**Evaluation criteria and requirements of the system (Part D of the Bid template for lot 2)**

Fire boom is used to contain oil to be burned in an onsite (in situ) burn operation or to protect areas spilled with burning oil. The fire boom must be inflatable with an integrated cooling system.

The system must include the ancillaries necessary for its autonomous operation on board a vessel (i.e. towing lines, reel or similar arrangement, air compressor, water pump or similar arrangement, hoses, etc.) thereby the necessary power supply must be foreseen. All suitable components should be hydraulically driven. The systems should be certified to operate in Hazardous Area Zone II according to the ATEX directive (ATEX 94/9/EC) or similar.

The whole system must be designed in such a way that it can be installed and operated on deck of any vessel without any specific or customised pre-fitting fitting if the vessel is already fitted with twist-locks for standard ISO container(s) (i.e. 10 or 20 feet).

It must be divided in sections, preferably between 10 to 30 meters that can be easily replaced when damaged during regular use. The separate sections of the boom will have standard connectors, with preference for ASTM connectors.

The boom must have an overall height between 750 and 1300mm and a minimum freeboard of 300 mm.

The boom should be easily operated (deployment and retrieval) minimising the man-power necessary for these operations. The fire boom should be easily maintained, transported and stored.

The fire boom must be designed for operation and towing in open sea. In terms of breaking strength (BS), the towing lines should have a lower value than the connectors (e.g. shackles) and around 75% of the boom value.

The complete system, comprising the fire-boom as well the ancillaries necessary for its autonomous operation on board a vessel, should be containerised (ISO certified containers) to facilitate transportation and storage.

**Please complete the space highlighted in grey in the tables below:**

|  |  |
| --- | --- |
| **Indicate the name of the system that is offered:** |  |

1. **SELECTION CRITERIA**

**Tenders not complying with all the following selection criteria will not be evaluated further:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Item N.** | **SELECTION CRITERIA** | **Compliance**  **Yes/No** | **COMMENTS** |
|  | | | |
| 1 | The system offered is an inflatable fire-boom with cooling system. |  |  |
| 2 | The fire boom (including connections) can withstand repeated fire exposure due to the oil in-situ burning activities, during which should maintain adequate flotation and the containment of a layer of oil up to 20 mm in thickness without loss. |  |  |
| 3 | The boom is divided in sections. |  |  |
| 4 | The boom has an overall height between 750 and 1300mm and a minimum freeboard of 300 mm. |  |  |
| 5 | The fire boom is stored and transported in ISO certified container(s) fitted with twist locks. |  |  |
| 6 | Towing lines breaking strength < connectors. |  |  |
| 7 | The system has a proven record of use in open sea. |  |  |
| 8 | Minimum warranty period of 2 years. |  |  |
| 9 | System includes all necessary ancillaries for its autonomous operation on board a vessel (i.e. towing lines, reel or similar arrangement, air compressor, water pump or similar arrangement, power unit, hoses, etc.). |  |  |

1. **QUALITY CRITERIA AND DESCRIPTION OF THE EQUIPMENT**

Bids shall be evaluated in accordance with the Quality Award Criteria (Qi) and their associated weightings (Wi) as described here below:

|  |  |  |
| --- | --- | --- |
|  | **Quality and appropriateness of the Inflatable fire-boom with cooling system for the EMSA pollution response services based on the information provided below** | **25%** |

**Please provide the following information relevant for the evaluation of this quality criterion:**

* Provide design, materials, total weight and characteristics (ballast type and weight, buoyancy to weight ratio, free-board height, tensile strength, weight per meter, abrasion resistance, fabric tear strength, puncture strength, floating system) of **1 fire-boom system,** comprising:
  + 150 m (or approximately) length of fire-boom, overall height between 750 and 1300mm and a minimum freeboard of 300 mm;
  + Bridles and towing lines;
  + Any other ancillaries necessary for its autonomous operation on board a vessel (i.e. reel or similar arrangement, air compressor, water pump or similar arrangement, power unit, hoses, etc.).
* Indicate if the equipment is certified under the Standard “ASTM F2152” or has an equivalent quality or certification (if yes, please specify):
* Specify the number of times the same system can be used under its optimum burn exposure/cool down cycle:
* Specify the maximum number of hours continuously burning and the temperature that the fire-boom can endure:
* Describe the different parts of the fire-boom that are separable and reusable after an in-situ burning operation:
* Describe the limitations of the equipment during an operation conducted in open sea (i.e. maximum operating speed, critical towing speed, any sea/wave working limits, etc.):

|  |  |  |
| --- | --- | --- |
|  | **Quality of the proposed arrangement for the storage, transportation and operation of the fire-boom based on the information provided below** | **10%** |

**Please provide the following information relevant for the evaluation of this quality criterion:**

* Describe if the system allows for a rapid deployment from a vessel (indicative deployment time):
* Specify the quality, type and characteristics of the ISO container(s) for storage and transportation of 1 complete system comprising approximately 150 meters of fire boom and all necessary ancillaries for its autonomous operation on board a vessel (i.e. towing lines, reel or similar arrangement, air compressor, water pump or similar arrangement, power unit, hoses, etc.).
* Description of options for handling and operation of the fire boom (indicate minimum number of people to safely operate the system):
* Indicate the clear deck space and ancillaries required for deployment and retrieval of 150 m of fire-booms:

|  |  |  |
| --- | --- | --- |
|  | **Complexity of the maintenance requirements for the fire-boom system based on the information provided below** | **5%** |

