

Tender document for prequalification of vendors

Introduction

AAGL has signed a contract for design and construction of 6 nos. Survey Ships for Indian Navy. These vessels are approximately 50 m in length and involve Approx. 150 tonnes of steel and – of aluminum for the construction of hull and superstructure. The hull form is of catamaran type and constructed out of DMR249A steel. The superstructure is of Marine grade aluminum alloy and welded to the hull through explosion bonding.

AAGL is interested to sub-contract the construction of these ships to a highly competent and qualified vendor selected through an open tendering system, comprising of submission of technical bid and price bid in two separately sealed covers. The technical bid shall incorporate following information,

- a. Complete strategy for hull construction, outfitting, engineering and piping work with micro schedules
 - b. Complete justification of vendors capability vis-à-vis the qualification requirements given hereunder
1. The sub-contract shall be formulated on the basis of the following scope of work.
- ✚ Formulation of build strategy including sequencing of assembly and construction process, prefabrication, sub-assembly and final assembly of hull upto main deck. The work is inclusive of setting up of procedures for prefabrication, erection and welding (manual, semiautomatic & automatic). The process of welding the external shell with external ceramic backing strip with the help of mig welding to be explored and facilitated. DMR249A to be used for steel construction. All underwater appendages and sea inlets/discharges shall be fitted. All outfits (supplied by AAGL) such as deck fittings, hull fittings including ICCP system, tank fittings, ladders/staircases, manhole covers/companion ways etc. shall be fitted at the hull construction stage (no additional time shall be provided in the construction schedule for such fitments). All ships markings/carvings shall be carried out. Ships mast and funnel to be fabricated and erected by vendor. Adequate number of skids shall be fabricated by the vendor for prefabrication of sub assemblies. Keel blocks and skid material shall be supplied by AAGL.

- ✚ Formulation of build strategy including sequencing of assembly and construction process, prefabrication, sub-assembly and final assembly of the complete aluminum super structure on skid. The work is inclusive of setting up of procedures for prefabrication, erection and welding. The possibility of welding the explosion bonding element to the super structure at the time of assembly on skid or vice-versa is also to be explored.

- ✚ Following machineries and equipments will be installed (AAGL supply unless otherwise mentioned).
 - 4 nos. sets of fixed pitch propellers with stern gear assembly
 - 2 nos. high lift rudders with trunk assembly and rotary went steering gear
 - 4 nos. main engines (1020 hp) with gears.
 - 2 nos. diesel alternators
 - Ship's pumps
 - Air compressors & receivers
 - Fuel & lubeoil centrifuges
 - RO Plants
 - Oily water separators
 - Sewage treatment plants
 - Bow thrusters
 - Housings and fittings for survey equipments as per list enclosed (to be manufactured by vendor and fitted on hull as per drawings provided by AAGL)
 - 2 nos. Windlass a/w hawsepipe, chain pipe and anchor/cable installation. (fabrication by vendor)
 - Guard rail and stanchions (fabrication by vendor)
 - Awning arrangements (fabrication by vendor)
 - Pneumatic fenders
 - Life saving appliances, seating of boats, watch bell, ships name, ships crest, jack and ensign stuff, booms with heel fitting (any fabrication by vendor)
 - Accommodation ladders
 - Oceanographic survey winches and seatings for containerized AUVs

All non integrated foundation structures to be fabricated by vendor. All foundation bolts and chocking material shall be arranged by vendor.

- ✚ The piping work shall be assigned on a turnkey basis i.e. inclusive of supply of all materials, valves, fittings, gaskets, fasteners, clamps, etc. The vendor shall be provided with preliminary and approved piping drawings for arranging materials sufficiently in advance. The cost of job shall be determined on actual quantization of pipes, flanges, bends, valves and cocks on unit measure basis and a schedule of rates offered and negotiated by vendor and approved by AAGL.

2. Qualification criteria of the vendor

- ✚ Minimum 20 approved welders (IRS) qualified for manual, semi-automatic and automatic welding of DMR249A steel in various applicable positions.

- ✚ Complete organization structure for following activities.

- a. Receipt, Storage and stacking of material supplied by AAGL as per stipulated practice
- b. Production management as per a mutually agreed micro schedule for the above activities interfaced with the activities of other vendors for electrification, accommodation systems, air conditioning, and painting.
- c. An in-house QAQC team
- d. In house team for providing progress inputs to the special project cell of AAGL for online project review.
- e. A senior site incharge, capable of interacting with the senior management of the shipyard as well as with WOT.

- ✚ Adequate experience of vendor's personnel in constructions of defence and para defence ships

- ✚ Mobilization of adequate number of manual, semi automatic and automatic welding machines, plate forming machinery, frame bending machinery, cranes for handling of hull assemblies and machineries, containerized stores for consumables and hardwares, containerized toilet blocks and containerized offices.

- ✚ Mobilization of workers barrack/accommodation facility with sanitary/ablution spaces outside yard premises and suitable accommodation for vendor's staff and officers.

- ✚ Adequate working capital facility to simultaneously construct two hulls/superstructure at a time as well as fitout two ships at a time.

- ✚ Adequate bank guarantee facility to receive mobilization advances as may be necessary.

3. The scope of work of the vendor shall include following,
 - a. Inclusive of the cost of providing all consumables for the jobs mentioned above.
 - b. Inclusive of the cost of equipments, tools and tackles, facilities, cranes etc. for execution of the jobs detailed above.
 - c. The piping rates shall be inclusive of the cost of consumables, gaskets, fasteners, clamps, pipes, valves and fittings i.e. on turnkey basis.
 - d. The machinery installation work shall be inclusive of fabrication of non integrated foundations, foundation bolts and chocking materials in case of exhaust piping, the cost is inclusive of insulation with an approved insulating material and cladding work as necessary.
4. Following documents are enclosed
 - a. Typical mid ship frame
 - b. Typical mid ship bulk head
 - c. Cardinal dates of the construction schedule
 - d. General Arrangement Plan
5. The vendors shall submit their offers as under,
 - a. For hull, per tonne of net steel fabricated. No additional charges shall be paid for fitment of outfits supplied by AAGL.
 - b. For superstructure, per tonne of net aluminum fabricated inclusive of fitment of outfits supplied by AAGL.
 - c. For engineering, LS rate for various equipments listed.
 - d. For piping, a schedule of rates on turnkey basis.

The payment terms may be proposed by the vendor on milestone basis, the payments claim not exceeding the prorata work carried out/contemplated. All milestone payments shall be made on certification by shipyard, class and WOT

6. The last date for receipt of offer shall be June 25, 2007 by 1700