



आईएसओ 9001-2015 पत्तन
AN ISO 9001-2015 PORT

मुरगांव पत्तन प्राधिकरण

(पत्तन, पोत परिवहन और जलमार्ग मंत्रालय, भारत सरकार)
समुद्री विभाग, प्रशासनिक कार्यालय, हेडलैंड सडा, गोवा -403804

MORMUGAO PORT AUTHORITY

(Ministry of Ports, Shipping and Waterways, Govt. of India)
Marine Department, Administrative Office, Headland Sada, Goa - 403804
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SAGARMALA
PORT-LED PROSPERITY

DC/G-83/2023/01094

Dt. 13 /09/2023

To,

All Parties

Sub.: Budgetary quotation for Operation and maintenance of the OSPR Equipment of the Port

Mormugao Port Authority (MPA) Goa categorized under Tier-1 risk categorization for the Port. Port has its own OSPR equipments, procured in May 2017 through M/s ENVIROCARE SYSTEMS, Mumbai. The List of the OSPRE equipment are enclosed as Annexure-II

Port has intended to maintain the OSPR equipment through an external agency and also increase the boom size from 600 mts to 700 mts (total) to minimise the risk of oil spill.

In view of the above you are requested to give the budgetary quotation for

- 1) 5 years Comprehensive Annual Maintenance Contract for Operation and Maintenance of OSPRE equipment of the Port.
- 2) Supply of comparable 100 mts inflatable boom along with its accessories. Boom specifications enclosed Annexure-III

Scope of work and Terms and conditions of the contract are enclosed. For detail information you can do the site inspection.

Kindly submit your budgetary quotation along with applicable terms and conditions if any, latest by 27.09.2023.

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Dy. Conservator

OPERATION AND MAINTENANCE OF THE OSPR EQUIPMENT OF THE PORT

SCOPE OF WORK

The contract involves engagement of trained manpower for carrying out Operation & Maintenance of Oil Spill Response equipment at Mormugao Port Authority (MPA).

Detailed Scope of Work

1. 600 mtrs fencing boom and other OSPR equipment shall be supplied by MPA (enclosed as Annexure-I). However, contractor has to supply 100 mtrs fencing boom along with its accessories as per the give specifications (enclosed as Annexure-II).
2. While laying down the boom, care must be taken to maintain the gap of minimum 5 to 10 metres between oil boom and ship hull by using Anchors.
3. During Operation /mock drill proper communication to be maintained between ship and port control through Intrinsically Safe Equipment for communication. Contractor shall have to provide sufficient equipment for proper communication at their own cost to the deployed personnel.
4. On completion of operation/mock drill, entire laid up boom shall be cleaned retrieved immediately. Then all the materials shall be stored back properly for further use.
5. Joint inspection /exercise shall be carried out annually by Port Authority, Coast Guard, OISD for effectiveness of pollution response equipment and efficiency of manpower, any observation/shortfall shall be incorporated/complied by contractor on his own cost.

CONTRACTOR shall undertake regular internal and external exercises that include deployment of equipment to demonstrate a satisfactory level of proficiency. Internal exercises shall be conducted in-house for CONTRACTOR training and evaluation purposes while the external exercises shall incorporate the Employer, MPA, Participating Oil Companies and the Indian Coast Guard and shall be scheduled as mutually agreed.

Three types of exercises will be conducted;

Exercise Type	Description
A	CONTRACTOR must conduct exercises on bi-monthly basis on a mutually agreed date for ensuring readiness of all OSR equipment, services and personnel to meet the emergency Situation because of oil spillage in presence of MPA representative. Also the firm to maintain all necessary documents for the record and future audit. Apart from above, the firm should carry out at least twice mock drill in a year.
B	Emergency Response Exercise (Tier-1) to be performed by the CONTRACTOR once in a year which will be witnessed by the representative(s) of MPA, All Oil companies & Coast Guard.
C	If required Scenario Specific Exercises to be designed and carried out with participation of MPA and other external agencies on mutual arrangement.

6. The contractor should provide at his own cost all the PPE to the deployed personnel. In addition to PPE, the contractor should keep followings safety equipment as stand by to meet the emergency requirement: a) Floating chemical resistant suit, b) Chemical resistant hand glove, c) Anti-skid chemical resistant shoe, d) Life jacket etc.

