

Chapter 5:

Procurement



5.1 Procurement Procedure

Defence Procurement Procedure prescribes a separate chapter on the indigenous Naval Ship Building Procedure as it was thought that Naval Shipbuilding, being a capital and technology intensive activity, does not fall into any one of the normal categories of procurement- “Buy”, “Buy and Make” & “Make” because elements of all these are present in the process of ship design and construction. Hence, it was considered necessary by the Ministry to have a separate procedure for acquisition of naval ships and Coast Guard vessels through indigenous design/ construction.

Procurement of indigenous weapons and related sensors under development or existing in service as well as, imported weapons and sensors, which exist on earlier platforms and have been performing satisfactorily and new imports, is being carried out by the shipyard as per Ministry of Defence guidelines. The procurement of all yard materials, equipment and associated fittings as well as machinery is to be in terms of approved guidelines of Department of Defence Production. Audit attempted to examine the economy and the efficiency

in the procurement of equipment done by the shipyards. Inefficiencies in the procurement process, besides having an impact upon construction also has a consequent impact on the cost of the equipment. Total project costs are also increased by the escalation of the 7.5 per cent profit element payable to the shipyard.

The shipyard initially prepares an equipment ordering schedule as part of the build strategy and indicates a requirement of Ordering Instructions (OI) for equipment from the Production Directorate (DND). The actual equipment procurement process starts with the NSQR (Naval Staff Qualitative Requirements) and based on the same the concerned professional directorate (DME/DEE/DWE/DNA) prepare the SOTR (Statement of Technical Requirements). The professional directorates issue SOTR along with the short listed vendors to the Production Directorate who in turn issues the OIs to the shipyard to take the procurement action for the equipment. The guiding factors for short listing of vendors and procurement of equipment are:

- ❖ Standardisation of proven equipment
- ❖ Reliability of proven equipments performance
- ❖ Self-reliance / indigenisation

The issues involved in selection and procurement of equipment/systems selected for detailed examination are detailed below.

5.2 Issues in Procurement

Nomination of Vendors by Navy

As explained above, the Navy nominates vendors for various equipment, weapons and sensors and the shipyard, in turn, procures them from the vendors. This process effectively restricts competition and lowers transparency. Out of 98 cases of major procurements of more than ₹ one crore each, amounting to ₹ 5869.85 crore selected for audit, it was noticed that in 50 cases PAC¹ was issued by the Navy. In these 50 cases, PAC status was accorded to M/s BEL in 25 cases. Out of the 25 procurements, in 14 cases involving procurement worth ₹ 1525.10 crore, the FE content was at ₹ 480.01 crore (Average 31.47

¹ Proprietary Article Certificate

per cent). Further the process followed for according PAC status to vendors left much to be desired as no open tendering system was generally followed before according the PAC certificate. It would therefore be a misnomer to give a PAC status to a vendor when there is no reasonable assurance that there are no other manufactures / suppliers of the similar weapons/sensors/equipment available in the country or abroad.

In remaining 48 cases of procurements, the multiple vendor nomination exists where in 30 cases (62.5 *per cent*) the nomination was restricted to two vendors, in 17 cases (35 *per cent*) nominations accounted for three to five firms and in one solitary case more than five vendors were considered. It would thus appear that in 80 out 98 cases of major procurements, there were only one or two vendors. In absence of open tendering procedure, the placement of orders in such a large number of cases on the basis of one or two vendors highlighted lack of transparency and accountability in the procurement process and was indicative of inadequate vendor base and competition.

Cases of lack of transparency in procurement, inadequate attempt to control procurement costs, non-availing of economics of scale by combining orders, non-imposition of liquidated damages and poor vendor management were noticed. Details follow:

Illustration 1 - Lack of competition

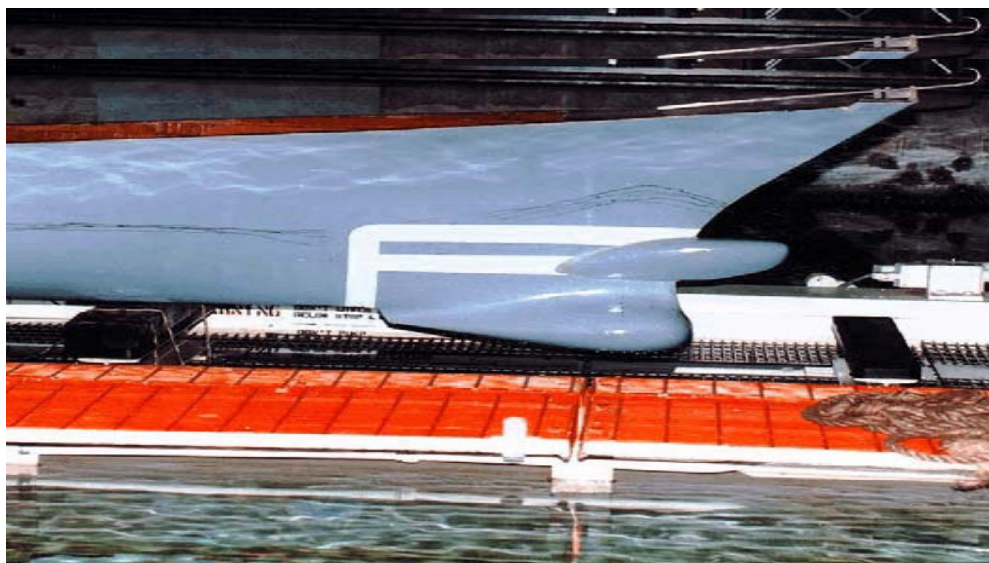
Navy, in January 2005, accorded approval for procuring an Auxiliary Control System² for the P15A ships from M/s Avrora Corporation, Russia. The single source of procurement was decided on the grounds of commonality and standardization since the propulsion system of the ship was also from the same firm. In August 2007, when the price bid was opened it was found that the vendor had quoted a price of ₹ 210 crore as against the estimate of ₹ 31 crore. On the insistence of the shipyard, the Navy agreed for re-tendering and provided four more vendors. Based on price negotiations, MDL placed an order on BHEL-Avio at a cost of ₹ 30.89 crore in December 2008. Incidentally, the quote of M/s Avrora in the second bidding was ₹ 114.8 crore.

² The purpose of the ACS is to provide centralized control and monitoring of the ships' auxiliary machinery, ship systems and Nuclear, Biological, Chemical Damage control and fire fighting system - Battle Damage Control System.

Thus, an element of competition led to lower costs. Standardisation as an argument carries weight; where system requirements have to be standardized, however, it is not always necessary to have single source / proprietary article procurements. Ironically, such nomination does not always lead to speedier procurement. In this case, technical discussions, re-tendering etc delayed ordering of the system by almost 24 months.

Illustration 2 - Absence of level playing field

Navy nominated three firms for the supply of the Bow Sonar Dome³ (BSD) for P15A ships. Though the SOR (Statement of Requirements) for the equipment had indicated that the dome shall have to withstand the loads acting independently at zero speed, however, the actual slamming pressure with the Kpa was not specified therein. The shipyard issued tenders in September 2004 and two firms M/s Atlas Elektronik Germany and M/s W&J Tod Ltd responded. As both firms



Bow Sonar Dome

had used different specifications⁴ for the slamming load with 210 Kpa and 500 Kpa, during technical negotiations, Navy gave an assurance to both the firms that it would confirm the exact slamming load at a later date. However it was noticed in audit that though both the firms were

³ A fixed hull outfit made of composite material which helps in reducing total ship resistance, improves propeller efficiency and cavitations performance. It also accommodates the sonar transducer and under water telephone.

⁴ Firm 'A' had quoted taking into the consideration slamming load of 210 KPa whereas firm 'B' quoted with 500 KPa load.

technically qualified, the confirmation was not conveyed. Firms submitted their commercial offer and firm 'A' became L1 as their quote was with a lesser slamming load. This had a significant commercial implication. Accordingly order was placed on firm 'A' in September 2006 at a cost of Euro 2.35 million (₹ 12.60 crore @ ₹ 53.63 per Euro). Audit noticed that during the procurement of similar equipment for P28 ships, firm 'B' was given the opportunity to submit the quote with the lower slamming load and thus became L1 competing with the same firm 'A'. Firm 'B' in July 2006 even offered to supply the equipment to MDL at the same price of £0.886 million (₹ 6.95 cr @ ₹ 78.42 per £) for the P15A ships. However Navy ignored the offer and thus had resulted in an avoidable additional burden to the tune of ₹ 5.65 crore. In response, Navy stated that both the firms were provided with same technical parameters for deriving the load. Both the firms followed different design approaches and load application methods. The contention of the Navy is not tenable as the slamming load was not confirmed to both the bidders in procurement of P15A.

