EMSA NEG/1/2015 Stand-by Oil Spill Recovery Vessels

Information Meeting

Pollution Response Services Unit NEG12015@emsa.europa.eu

Madrid and Gdynia / 27 and 29 January 2015



Purpose of the meeting



Provision of information regarding the Negotiated Procedure EMSA/NEG/1/2015:

- EMSA's At-sea Oil Recovery Service
- Scope of procurement
- Contract Structure
- How to apply
- Questions and Answers



Introduction to EMSA's At-sea Oil Recovery Service

Background



Establishment and tasks

- Post Erika (2002: EMSA established)
- Post Prestige (2004: new task Marine Pollution Preparedness & Response)

Decentralised Agency of the European Community

- Own legal identity
- No legislative role
- Technical and operational support
- 250 staff and approx. 54 mEUR annual budget

Legal basis

Regulation 1406/2002 as amended (amendment from 2013 – a new task related to offshore installations' spills)



Fields of competence





Maritime safety

Prevention of pollution caused by ships



EMSA

EMSA's objectives

Maritime security



Response to pollution caused by ships





Response to pollution caused by oil and gas installations

EMSA's pollution response services



- Network of Stand-by Oil Spill Response Vessels
- CleanSeaNet and Illegal discharges
- ➤ HNS Operational Support: MAR-ICE Network
- Experts: On-site/Office-based









Developments



Dispersant Application Service

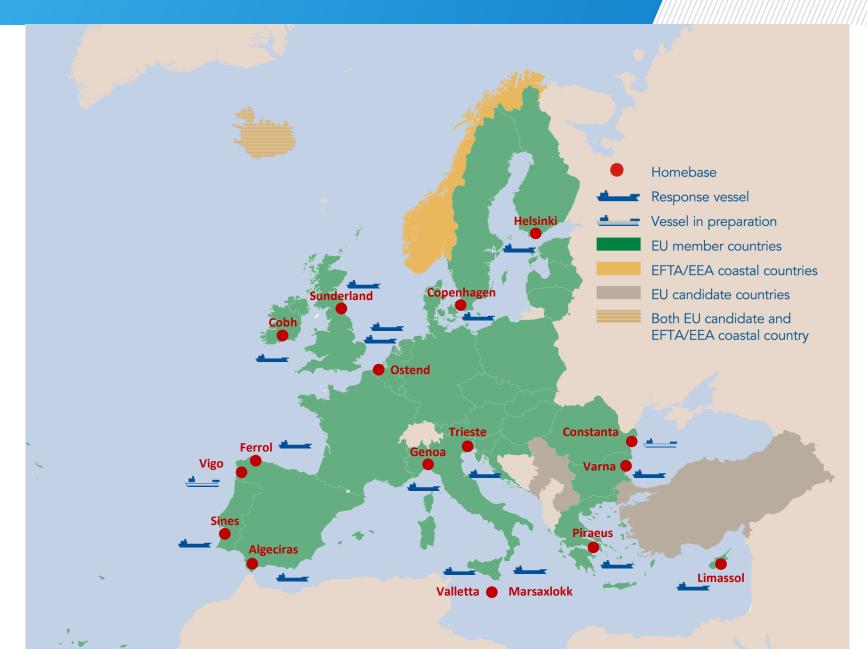
- Limited quantities of dispersants stored in selected EMSA depots
- Seaborne dispersant spraying arrangements in Malta and Cyprus (Atlantic area to be implemented in 2015) as part of the oil recovery vessel set-up
- 1-2 Airborne dispersant spraying arrangements, to be located in a selected location in Europe, in conjunction with chartered airplane(s)

Equipment Assistance Service (EAS) (proposal)

- Oil Spill Response (OSR) equipment stockpiles in selected locations for use primarily by Vessels of Opportunity (VOO)
- Primarily, focus on OSR equipment not often available in EU Member
 States e.g. fire booms, combined containment and recovery systems

Network Map as of January 2015





Framework for Service Network of Stand-by Oil Spill Response Vessels



- "Top-up" Member States pollution response capabilities
- "European Tier" of resources
- Mobilisation by EMSA at request of MS/EFTA/CC or Commission
- Channelled through "EU Community Mechanism"
- Emergency Response Coordination Centre (ERCC) managed by DG ECHO (former MIC)
- Under "operational control" of the affected coastal State

Main Objective: Stand-by At-sea Oil Recovery Service



Contractor must ensure that:

- Vessel undertakes normal commercial activities; and
- At request, transformed & mobilised at short notice for at-sea oil recovery services



Simplified mobilisation procedure





Request for assistance is sent to EMSA



EMSA contacts the vessel contractors to gather data about the position of the vessels and mobilisation time





The vessel contractor and Requesting party sign the Vessel Availability Contract



The vessel stops commercial operations, loads the OSR equipment and mobilises the vessel within 24 hours



The vessel is ready for response operation under the command of the Requesting Party









Type of Vessels





Tankers



Dredgers



Icebreaker



Offshore supply vessels

Type of Equipment















Tankers - Advantages



- Large storage capacity (EMSA largest is 7,458m³)
- Prepared to deal with oil (heating, filling, discharging)
- Flexibility for decanting
- Flashpoint
- Unrestricted sea-going service



Tankers - Disadvantages



- Space on deck
- Speed
- Low speed
- Manoeuvrability
- Crew number
- Accommodation



Offshore Supply Vessels - Advantages



- Deck Space
- Equipment Deployment
- Less pre-fitting for installing equipment
- Manoeuvrability and Low Speed
- Speed
- Visibility
- Accommodation for EMSA and liaison officer





Offshore Supply Vessels - Disadvantages



- Storage capacity limited to 1,000 1,500m3
- Bad weather swell washes the aft with oil (slippery)
- Good weather dirty equipment oil spreads quickly
- Flashpoint
- Significant pre-fitting (e.g. piping and heating)





Setting-up the Service



Preparatory Phase

- Purchase/transfer of oil spill response equipment
- Pre-fitting the vessel for equipment installation
- Crew Training

Stand-by Phase

- Vessel available and ready to respond within mobilisation time (24h.)
- Equipment maintenance
- Drills and Exercises

Preparatory Phase: Challenges



- Pre-fitting, conversion works
- Purchase/transfer and installation of OPR equipment
- Mobilisation Plan, Operational Procedures
- Crew Training
- Certification by Classification Society (Class Notation)
- Acceptance Test





Stand-by Phase: Drills



Quarterly drills: 4 times a year

Scope:

- To verify the level of readiness of vessels, crews and OSR equipment
- To train crews in oil pollution response: equipment operation with other units at sea



Stand-by Phase: Exercises

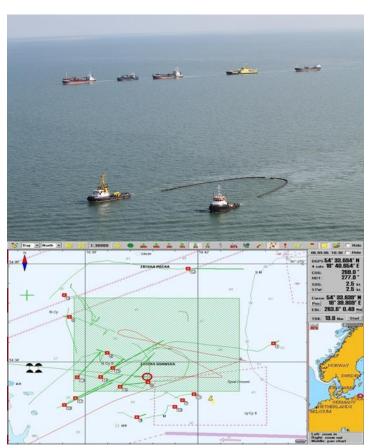


Type:

- Notification
- Operational (max. 10 days/year)

Scope:

- Integration of EMSA vessels in EU Member States Command and Control Structures
- Co-operation with participating Units
- Internal and External level of Coordination





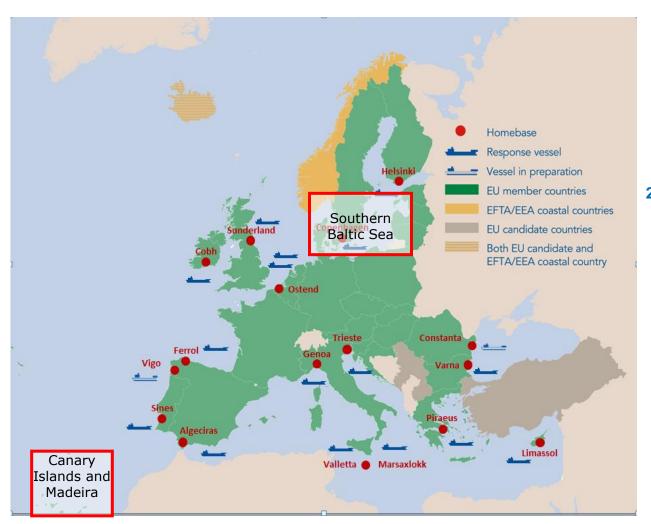
Scope of procurement

Lot 1:

Canary Islands and Madeira

Lot 2:

Southern Baltic Sea



23

Lot 1: Canary Islands and Madeira



Canary Islands and Madeira - covering the area limited by the following points:

