p> <p>(c) One six bunk mess for deck crew.</p> <p>(d) Two sets of Separate WCs and Showers for the crew are to be provided.</p> <p>(e) Split ACs for crew accommodation and wheelhouse.</p> |
| 36. | Galley | (a) A common galley is to be provided for the Master, Engineer and crew of 9 personnel. |

| | | |
|--|--------------------------------|--|
| | | <p>(b) One pantry with serving bay to be provided. A dining hall with seating capacity of 6 personnel to be provided. Separate enclosures for master & engineer and crew to be provided.</p> <p>(c) The galley should be modular and equipped with modern equipment. These should include the following:-</p> <ul style="list-style-type: none"> (i) Electric cooking Range with Two Hot Plates (of 5 kw each) (ii) Oven (of 3 kw) (iii) Frost Free Refrigerator of 350 lts (iv) Electric Kettle (v) Hot Case (vi) Hot water geyser/boiler (vii) Water Cooler with Aquaguard Type Water purification system. (viii) Stainless steel sink with a fresh water nickel silver tap with splash back and drain board. (ix) SS rack type shelves mounted above serving hatch on the bulkhead common with the dining hall. (x) One salt water tap is to be provided 500 mm above the deck, with a sill around, to restrict water splash. <p>(d) One wire mesh locker for storage of potato and onions on upper deck.</p> <p>(e) One provision store room and a stainless steel top table, with a large provision cupboard and metal drawers under.</p> |
| 37. | Medical Facilities | First aid boxes one each in the crew mess, bridge, engine Room and Masters' cabin to be provided. |
| 38. | Recreational facilities | Two smart colour LED TVs (one of the Master / Engineer and the other for the crew) and SRE to be provided. |
| <u>SECTION G - SEAMANSHIP, LIFE SAVING AND SAFETY EQUIPMENT</u> | | |
| 39. | Seamanship Fittings | (a) <u>Anchor and Chain Cable.</u> As per Classification Society Rules. |

| | | |
|---|-----------------------------------|--|
| | | <p>(b) <u>Anchor Windlass.</u> As per Classification Society Rules.</p> <p>(c) <u>Mooring Towing and Berthing Gears.</u> As per Classification Society Rules.</p> <p>(d) <u>Awnings.</u> Awnings for all the exposed decks are to be provided. Arrangements for fitment of stanchions to be accordingly made on deck.</p> <p>(e) <u>Guard Rails.</u> Suitable guard rails for safety of personnel, are to be fitted all around the Yardcraft.</p> |
| 40. | Life Saving | <p>(a) One Gemini (with OBM) with suitable lowering and hoisting arrangements, viz, Electric operated Single Arm Davit of SWL 500 Kgs is to be provided.</p> <p>(b) <u>Life Rafts.</u> 1 x 20 men life rafts.</p> <p>(c) <u>Life Jackets.</u> Life jackets for 100 % crew plus 10%.</p> |
| <u>SECTION H - MISCELLANEOUS</u> | | |
| 41. | Documentation | Complete inventory of spares and the relevant documentation of equipment and machinery to be provided. As fitted drawings, maintenance, repairs and refit documents, Catalogue of spares / D 787 for OBS and B&D inventory and Passports for all the machinery are to be provided, along with the barge. A detailed Engineering Maintenance Schedule (Equipment and Systems) should be prepared and submitted four months prior to commissioning. The final revised Maintenance Schedule is to be available at time of Commissioning of the vessel. The documentation is to be provided in IETM level II format. |
| 42. | Test Equipment | Test equipment iaw Classification Society Rules. |
| 43. | On board and Outfit Spares | The maintenance tools, test equipment and software (as applicable) used for onboard repair/ maintenance would be supplied by the vendor as part of OBS. The OBS supplied must cater for break down maintenance, routines falling due within two years after delivery of the vessel. The OBS has to be recommended based on the likely consumption rate of the spares and on the exploitation pattern of the system/ equipment. The spares are to be supplied in a standard metal boxes, duly preserved for long term duration of at least two years. |
| 44. | AMC | All COTS equipment should be provided with at least five years AMC. |
| 45. | B & D Spares | The vendor should forward recommended list of B&D Spares for the equipment/ system to sustain five years of exploitation. The B&D spares list should comprise of long lead time spares, spares required as insurance spares |

| | | |
|-----|---------------------------------------|---|
| | | and OBS replenishment for a period of five years post commissioning of the vessel. |
| 46. | Life Term Product Support | The shipyard is to submit a scheme to provide product support for a minimum period of 20 years to be reckoned from the date of delivery of the last barge. This could be in the form of a contractual commitment from various equipment suppliers. In case any equipment is likely to become obsolete, the manufacturer should be committed to give a requirement of 'Life Time Buy' of spares. The maker should also ensure the supply of these items prior to discontinuation of the production facilities. |
| 47. | Pest Control | Latest anti-rodent/ anti-cockroach/ anti-flies & mosquito repellant devices to be provided in all accommodation areas, dining halls, galley and store rooms. These compartments should also be provided with anti-rodent paint scheme. |
| 48. | Weather Covers | Two sets of light weight waterproof PVC coated nylon fabric shall be supplied for all weather deck fittings, openings and machinery/ items. |
| 49. | Facilities for Overseeing Team | Necessary furnished air conditioned office space with associated office support arrangements and transport shall be provided to the overseer and representative of the Buyer till completion of all Contractual liabilities/ obligations. |
| 50. | Training | Training is to be imparted to the crew of the Vessel and maintainers, by the OEM/ OEM reps/ seller, for the operation and maintenance of machinery and equipment installed onboard. |
| 51. | Project Monitoring | The latest techniques of Project Monitoring are to be employed by the Seller to ensure phased and planned construction of the Vessel. The plan and progress of the project including all the correspondence, drawings and documents shall be available online for exchange. A comprehensive application for exchange of information with all agencies like IHQ MoD(N), Seller/ Shipyard, Overseeing team, etc., shall be made available by the Seller. |
| 52. | Noise & Vibration | Noise and Vibration standards are to be met as per Classification Society rules and standards. |