7. The contractor shall carry out the work strictly in accordance with the contract to the satisfaction of the Deputy Conservator, MPA or his representative and shall comply with and adhere strictly to his instructions and direction on any matter (whether mentioned in the contract or not) in relation with the contract. In case of any emergency / oil spill at any part of the MPA, MPA reserve the right to engage the personnel and equipment without any additional cost.
8. Utmost care must be rendered to safeguard the deployed personal, equipment and port properties. In case of any damage to the Boom or any equipment, same must be brought to the notice of Deputy Conservator / Harbour Master within 4 hours of occurrence. Thereafter, any report on damage if brought to the notice of DC/HM or any damage found during inspection by Port Officials, the same will be on the account of Contractor.
9. **Maintenance of Equipment and other facilities:**
The contractor shall carry out planned maintenance as per the OEM's recommendations/ schedule with proper records with a copy to the employer. In case of damage to boom and any other OSR Equipment during the contract, the contractor should repair the damaged equipment within 15 (fifteen) days.
10. **Demobilisation of equipment and clearing off the site:**
The contractor shall demobilise all his equipment and materials from the site within 30 days from the date of expiry of the work order at their own cost.

Terms and conditions

1. The contractor shall be entirely responsible operation and maintenance of the Port's Oil Spill Response Equipments (OSPR) and ensure it to be working at all times.
2. The period of the contract is 5 year, which will be extendable for further period of one year at the same rates, terms and conditions at the discretion of the Port and subject to satisfactory performance. In such case, the Contractor shall extend the validity period of Bank Guarantee for further one year.
3. The contractor shall deploy 5 personnel to carry out the work at site which includes 1 Supervisor (IMO levels-I certified), 4 multitasking staff in general shift (08:30 to 17:30 hrs). The deployed staff should have experience in operation and maintenance of OSPR equipments. No staff can be replaced or exchanged without the concurrence of MPA officer in charge in writing. The daily reports are to be maintained. The Muster roll of all the employees to be maintained and put up for verification of officer in charge at the end of each month.
4. During Emergency / mock drill /operation of OSPR equipment mandatory staff should be made available as per Port requirement / NOS-DCP guidelines within 12 hrs of notice which will be paid extra, depends on the staff deployed and number of days worked.
5. The contractor or his authorized representative who can take decision on the spot shall be available at the work place during office hours (08:30 to 17:30 hrs) in all

- matters reported to him by the staff and should also keep Port official informed. He should also be available on mobile at all times for taking prompt decisions in case of any eventuality or as the case, may be.
6. The Contractor shall carry out preventive maintenance of the entire OSPR equipment as per Service Schedule / Maintenance plan and breakdown/ repair maintenance, if any. The maintenance shall be carried out as per the manufacturer's standard procedure and according to the instruction manuals. The entire components have to be cleaned externally and internally by proper means, at least once in a month or as per the periodicity prescribed by the standards.
 7. Mock drills should be carried out as per the standard schedule provided by the Port.
 8. All the spares/ critical spares and consumables as necessary for the upkeep of the system during the contract period shall be arranged by the contractor.
 9. The Contractor shall review quantity and adequacy of spares in stock, in order to offset the lead time requirement for procurement.
 10. Failure registers are to be maintained by contractor periodically. The register shall indicate date and time of problem noticed, failure details, how the rectification is carried out, spares particulars, date and time of rectification. The contractor or his authorized Engineer/ representative has to sign the register and countersignature of Port official shall be taken at the end of each month.
 11. The Contractor has to keep all records of the daily / preventive / breakdown maintenance, inspection of OSPR equipment as required with signature of the contractor or his authorized representative and put up for verification of Port official at the end of each month.
 12. All the batteries are to be monitored regularly and topping up of distilled water in batteries is to be carried out as and when required.
 13. In case of emergencies /Mock drill, the additions, modifications or alternations carried out to the existing equipments are to be recorded and documented and same shall be promptly reported to the Port official with proper details.
 14. Equipment which requires painting should be painted by the contractor based on the joint inspection report. Paint will be supplied by Port.
 15. All tools and tackles and logistics involved in the work shall be arranged by the Contractor at their own cost. The transportation cost, if any, shall be borne by the contractor.
 16. Necessary Entry passes shall be obtained by the Contractor at their own cost with prior approval of the Port Officials on Duty.
 17. The works shall be carried out with due regard to safety standards prevailing in the Port.