A 27°30'N 18°30'W

B 27°30'N 14°30'W

C 29°30'N 12°30'W

D 33°15′N 12°30′W

E 33°15'N 18°30'W

Minimum capacity of the arrangement:

1,250 m³

Minimum capacity per vessel:

700 m³

Flashpoint:

Below 60°C

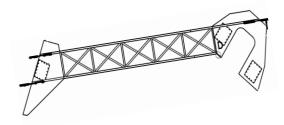


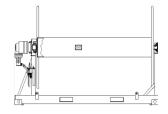
Lot 1: Equipment solution

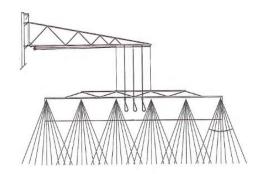


Purchase of the following equipment:

- 2 x Sweeping arms
- 2 x 250m booms
- Skimmer
- Slick detection system
- Additional small equipment (mini-lab, VHF, cleaning equipment, gas detector, flash point tester, flow meter, etc.)
- Dispersant spraying system + storage container(s)







Lot 2: Southern Baltic Sea



Southern Baltic Sea - covering the area limited by the line from Kristiansand (Norway) and Klitmøller (Denmark) to the West and limited by the line from Liepāja (Latvia) and Kalmar (Sweden) to the North.

Minimum capacity of the arrangement:

1,250 m³

Minimum capacity per vessel:

700 m³



Lot 2: Equipment solution



Set of equipment transferred from the previous contractor













- 2 x Sweeping arm
- Offshore skimmer
- High-capacity skimmer
- Arctic skimmer
- Slick detection system
- Additional small equipment

Purchase



2 x 250m booms Additional small equipment



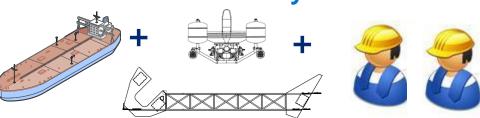
Contract structure

Dual Contract Structure



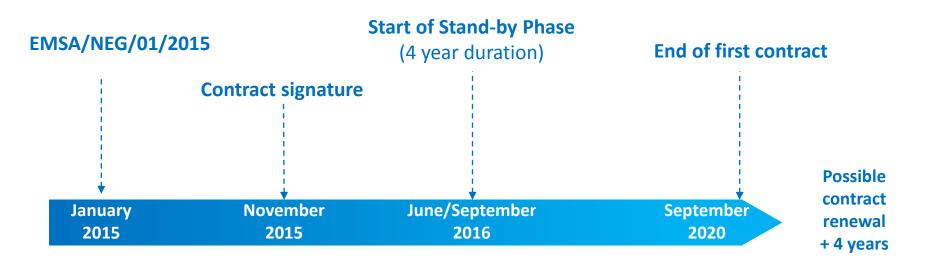






Timetable





Vessel Availability Contract (VAC)



Between EMSA and the Contractor

4 Years + Renewable once = Maximum 8 years total

Vessel Availability Contract

It secures:

- Requirements for vessel(s), equipment and crew
- Stand-by / availability
- Drills and participation in exercises
- Mobilisation time
- Mandatory use of the Incident Response Contract

Incident Response Contract (IRC)





Incident



Pre-fixed contract with pre-set conditions & tariffs:

- Between the requesting coastal State and contractor
- Avoid unnecessary high tariffs vs. vessel of opportunity
- 1 Model Contract for 20+ different legal systems

IRC: Some key provisions



Clear allocation of responsibilities during operation

- Under operational command of the MS (SOSC)
- National officer on board
- Safety responsibility: Master (final)

Period

21 Days: "window of opportunity"/economic commitments of operator

Costs

- 2 daily rates (operational/stand-by)
- Operational costs (fuel)
- Cleaning

Renewal possible under same conditions

Financial Elements



Preparatory Phase - Pre-financing available from EMSA

- 1) Oil Spill Response Equipment
 - Purchasing Pre-financing up to 100%
- 2) <u>Pre-fitting Vessel</u> (e.g. for equipment installation)
 - Pre-financing up to 80%
 - Remaining 20% paid when vessel is accepted by EMSA

Stand-by phase

3) Vessel Availability Fee (covers drills; crew training; storage, maintenance and insurance of equipment)

Additional Payments

- 4) At-sea Exercises: Daily rate + Fuel
- 5) Pollution Response Incident by Member State: Daily rate + Fuel + Cleaning



Lot	Maximum overall budget
1. Canary Islands and Madeira	€5.2m
2. Southern Baltic Sea	€3.2m

Note: During the second procurement phase - Invitation to Tender the ceilings per category (equipment, pre-fitting and availability fee) will be established. In any case, the maximum overall budget ceiling must be respected. The difference in the ceilings between the lots is explained by different specific requirements per lot in terms of equipment and/or vessel.