**Please provide the following information relevant for the evaluation of this quality criterion:**

* Describe the requirements that are necessary for the maintenance of the equipment (equipment requiring simpler maintenance will be evaluated higher):

|  |  |  |
| --- | --- | --- |
|  | **Completeness of the repair tools and spares for replacement of deteriorated/damaged/burned parts of the fire-boom system based on the information provided below** | **10%** |

**Please provide the following information relevant for the evaluation of this quality criterion:**

* Indicate the complete list of spare parts delivered with the boom and included in the price offer:
* The boom should be divided in sections. Indicate the length of each section and describe the replacement procedure:

|  |  |  |
| --- | --- | --- |
|  | **Efficiency of the fire boom based on the information provided below** | **20%** |

**Please describe the performance of the equipment. To support the description you may provide evidence such as:**

* Records of tests, sea trials and real operation:

|  |  |  |
| --- | --- | --- |
|  | **Quality of the factory acceptance test (FAT) based on the information provided below** | **10%** |

**Please provide the following information relevant for the evaluation of this quality criterion:**

* Describe the methodology that is adopted to test the equipment during FAT:

|  |  |  |
| --- | --- | --- |
|  | **Quality of the plans for Commissioning and Training based on the information provided below** | **5%** |

**Please provide the following information relevant for the evaluation of this quality criterion:**

* Describe the equipment (for the full set of items) and describe the methodology for commissioning on board a vessel:
* Describe provision of two day on-site training including theoretical and practical training and describe the methodology for training:

|  |  |  |
| --- | --- | --- |
|  | **Duration of extended warranty and efficiency of the post-sale service based on the information provided below** | **10%** |

**Please provide the following information relevant for the evaluation of this quality criterion:**

* Indicate terms and conditions of the extended warranty (in addition to the minimum warranty of 2 years):
* Describe the post-sale service:

|  |  |  |
| --- | --- | --- |
|  | **Quality, appropriateness and completeness of other ancillaries offered (different from those considered necessary)** | **5%** |

**Please provide the following information relevant for the evaluation of this quality criterion** **that is evaluated as an advantageous point.**

* Provide a description of any “other ancillaries” different from the necessary ancillaries as previously indicated in Point 2 – Quality criterion Q1, Q2 and Q4 of this annex. Offers including more ancillaries that are relevant to the operation of the equipment will be evaluated higher.

1. **PRICE OFFER TEMPLATE**

Bids shall be evaluated in accordance with the Prices for Evaluation (Pi)and their associated factor (Fi) as described here below:

| **Factor (Fi)** | **LIST OF PRICES FOR EVALUATION** | | | | | **PRICE in EUR (Pi)** |
| --- | --- | --- | --- | --- | --- | --- |
| 2 | Price per segment (section/part) of the fire-boom.  The comparison with other offers will be calculated taking 150 times the price per square meter of surface of the offered segment. | a | Price per segment | | |  |
| b | Length (m) of the segment | |  |  |
| c | Overall height (m) of the segment | |  |
| d | Surface (m2) of the boom segment (b x c) | |  |
| e | Price per 150 square meters ((a / d) \* 150) | | |  |
| 1 | Price of Certified ISO Container(s) including twist locks for storage and transportation of 1 complete fire-boom system, comprising 150 m (or approximately) length of fire-boom any other ancillaries necessary for its autonomous operation on board a vessel (i.e. towing lines, reel or similar arrangement, air compressor, water pump or similar arrangement, power unit, hoses, etc.) as described under Point 2 – Q2. | | | | |  |
| 1 | Price of repair tools and spares for replacement of deteriorated/damage/burned parts of the fire-boom system as described under Point 2 – Q4. | | | | |  |
| 1 | Price for each individual item that is part of the system and can be purchased individually (i.e. reel or similar arrangement, air compressor, water pump or similar arrangement, power unit, hoses, towing arrangement, etc.) as described under Point 2 – Q1. |  | **NAME** | | |  |
|  |  | | |  |
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|  |  | | |  |
|  |  | | |  |
|  | *(add more lines if needed)* | | |  |
| **Factor (Fi)** | **LIST OF PRICES FOR EVALUATION (continuation)** | | | | | **PRICE in EUR (Pi)** |
| 4 | Price for the purchase of a complete system comprising 150 m (or approximately) length of inflatable fire-boom with cooling system, overall height between 750 and 1300mm and a minimum freeboard of 300 mm including all necessary items for its autonomous operation on board a vessel (i.e. towing lines, reel or similar arrangement, air compressor, water pump or similar arrangement, power unit, hoses, etc.) as listed above in this table (all the individual items + ISO Container(s) for storage and transportation + repair tools and spares) | | | | |  |
| 2 | Price for on-site commissioning of the full system of equipment as described under Point 2 – Q7. | | | | |  |
| 4 | Price for a two day on-site training as described under Point 2 – Q7. | | | | |  |
| 2 | Price for attendance to the operational acceptance test upon delivery of the equipment | | | | |  |
| 4 | Transportation of 1 complete containerised fire-boom system, comprising 150 m of fire-booms and any other ancillaries necessary for its autonomous operation (as described above). | | | Price per 1 km (Road transport) will be multiply by a 1,000 kilometres for evaluation proposes | |  |
|  |
| **Total for evaluation (∑Pi x Fi)** | | | | | |  |

Tenderers are invited to fill in the table below with the prices of “other ancillaries” as listed under Quality criterion N.9. These prices will not be considered for the evaluation process. Nevertheless these prices will become part of the contract. EMSA may decide to purchase “other ancillaries” on the basis of the prices indicated below. Please add more lines if it is necessary.

| **Item**  **N.** | **LIST OF PRICES FOR OTHER ANCILLARIES (NOT FOR EVALUATION)** | **PRICE in EUR** |
| --- | --- | --- |
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