18. Contractor has to calibrate and set meters, safety devices, protection devices, measuring instruments, gauges etc. periodically to ensure accuracy and records of which to be produced to the Port official from time to time.
19. Any breakdown has to be attended within 2 hours. The delay beyond specified completion period is subject to levy of penalty of Rs.750/- per hour for first day and Rs.1,500/- per hour from next day onwards till work is completed.
20. In the event of any category of staff deployed for the subject work is in need of availing leave or remains absent then the contractor should make immediate alternate arrangement for replacing the personnel, as the case may be at site failing which, penalty of Rs 700/- per day per person will be levied in addition to deduction of wages of that particular staff until he resumes duty.
21. Any other maintenance work necessary for overall upkeep of the OSPR equipment shall be in the scope of the contractor.

The work is required to be carried out strictly as per relevant standard Specifications. The above works shall be carried out under the overall supervision and to the entire satisfaction of the Dy. Conservator /or his representative.

Exclusions:

1. The oil, lubricants and paint will be supplied by the Port.
2. Distilled water will be provided by the Port.
3. Diesel for Power pack will be supplied by the Port.

List Oil Spill Pollution Response Equipment (OSPPE) of the Port.

Sr. No.	OSPR EQUIPMENTS Description	Quantity
1	INFLATABLE BOOMS	600 MTRS
2	SKIMMER (20TPH- 50% WEIR, 50% BRUSH)	01 NO-20TPH - WIER, 01 NO- 20 TPH - BRUSH 01 NO -20TPH- DISK
3	OSD APPLICATOR WITH SPRAY ARMS (8M), 02 NOZZLES SYSTEM AND 02 NOS HAND LANCERS	02 NOS PORTABLE FITTABLE ON TUG/WORK BOAT
4	FLEX BERGE (10 TON)	02 NOS
5	ABSORBENT BOOM 5 INCH DIA X 5 FT LENGHT	80 Nos
6	ABSORBENT PADS 20 X 30 INCH	70 NOS
7	STORAGE CAP FACILITY - TEMPORARY 10 CBM EACH	02 NOS

Specification of Existing boom and its accessories

Sr. No.	Item	Make/Model	Specification
1	Air Inflatable Booms	Envirocare	PVC coated Polyster fabric , 950 GSM,80N/MM tensile, TOTAL HIGHT:115CMS,FREE ON BOARD:50CMS,DRAFT:65CMS,BALLA ST CHAIN:12 MM GI100MICRONS,CHECK WALVE 3" Dia, Mansoon Type, For Inflation & deflation Section Length : 25 mtrs.
3	Power Pack type I	Yanmar Diesel Engine	10H.P , DIESEL DRIVEN WITH BATTERY START /+HAND START
4	Power Pack type II	Yanmar Diesel Engine	10H.P , DIESEL DRIVEN WITH BATTERY START+HANDSTART
5	Air Blower Bag pack	STHIL	PETROL DRIVEN AIR BLOWER BACK PACK ,