How to Apply

Key Issues



1. Procurement Procedure

2. Procurement Timetable

3. Submitting "Applications"



Procurement 2015: Negotiated Procedure



2 Step Approach:

Step 1 - "Invitation to Apply"

Step 2 – (Restricted) "Invitation to Tender"

Step 1: Invitation to Apply



Publication of Invitation to Apply in the OJEU on 3 January (Open to any Interested Party)



Submission of Applications: Deadline 18 February



Evaluation of Applications as per Enclosure 1: Criteria



Determination of Pre-Selected Candidates

Step 2: Invitation to Tender



Invitation to Tender (restricted): Pre-Selected Candidates



Submission of Bids



Improvement to Bids: Best Quality/Price Ratio



Submission of Final Bids



Evaluation of Bids: Info provided in the Tender Specifications



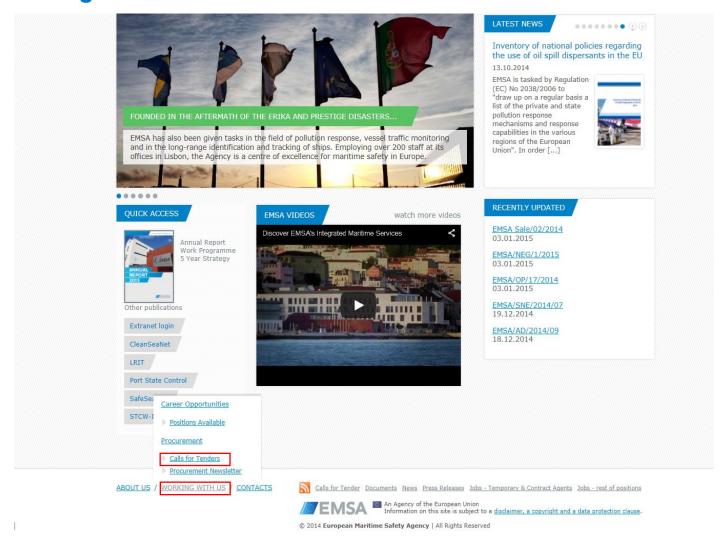
Award of Contracts

Invitation to Apply documents



www.emsa.europa.eu

"Working with us" → Procurement → "Calls for Tenders"



Invitation to Apply documents





European Maritime Safety Agency

IMPLEMENTATION TASKS / OPERATIONAL TASKS / EVENTS / PUBLICATIONS / NEWS & MEDIA

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PROCUREMENT MENU

Procurement Main Page

Ongoing calls for tender

Tender Archives

- Period 2011 Today
- Period 2006-2010
- Awarded contracts

IMPORTANT INFORMATION FOR TENDERERS

Guidelines for Tenderers.
Read before submitting your bids.

Remedies

DOCUMENTS FOR TENDERER

- Financial Form
- Legal Entity Form
- E Declaration on Honour
 General Conditions for
- General Conditions fo Purchase Order
- Low-value procurement procedure Tendering Conditions (applicable only if Invitation to Tender refers to them)

PROCUREMENT NEWSLETTER

If you are interested in receiving information about calls for tenders launched by EMSA, please fill the form:

Ongoing Calls for Tenders



Requests for additional information regarding procurement procedures must be sent exclusively to the email indicated in the tender documentation.

Tender related questions and answers are published in this page (pdf file below tender documentation zip files).

Responsibility for monitoring the Agency's website for replies to 'questions/answers' and/or further information remains with potential candidates.

