

**HINDUSTAN SHIPYARD LIMITED, VISAKHAPATNAM - 5**  
**PRQ No. PRQE/000487/11-12, dtd. 13.05.2011**  
**ENQUIRY TECHNICAL SPECIFICATION FOR FIRE DETECTION AND ALARM SYSTEM FOR 50 T**  
**BOLLARD PULL TUGS - VC- 11162 - 64 FOR INDIAN NAVY**

Clause No.	Description of Technical Specification	Vendors reply complied / Not complied
1	<b>GENERAL:</b>	
1.1	The supply shall include complete equipment as described in the technical specification.	
1.2	All drawings, manuals for installation, operation and maintenance , Comprehensive part list (CPL) and Part Identification list (PIL) shall be supplied along with the equipment within Two (2) weeks from placement of order. i. Drawings - 4 Sets ii. Manuals - 12 Sets iii. CDs - 2 Sets	
1.3	Separate cost shall be quoted for each unit of the equipment including control panel, each type of detectors and spares. Optional items if any shall be quoted separately indicating unit price. Specific mention is to be made in the Technical-bid in this regard.	
1.4	Ships general arrangement plans is enclosed . Tenderer has to study the same and design the complete system and scope of equipment as per SOLAS Regulations 13 (a) & 42 (d). Supplier has to prepare single line diagram indicating various types of detectors, MCPs in each loop, single line diagram for sounders and a detailed schematic layout plans indicating disposition of detectors, manual call push button boxes, sirens, rotating lights, etc. Basing on HSL GA Plan, the suppliers shall prepare all the Fire Alarms Plans as per IRS Classification and take approval of Class / Owner (Indian Navy) within Two (2) weeks after placement of order.	
1.5	The tug will be built to IRS class rules complying for operating in harbour and coastal waters / island territories. Class Notation is + SUL *TUG* + IY, AGNI 1. The vessel class notation as fire fighting vessel (FFV) should meet AGNI-1 requirements.	
1.6	HSL propose to use XLPE or EPR Cables for the Fire Detection System.	
1.7	<b>Life Time Support:</b>	
	Supplier shall confirm the provision of life time support by providing for a minimum period of 20 years from the time of delivery or trials whichever is earlier. In case the equipment is likely to become obsolete, the manufacturer shall give a clear three (3) years notice to the Indian Navy to assess the requirement of " Life Time Buy" of spares.	
1.8	<b>Training:</b> The ships's crew and shore maintenance staff are required to be trained on the operation and maintenance of the equipment installed onboard.	

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2	<b>TECHNICAL SPECIFICATION:</b>	
2.1	The system will consist of automatic fire alarm in the Bridge and fire detectors located in the machinery spaces. with an arrangement to automatically shut down electrically driven ventilation system and fuel oil pumps	
2.2	<b>Enviromental Conditions:</b> All equipment provided on the tug will be of marinised version and will be capable of continuously performing the specified duty under the ambient conditions in conformance to classification society rules applicable for Indian Coastal Environmental conditions.	
2.3	<b>Diagram Plates:</b> All control panels shall be provided with anodized aluminium diagram plates, clearly showing connections with terminal markings as on the equipment and they will be secured on the underside of the cover of the equipment. Further the tenderer shall supply anodised alluminium plate indicating the sections covering under each loop.	
2.4	Valid (2 years) Type approval certificates issued by the classification society for the offered equipment, detectors and sounders shall be submitted along with the offer.	
2.5	Fire alarm system should be interfaced with the ship's General Alarm System.	
3	<b>SCOPE OF SUPPLY:</b>	
3.1	Fire Detection Control Panel located in Bridge : 1 Set	
3.2	This fire alarm panel suitable for Bulkhead mounting with required no. of loops. Panel shall be provided with suitable cable entry glands.	
3.3	<b>Detectors, Mancall Points and Sounders:</b>	
	The type of detector shall be suitable for the area proposed and the quantity of detectors can function satisfactorily as per SOLAS.	
3.4	Tender has to indicate the number of detectors per each type, mancall points, sounders, sirens etc. satisfying to SOLAS regulations. However, during approval of drawings any additional items proposed by the surveyor has to be supplied at free of cost.	
3.5	End on line (EOL) resistors as required shall be included in the scope of supply.	
4	<b>SERVICE ENGINEER:</b>	
4.1	Competent Service engineer shall be deputed for the supervision of installation, commissioning and testing the equipment and attending trials of the vessel for demonstarting the performance of complete equipment under suppliers scope of supply to the satisfaction of ship's staff, surveyors and HSL. Tenderer shall indicate the lumpsum cost for commissioning, HATs / SATs to the complete satisfaction to HSL and Owners.	
5	<b>SPARES:</b>	
5.1	Spares in accordance with the manufacturer's standard and satisfying Class / statutory requirements shall be supplied for each of the equipments - 1 set	

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5.2	<b>On Board Spares:</b> The OB spares as recommended by manufacturer for scheduled servicing and maintenance of equipment falling due within the first operational cycle of the tug of 2 years shall be quoted separately with unit price of each item offered. The order for OB spares, tools and test equipment shall be done concurrently while placing the order for main equipment. The spares consumed within the guarantee period to rectify / liquidated known defects shall be replaced free of cost. The unpriced list of OB spares shall be enclosed to the technical offer.	
5.3	<b>Base &amp; Depot Spares:</b> The B & D spares as recommended by the manufacturer for 5 years exploitation of the tug shall be quoted separately with unit price of each item offered. The quotation from OEM shall be in ILMS format. The quotation shall be valid for 18 months. The Part Identification List (PIL) shall be enclosed to the technical bid for scrutiny.	
6	The following documents shall be essentially enclosed to the Technical Bid as otherwise the Offers shall be Ignored without any further correspondence.	
6.1	Clause wise compliance to all the clauses of the Enquiry Technical Specification indicating deviations / Alternatives suggested for our consideration.	
6.2	Copies of Type approval certificate for the offered make and model equipment.	
6.3	List of deliverables for the offered system	
6.4	Technical literature and leaflet for the offered system.	
6.5	The OEM Authorization Certificate for local sales and service support in India for the offered system.	
6.6	Preliminary GA drawing incorporating the layout of Fire detectors and man call points	
6.7	Unpriced Format of Price - Bid	
6.8	Preliminary Schematic Drawings with cable details on it.	
6.9	List of spares i.e Class, OB and B&D Spares	