TECHNICAL SPECIFICATION FOR SUPPLY OF INFLATABLE BOOM

BOOM SPECIFICATION	
Manufacture	Shall be manufactured to ASTM D751 standard. Shall be abrasion, puncture, bridging, shock load and hydrostatic resistant as per latest ASTM standards – ASTM F1523-94 (Re-approved 2013). Shall provide a safe means of oil containment – ASTM F625 & F715 Standard
Performance Standards and Data	Shall conform to the minimum performance standards required by ASTM - F625(F625M-94) (Re-approved 2011) E2. All performance data shall be provided to user, including information such as safe towing speed in J/U configuration without entrainment of oil, safe speed for in-line towing, effectiveness with respect to wave height, effectiveness with respect to currents etc. and operations and maintenance manual.
Inflation and Deflation	Multi-point
Buoyancy Chambers	Shall have individual and isolated buoyancy chambers.
Fabric	<p>Boom fabric must be made from synthetic rubber (Neoprene). Air-valves must be recessed and flush with the boom surface to avoid damage during operation. Replaceable fiberglass rods, secured with stainless steel brackets, must be mounted in vertical ducts between each air chamber to secure draft and freeboard. The boom must be designed with a Hot galvanized ballast chain, which shall also be the main tension member in the boom construction. This seamless, flexible structure must have very high abrasion resistance, peel resistance, tensile strength and should withstand the effects of sun, sea and oils which destroy many other booms. For safety reasons boom must have with highly visible yellow horizontal stripes on both sides.</p> <p>Tensile strength: minimum 250N/mm Chamber Sectional Length: 4 to 4.5 m Buoyancy Chamber Length: 3.5 to 4 m</p>
Boom Weight	Minimum 9 kg/m
Deflated Height	1300 mm
Freeboard	Minimum 450 mm
Draft	Minimum 630 mm
Volume of buoyancy chamber	Minimum 300 Litres
Buoyancy to Weight ratio	Minimum reserve of 11:1
Breaking load (chain)	Minimum 110kN
Tension & ballast chain	High grade hot dip galvanized with mini 10mm thickness
Wear resistance of surface	150 mm ³ (DIN 53516)
Sectional length of boom	25m
Connectors (Universal)	Aluminium ASTM end connectors
Effective in current & effective in wave height	3 knots & 3m
Operational & Storage temperature of boom	-25 to 60 deg C & -40 to 60 deg C

Safe towing speed	Minimum 0.5 kn without entrainment of oil in J/U configuration. Maximum inline towing speed 10 knots.
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AIR PACK INFLATOR

Description & Suitability	Backpack inflator
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ACCESSORIES

Accessories for boom	<p>a) ASTM connectors, preferably Universal connectors with quick release and assembling characteristics so that two different types (make and model) of nearshore booms of same dimensions can be attached to each other for usability. Complete anchoring system for day and night operation.</p> <p>b) Tow set along with standard accessories like buoys, ropes, etc.</p> <p>c) Spare kit: The kit shall include spares for emergency repair requirement for Boom, along with tool kits.</p> <p>d) Anti-abrasion mat: the anti-abrasion mat shall protect the boom against damage in fabric during the deployment/recovery of the boom, minimum 10 x 3 mt.</p>
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PRODUCT CERTIFICATION

Certification and Technical data (all to be in English)	<p>(a) Tensile strength certificate of fabric and breaking strength certificate of ballast membrane.</p> <p>(b) Boom deployment time certificate (sample certificates for similar models).</p> <p>(c) Witnessing of inflation type (DNV) for similar models.</p> <p>(d) Mill Test Report (MTR) /Certified Mill Test Report for Aluminium/ Marine Grade Steel used in manufacturing of boom reel, connectors, and container.</p> <p>(e) Brochure and technical specification sheet of equipment being offered.</p> <p>(f) OEM certificate stating equipment being offered is manufactured by them at their facility in India</p> <p>(g) Third Party Inspector (Bureau Veritas, DNV, Achilles JQS, LRS, IRS, BIS or equivalent.) Certificate.</p> <p>(h) Quality Assurance Plan to be finalised before inspection.</p>
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ANNEXURE-IV

PRICE SCHEDULE (BILL OF QUANTITIES)

NAME OF WORK: "OPERATION AND MAINTENANCE OF THE OSPR EQUIPMENT OF THE PORT"

- a) Comprehensive Annual Maintenance Contract (CAMC) for operation and maintenance of the OSPR equipment

Sr no.	Year	Period	Amount Per month (Rs)	Grand annual Total (Rs)	GST (%)	Total annual Amount (Rs)
1	First year CAMC	12 month				
2	Second year CAMC	12 month				
3	Third year CAMC	12 month				
4	Fourth year CAMC	12 month				
5	Fifth year CAMC	12 month				
Total Amount for 5 years					Rs	

- b) Supply of inflatable boom along with its accessories as per the given specifications

Sr no.	Description	Quantity	Per meter charges (Rs)	Grand Total (Rs)	GST (%)	Total Amount (Rs)
1	Supply of comparable inflatable boom along with its accessories as per the given specifications	100 mtrs.				

- c) Additional staff during emergency/mock drill.

Sr. No.	Year	Per day payment to each staff (Rs)
1	First year	
2	Second year	
3	Third year	
4	Fourth year	
5	Fifth year	