	Description	Published	Deadline	Updated
EMSA/OP/13/2014	Service Contract(s) for Aerial Dispersant Application Service	06.12.2014	23.02.2015	17.12.2014
EMSA/NEG/1/2015	Service Contracts for Stand-by Oil Spill Recovery Vessel(s)	03.01.2015	18.02.2015	03.01.2015
EMSA/NEG/65/2014	Provision of ancillary services for an at-sea exercise	04.12.2014	01.02.2015	04.12.2014
EMSA/OP/15/2014	Provision of trainings on International Ship and Port Facility Security (ISPS) Code	09.12.2014	26.01.2015	17.12.2014
EMSA/OP/17/2014	Contracts for maritime surveillance from TerraSAR- X/Tandem-X/PAZ products	03.01.2015	26.01.2015	03.01.2015
EMSA Sale/02/2014	Public sale of of one rigid sweeping arm set (two arms), one crane and one slick detection system	03.01.2015	22.01.2015	03.01.2015

Data protection clause

Any personal data submitted in the framework of the procurement procedure and/or subsequently included in the Contract shall be processed pursuant to Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data. It shall be processed solely for the purposes of the performance, management and follow-up of the Procurement Procedure and/or subsequent Contract by the Data Controller without

Invitation to Apply documents





European Maritime Safety Agency

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PROCUREMENT NEWSLETTER

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EMSA/NEG/1/2015

 Published
 03.01.2015

 Deadline
 18.02.2015

Service Contracts for Stand-by Oil Spill Recovery Vessel(s)

The Agency provides additional response capacity to that of the pollution response mechanisms of EU Member States through contractual arrangements with private or public companies/consortia. Such companies/consortia can be drawn from any relevant industry including shipowners/operators and the spill response service providers.

The contracted vessels would undertake normal commercial activities and, at request, be transformed and mobilised at short notice for at-sea oil recovery services during a (major) oil spill.

This procurement procedure for stand-by oil spill recovery vessels will cover the following geographical areas:

- · Canary Islands and Madeira
- · Southern Baltic Sea

More details about this procurement procedure can be found in the Invitation to Apply and associated Enclosures that can be downloaded in the zip file below.

Two Information Meetings open to any interested party, will be organised in January (see the details in the table below). Prior registration is not needed. Although it would be appreciated for logistic purposes to receive an e-mail (NEG12015@emsa.europa.eu) indicating the participation in the meeting.

Country	City	Date	Location	Agenda	Presentations
Spain	Madrid	27.01.2015	Sociedad de Salvamento y Seguridad Maritima (SASEMASR) c/ Fruela 3 28011 Madrid	(see below)	-
Poland	Gdynia	29.01.2015 10:30	Maritime Office Gdynia Chrzanowskiego Str. 10 (Conference Room 1st floor) 81-338 Gdynia	(see below)	-

MEG12015.zip

Agenda Madrid.pdf
Agenda Gdynia.pdf

Updated 12.01.2015

Zip file documents



Invitation to Apply

Cover letter: deadline for submission of original papers + electronic copy

Enclosures:

- 1: Application Specifications: main requirements;
- 2: Check-List: review it before sending application;
- 3: Legal Entity Form (LEF);
- 4: Financial Entity Form (BAF);
- 5: Declaration of Honour;
- 6: Template for "Statement of Subcontracting/Joint Offer".

Formal requirements



- Two sealed envelopes (one inside the other)
- One submission per lot, i.e., different lot different envelope
- Submission of 1 original paper copy of the application + electronic copy to NEG12015@emsa.europa.eu
- Justification for non-inclusion of requested documentation
- Applications can be in any official language of the EU (preferably in English)
- Point 10.6: General Description of Proposed Arrangement: must include copy in English
- Separation of documentation into <u>Parts A E</u> (as per the Checklist)

Application criteria



- a) Exclusion Criteria Satisfactory / Non-satisfactory
- b) Selection Criteria Satisfactory / Non-satisfactory

NON-COMPLIANCE WITH 1 EXCLUSION OR SELECTION CRITERION – GROUND FOR NON - ADMISSION

a) Exclusion criteria (points 10.2 - 10.3 of Application Specifications)



- Declaration on Honour duly filled and signed
- > Additional evidences to be provided if the contract is awarded

b) Selection criteria (point 10.4 of Application Specifications)



Economic and Financial Capacity



- Balance sheets for the last3 years
- FOR PRIVATE ENTITY:
 Statement of overall
 turnover and profit and loss
 account for the last 3
 financial years
- FOR PUBLIC ENTITY: annual budget of the last year

b) Selection criteria (point 10.5 of Application Specifications)



Technical and professional capacity of the Company/Consortium



- Document of Compliance (DoC)
 for International Safety
 Management (ISM) Code
 including the related latest
 external audit report
 Grouping: at least 1 member must have a
 valid DOC
- Overview of company/consortium
 Port State Control record (PSC inspections and detentions) or annual Flag Surveys for last 3 years 3 detentions will be ground for exclusion
- Where applicable, additional list of relevant services for last 5
 years Grouping: criteria evaluated as a group, not individually

Application Evaluation



Evaluation Result

Application meeting exclusion and selection criteria?