Illustration 3 – Economies of scale

The Indian Navy seeks to maintain commonality in its on-board equipment among ships. As such, financial prudence would demand that Navy co-ordinate with shipyards in the procurements of these equipment. However, audit noted that no such co-ordination was in place.

SL. No.	EQUIPMENT	VENDOR	PROJECTS	COST (₹ IN CRORE)	REMARKS
1.	Indigenous Rocket Launcher (IRL) and Torpedo Tube Launcher (ITTL)	L&T	P28 and P15 A	125.30	The equipment is being considered for fitment on all new construction ships of the Indian Navy. MDL and GRSE both placed purchase orders on L&T for supply of the IRL and ITTL within a period of six months separately and lost the advantage of a combined price negotiations.

2.	LYNX U1	BEL	P28	400.00	The system was to be installed on the P28 ships and on three Godavari class of ships already operational in the Navy. Price negotiations were conducted separately within six months with variations in price between the two orders for first ship set resulting in the Navy's procurement higher by ₹ 0.76 crore for each ship set aggregating to ₹ 2.28 crore for three ship sets.
3.	Ring Laser Gyros	Sagem	P15A, P17 and P28	Euros 7,846,981	The prices, terms and conditions negotiated by MDL, GRSE and Indian Navy separately resulted in loss of Euros 6,22,284 (₹ 3.47 crore @ ₹ 55.87 per Euro).
4.	CCS MK III	BEL	P28	115.00	Orders were placed separately by Indian Navy and GRSE. GRSE did not avail benefit of excise duty exemption to the extent of ₹ 5.79 crore.

The above cases alone revealed an adverse financial impact to the extent of approximately ₹10.29 crore where Combined price negotiations would have opened an opportunity for more competitive prices in the procurement.

Illustration 4 - Poor Vendor Management

Audit noticed the following cases of poor vendor management. Collectively, these contracts were worth ₹ 275 crore approximately.

Case I: Delay in supply of Shaft Line system in P15A project

As per staff requirements, P15A ships were to be fitted with a shaft line system with propellers identical to P 15 ships. After tendering, an LOI was issued in April 2003 on the L-1 firm M/s Chernomorsky Zavod, (USE) Ukraine for three ship sets at a total amount of US\$ 13.42

million. Ship sets were to be delivered in March 2005, March 2006 and March 2007. Due to change in the management, the firm in June 2004 expressed its inability to fulfill the contract. However, MDL insisted that the firm fulfill its contractual obligations, even though Navy advised MDL to seek revalidation of the M/s FSUE Rosoboronexport (ROE) Offer in June 2004. Though MDL did forward a TE to ROE in August 2004, and Techno commercial offer was received from them in October 2005, no further action was taken despite reminders during the CPRMs in April 2005, January 2006 and April 2006.

Instead, MDL continued discussions with USE and against the firm's request for increase of 17 *per cent*, an increase of ten *per cent* was granted by MDL in January 2005. Nonetheless, the firm could not make the supplies and eventually, the ship was launched without completion of shaft related works in March 2006 and finally, in August 2006 MDL cancelled the contract citing non-fulfillment of contractual terms and conditions. After obtaining the DSA from M/s ROE in April 2006, the same was then signed in October 2006 at a cost of USD 20.40 million. Thus, due to delay in taking a decision on changing the vendor, the first ship was delayed by approximately one year and three months with consequential impact in terms of cost increase on the project as a whole.

Case II: Delay in the supply of air-conditioning and ventilation equipment

In January 2006, purchase orders were issued on York Marine System UK, costing £ 2.65 million for supply, installation and commissioning of air-conditioning and ventilation equipments package for each ship for P17 class. Audit noticed that the firm did not meet the delivery schedule of September 2006 and January 2007. Even the revised schedule of December 2006 and February 2007 was not adhered to and as of December 2009 except for the first ship the installation was pending for the remaining two ships. As a result in the intervening period the dehumidification and cooling for all the three under construction ships was carried out through outsourcing. Non-installation of HVAC system compelled the shipyard for hiring of dehumidification cum cooling services from M/s Technical Drying Services (Asia) Pvt. Ltd., Mumbai. Thus, due to delay in installation of HVAC system an amount of ₹ 4.15 crore was paid to the firm towards dehumidification and cooling which could have been avoided.