Yes → "Pre-selected Candidate" → Invitation to Tender

No → "End of Participation"

Checklist



ENCLOSURE 2 - APPLICATION CHECKLIST

Enclosed to the Invitation to Apply: Procurement Procedure N° EMSA/NEG/1/2015

Service Contracts for Stand-by Oil Spill Recovery Vessel(s)

Document	Check
Application signed by authorised representative	_
Ref. EMSA documentation: Invitation to Apply, point 3	Ш
Application submitted by 18 February 2015 at the latest	_
Ref. EMSA documentation: Invitation to Apply, points 2.b & 3	
Application inserted in 2 envelopes, one inside the other. Both envelopes must be sealed.	
If self-sealed envelopes are used, each envelope must be closed by an adhesive tape with sender's signature across	
Ref. EMSA documentation: Invitation to Apply, point 4	
Both envelopes labelled according requirements	_
Ref. EMSA documentation: Invitation to Apply, point 4	Ш
Electronic copy (PDF) of the application sent to NEG12015@emsa.europa.eu by 18 February 2015	
and/or	_
Included in the application in a CD or USB key	
Ref. EMSA documentation: Invitation to Apply, point 5	
Application must include a copy in English of the documents/information requested under point 10.6 General description	
of the proposed arrangement.	
Ref. EMSA documentation: Application Specifications, point 9	
Application structured in line with EMSA requirements - Parts A, B, C, D and E	_
Ref. EMSA documentation: Application Specifications, point 9	Ш
PART A	
1. Signed cover letter clearly indicating:	
For individual company:	
- the company applying	
- the person heading the project	
For groupings:	
- the companies forming the grouping (including roles, qualifications and experience of each company) - the company and person heading the project	
(Ref. EMSA documentation: Application Specifications, point 9)	

Document	Check
PART A	
2. Statement of Subcontracting/Joint Offer (template - Enclosure 6 to the Invitation to Apply)	
In case of Joint Offer or Subcontracting, please fill the document "Statement of Subcontracting/Joint Offer"	
Ref. EMSA documentation: Application Specifications, points 8 and 9	
PART A	
3. Original of the authorising document	
For individual company:	
Original of the document authorising the person heading the project to submit an offer and, in case of award, to sign the contract on behalf of the company	
For groupings:	
Original of the document authorising the company and person heading the project to submit an offer and, in case of award, to sign the contract on behalf of the grouping	
Ref. EMSA documentation: Application Specifications point 9	
PART A	
4. Legal Entity Form (template - Enclosure 3 to Invitation to Apply)	
Tenderers are exempt from submitting the Legal Entity Form requested and attachments if such a form has already been completed and sent either to EMSA or any EU Institution previously unless changes have occurred in the meantime.	
In case of grouping, each company must submit this document	
Ref. EMSA documentation: Application Specifications, point 10.1	
Supporting documents:	
copies of companyVAT number registration certificates and, if applicable	
- g copy of an Official Document (Official Gazette, Company Register, etc.)	
PART A	Ш
5. Financial Identification Form (template - Enclosure 4 to Invitation to Apply)	
This document filled and signed by the account holder and the bank (or accompanied by a recent bank statement.	
Ref. EMSA documentation: Application Specifications, point 9	
PARTB	
Declaration on Honour (template - Enclosure 5 to Invitation to Apply)	
or	
As evidences of absence of non-bankruptcy and absence of conviction for legal person:	
Recent extract from the judicial record or a recent equivalent document issued by a judicial or administrative authority	
and	
As evidences of compliance with fiscal and social security obligations:	
Recent certificates of the competent authority of the State where the company is established or if such certificate is not delivered, a sworn or solemn statement before a judicial or administrative authority or a notary or qualified professional	

Provisional Timetable Tender Phase



PROCUREME	NT PHASE 2: Invitation to Tender	
"Invitation to Tender"	"Invitation to Tender" sent "Pre-selected Candidates"	25 March
Visit to EMSA stockpile	Opportunity to review equipment for transfer	7- 10 April
Clarification meetings	Clarification with candidates	13 - 17 April
Preparation of Tenders	Documentation preparation	April - May
"Tender" Deadline	"Heavier" documentation submission	12 May

Provisional Timetable Tender Phase



PROCURE	MENT PHASE 2: Negotiation	
Negotiation Stage	Improvements to offers	June – July
On-site Meetings	Visits to vessels	End June/ Beg. July
"Final Tender" Deadline	Final offers	21 August
Final Tender Evaluation	Awarding of contracts	October - November

To be prepared for the Tender Phase



- Technical Specification of the vessel
- Pollution Response Equipment
- Mobilisation Plan
- Training Programme
- Financial Offer



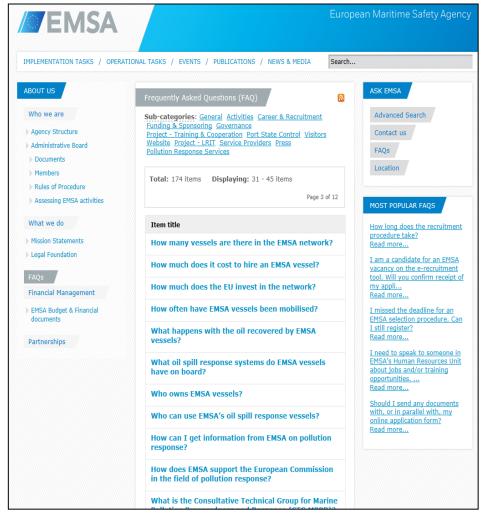
Latest publications



http://www.emsa.europa.eu/oil-recovery-vessels/opr-documents/item/1439-network-of-stand-by-oil-spill-



http://www.emsa.europa.eu/faq-pollution.html



EUROPEAN MARITIME SAFETY AGENCY

QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS

ATLANTIC

NETWORK OF STAND-BY OIL SPILL RESPONSE VESSELS - INFO SHEET

Remolcanosa S.A.

ABOUT THE SERVICE

The Contractor, Remolcanosa, is a marine services company based in Vigo and has worldwide operational capacity. The main activities include harbour towage, salvage, offshore and coastal towage, crew and vessels management and ISM and ISPS Codes Consulting.

The arrangement includes the supply vessel Ria de Vigo, which is based in Vigo providing Fisheries Monitoring



Sweeping arms





EQUIPMENT STOCKPILE

Sweeping arms

Two Sofreba rigid sweeping arms (13 m) with weir skimme

Desmi heavy duty boom, 2x250 m (Ro-Boom 2000) Vikoma weir boom 180

Framo welr/shovel drum high-capacity multiskimmer (Transrec 150)

Desmi weir skimmer (Terminator)

Seadarq oil slick detection system



Heavy duty boom



ABOUT THE VESSEL - Ria de Vigo



The Rio de Vigo's commercial activity is fisheries control.







IMO number: 8311417

Flag state: Spain

Port of registry: Santa Cruz de Tenerife

Type: Supply Vessel Built: 1985

Length: 69.00 m Breadth: 13.50 m Max draft: 6.80 m

Gross Tonnage: 1585 Ton Storage capacity: 1522 m³ Heating capacity: 750 kW Pumping capacity: 625 m³/h

Flash Point: >60° Propeller: 2 x Controllable Pitch Propeller

Bow Thruster: Yes Max. speed: 14.25 knots

Classification Society: Germanischer Lloyd



EUROPEAN MARITIME SAFETY AGENCY

QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS

ATLANTIC

NETWORK OF STAND-BY OIL SPILL RESPONSE VESSELS - INFO SHEET

Mureloil

Sines, Portugal

ABOUT THE SERVICE

The contractor providing the ship is Mureloil, result of a Joint Venture between Naviera Murueta and Naviera Elcano, both of them Spanish shipowners.

The vessel Bahia Tres provides bunkering services along the Portuguese coast. The equipment stockpile is located in Sines.

EQUIPMENT STOCKPILE

Sweeping arms

Sines

Two Lamor rigid sweeping arms (12 m) with weir/brush skimmer module (LJS 12)

Norlense single point inflation boom, 2x250 m (NO-800-R) Skimmer

Lamor offshore brush skimmer (LFF 100 2C)

Slick detection

Seadarq oil slick detection system



Sweeping arm



Boom and brush skimmer





ES

ABOUT THE VESSEL - Bahia Tres



The Bahia Tres' commercial activity is bunkering services.