Case III: Poor Performance of a foreign vendor

Statement of Requirement (SOR) for air conditioning, equipment cooling and ventilation system equipment was formulated in February 2004 for P15A ships. In April 2004, Indian Navy nominated five firms including two foreign and three Indian firms. Out of the five, only two firms responded i.e. M/s Noske Kaeser Gmbh Germany and M/s York Maritime Systems, Essex. After technical/contractual negotiations held in April 2005, order was placed on M/s Noske Kaeser in September 2006 amounting to ₹ 67.39 crore (₹ 27.51 crore, ₹ 19.89 crore and ₹ 19.99 crore (1 Euro = ₹ 58.44)).

Though the firm supplied majority of equipment viz. ATUs, AFUs and HEs, various issues e.g. size of various equipments, incomplete and insufficient documentation, unacceptable large heaters and humidifiers, smoke clearance and chilled water system drawings etc. were pending resolution. However, in the meantime i.e. April 2009, the firm went into insolvency and in August 2009 shipyard cancelled the order. Belated commissioning of the system onboard will have weight and cost implications and the shipyard does not have expertise for designing the system to Navy shock standards.

Case IV: Placement of order on a foreign firm in spite of Poor supply record

For the P28 ships though the procurement process for the HVAC system commenced in February 2005 it could not proceed further as the estimate was found to be higher when compared with the rates for P17 ships. Thereafter it took two years to process the case and in August 2007 M/s York India was selected for the supply and installation of the system. Accordingly, in September 2007, purchase orders were placed on the firm at a cost of ₹ 65 crore for the supply of four ship sets.

Despite the fact that M/s York performed poorly while meeting the requirement of P17, the professional directorate nominated the firm for supplying the equipment for P28 ships. This is also corroborated with the poor progress made by the firm in meeting its commitments for delivery of the system for P28 ships. The delay has already led to a set back in the scheduled delivery of the Project-28 as the shipyard is finding it difficult to go forward with of other related activities.

Case V: Non receipt of LD of ₹ 26.69⁵ crore from the Russian firm

A number of Russian equipments for Project-17 were not received on time at the shipyard. Accordingly, approximate amount of USD 5.93 million (₹ 26.69⁶ crore) was recoverable from the Russian firm towards LD. However, no amount was received from the firm till date

Case VI: Avoidable expenditure of ₹ 3.98 crore

Integrated Headquarters, Ministry of Defence [IHQ MOD (Navy), in August 2004, nominated Bharat Electronics Limited (BEL) for the supply of Radar RAWL 02 MK-III for the Project-15A. During the Contract Negotiations Committee (CNC) meeting held between MDL and BEL in January 2006, BEL offered to absorb Exchange Rate Variation (ERV) up to ± 5 per cent. However, during the Price Negotiation Committee (PNC) meeting held in June 2006, MDL proposed that since 15 per cent advance payment was being made to BEL, ERV should be admissible only on 85 per cent of the order but BEL would have to absorb ERV only up to ± 2 per cent. While BEL accepted MDL's proposal of ERV condition (Up to ± 2 per cent), it insisted that ERV be made applicable on 100 per cent of order value. This resulted in an impasse which could not be resolved.

MDL, in August 2006, placed three orders on BEL for supply of Radar RAWL 02 MK-III at an aggregate cost of ₹ 136.69 crore plus taxes, with the standard condition of contract that ERV would be paid on actual. This led to additional expenditure of ₹ 3.98 crore, on account of exchange rate variations subsequently, in the procurement of Radar RAWL 02 MK-III. Audit noted that though the Indian Navy was a part of these negotiations and the additional expenditure would have to be ultimately borne by them, no effort was made by them to ensure that the more beneficial terms and conditions were accepted by the supplier leading to avoidable expenditure of ₹ 3.98 crore.

⁵ 1 USD = ₹ 45

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Recommendation

- ✓ *Navy need to expand their vendor base and should nominate more vendors so as to increase competition through an open transparent tendering system.*
- ✓ *Procurement of similar equipment for different projects should be in bulk quantity to avail competitive prices and bulk/volume discounts in the pricing.*