IMO Number: 9428671

Flag State: Spain

Port of Registry: Santa Cruz de Tenerife

Type: Product Tanker Built: 2007 Length: 99.80 m

Breadth: 18.00 m Max. Draft: 7.00 m DWT: 6920 Ton

Gross Tonnage: 4969 Ton Net Tonnage: 1859 Ton

Storage capacity: 7413 m3 Heating capacity: 2300 kW Pumping capacity: 2050 m³

Flash Point: > 60°C Propeller: Fixed Pitch Propeller

Bow Thruster: Yes Max. speed: 12.7 knots

Classification Society: ABS and Bureau Veritas





BOOM SYSTEM

EMSA OIL SPILL RESPONSE EQUIPMENT

DESMI RO-BOOM 2000

Remark: The information is based on the manufacturer's documentation

BOOM WINDER

The Ro-boom is delivered on a 10 ft flat rack winder. The winder frame is used for storage, transportation and handling of the Ro-boom.

The winder frame is manufactured from specially designed steel and standard profiles.

Two frames with bearing housings for a shaft are mounted on the bottom frame. On the shaft a drum with end flanges is mounted. On one end of the shaft a sprocket wheel is mounted between the drum and the bearing housing. To rotate the drum a gearbox, with hydraulic motor, is mounted on a bracket plate on the bottom frame, the side of the bearing frame.



AIR BLOWER

The remote control stand with built-in air-blower is a movable unit designed for inflation/deflation of oil booms and operation of boom winders in areas where hazardous atmospheres may occasionally occur.

The remote control stand is connected to the power supply by means of a 10 metres hose set. It should be placed in such a way that the best possible control of the operation is obtained.



POWER PACK

The Ro-clean Desmi power pack, type DSPP 58 kW is a power unit, designed to operate in areas where hazardous atmospheres may occasionally occur. It is fitted with the necessary safety equipment to meet the safety standard Lloyd's Open Deck explosion proof Zone 2 areas and it is designed with ease of operation and maintenance in mind.

TECHNICAL SPECIFICATIONS :

Length: 2015 mm Width: 1115 mm Height: 1800 mm Weight: 1500 kg Max. pressure: 210 bar Flow range: 0-200 l/min



Name Winder Air Blo		Air Blower	Power pack	Flash point* Ex Class
Santa Maria(2x250 m)	Ro-boom winder	HRD2	Desmi DSPP 58, 58 kW	Zone 2
Aegis I (2x250 m)	Ro-boom winder	HRD2 (Integrated In the power pack)	Desmi DSPP 58, 58 kW	Zone 2
Ria de Vigo (2x250 m)	Ro-boom winder	HRD2	Hydraulic power provided by the vessel	N.A.

^{*} Depending on the location of the equipment on board, the vessel may be classified with a flashpoint above or below 60°C.



EUROPEAN MARITIME SAFETY AGENCY QUALITY SHIPPING, SAFER SEAS, CLEANER OCEANS

BOOM SYSTEM

EMSA OIL SPILL RESPONSE EQUIPMENT

LAMOR HDB 2000 HEAVY DUTY BOOM

Remark: The information is based on the manufacturer's documentation

GENERAL DESCRIPTION

The Lamor heavy duty boom is a segmented boom constructed in such a way that two layers of synthetic fabric are volcanized together with synthetic oil-resistant rubber outer layers. The boom is equipped with a ballast chain that guarantees correct deployment in sweeping operations.

The boom has ASTM connectors and towing lines. On deployment the boom sits symmetrically in the water, allowing for easy maneuver and for facing the oil slick from either side. Inflation of the boom is quick and efficient thanks to the air valve and the use of an air blower.

The boom is equipped with inflatable buoyancy chambers with separate air valves, which means that in case of puncture only one chamber will lose air. It is manufactured from heavy-duty neoprene rubber with a hypalon external skin.

This one-piece moulded composite construction has complete cross vulcanization of rubber and reinforcing plastics. The construction is seamless, it has high abrasion resistance, peel resistance and tensile strength.

The boom is also fitted with stainless steel fittings, galvanised ballast/tension chains and internal stainless steel rods. These rods ensure optimum skirt profile under tow.

KEY CHARACTERISTICS:

- Segmented heavy duty boom, 250 metres each
- Inflatable buoyancy chambers
- ASTM connectors
- Belt-driven air blower
- Storage reels mounted on 10' flat rack containers.







Freeboard 600 mm Operational temperature

Draught 1100 mm Efficient in waves

Length (chamber) 3 m Stable in current

Length (section) 50 m Deployment time

Weight per meter 19.6 kg Buoyancy /weight ratio

250 m - approx. 45 minutes

12.5:1

FOR MORE INFORMATION: www.emsa.europa.eu



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