

CHAPTER-5

Cost Accounting of Refits and MLUs



Audit Objective: Whether an effective Cost Accounting System, in relation to refits of Naval Warships was in place?

5.1 Introduction

A mention has been made at paragraph 1.5 of Chapter 1 of this report regarding financial aspects of refits in Indian Navy, details of which are at Annexure II. We found that expenditure incurred on repair and refit activities in its entirety inclusive of expenditure on salaries, equipment, spares etc. used for repair/refit of ships is not reflected separately in the Defence Services Estimates. Segregated data on expenditure on repair/refit of surface ships, submarines etc. are also unavailable. Therefore, we made an effort to collect the expenditure booked under various heads. Our examination revealed that:

- i) The expenditure on account of pay & allowances does not in totality relate to refit of ships alone; as normally 60 *per cent* of available manpower in a dockyard is reckoned for refit load and the remaining 40 *per cent* is apportioned, for the Operational Jobs (10 *per cent*); for the maintenance and repair of yard services (20 *per cent*); for the shore establishment (5 *per cent*) and the remaining for yard crafts (5 *per cent*). In reality, however, actual manpower utilised varies from repair organisation to repair organisation. Thus, expenditure incurred on emoluments at dockyards / repair yards did not relate only to refit activity alone.
- ii) The expenditure incurred towards procurement of stores by IHQ MoD (Navy) and Material Organisations, for use in refits/repairs of ship was also not available separately, and was mixed with other procurements made by these agencies.
- iii) The stores for use in repair/refits of naval ships at dockyards are normally used from the existing inventory of stores with MOs/NDs. The value of these stores could not be ascertained as these had been purchased long back and a token value of ₹ 1.00

was reflected in Integrated Logistics Management System (ILMS) of Indian Navy.

Thus, total expenditure for the refits incurred in its totality was unavailable. However, expenditure incurred on refits was accounted for on the basis of cost accounting. The lacunae in the costing system followed in repair yards are discussed below.

5.2 Cost Accounting System in Dockyard

As brought out above, the Defence Services Estimates (DSEs) based on financial accounting do not provide details in an aggregated manner regarding the cost incurred or attributable to refits and MLUs. Therefore, existence of a robust and reliable costing system is essential to make available this information. The main objectives of cost accounting are ascertainment of cost, cost control, cost reduction and assistance in decision making. Costing also assists in identifying inefficiencies in operation.

While refit and repair of ships is the primary activity undertaken by the yards, there are a large number of related activities which are equally essential towards effective and accurate calculation of refit cost in particular, and the overall Yard's cost. To prepare Annual Accounts and expenditure records, it is essential to capture all expenditure that may be incurred including agencies other than dockyards such as MOs, Weapon Equipment Depots (WEDs) etc.



The cost accounting system required to be followed in NDs is laid down in Naval Dockyard Cost Accounting Instructions (NDCAI). Accordingly, Annual Works and Production Accounts (AWPA) are

prepared by the Cost Accounts Section (CAS) by 30th November of the following year, based on the inputs such as monthly labour abstract, material abstract, monthly miscellaneous abstract, cost cards etc. furnished by the dockyard.

All work connected with the preparation and audit of cost accounts is done in the Dockyard CAS manned by the staff of the Defence Accounts Department (DAD) working directly under a Gazetted Officer (GO) of the Department. For purpose of day to day administration of the Dockyard, the officer-in-charge of the CAS of the Dockyard is in direct touch with the ASD and is responsible for the correct and up to date provision of all accounting information and financial advice required by the ASD.



We noticed instances of non-preparation of AWPA in time, non-booking of expenditure on procurement of stores by different agencies, non-accounting of cost of work undertaken by fleet maintenance units, etc. as discussed in subsequent paragraphs.

5.3 Delay in preparation of AWPA

As mandated in NDCAI, the AWPA is to be prepared by the staff of DAD. We noticed that the AWPA of ND, Visakhapatnam was being prepared by the dockyard itself. In respect of ND, Mumbai, AWPA had not been prepared for the last two years viz. 2008-2009 and 2009-2010. Our further scrutiny showed that AWPAs upto the year 2009-10 could be prepared only by October 2013. However, AWPAs for subsequent years i.e. 2010-11 to 2012-13 were yet to be prepared (October 2013).

In response to our query, Principal Controller of Defence Account (Navy) stated (December 2010) that due to manpower constraints they were unable to prepare the AWP. The codal provisions with regard to preparation of AWP are, therefore, not being complied with.

5.4 Difficulties in ascertaining cost of a refit

To enable the CAS to prepare the AWP, the refitting yard has to send all primary documents that contain details about the pay and allowances of service officers and sailors to them. We noticed that pay and allowances of service officers and sailors in connection with refit activities were not booked in the AWP. ND, Visakhapatnam stated (October 2010) that they were not an independent repair industry as they function as an organization under Indian Naval hierarchy. The yard further stated that the cost incurred on refit of ships was also incurred by various other organisations based on budgetary allocation to those organisations by Naval HQ, therefore, expenditure on such allocations cannot form part of the costing procedures at ND Visakhapatnam.

The reply is not acceptable because as per provisions of NDCAI, pay and allowances of service personnel, contingent and miscellaneous expenses, conservancy charges, superannuation charges etc. are to be taken as fixed cost for the purpose of costing of refit so as to present an accurate and realistic AWP.

Our scrutiny (November 2010) revealed that the material cost (indirect and direct) booked in AWP of NDs also did not reflect the correct expenditure incurred on refits as cost of equipment / spares etc. supplied by the MOs did not figure in the booked expenditure of direct and indirect cost of materials. The expenditure booked on account of cost of equipment/spares supplied by the MOs in the AWPs during the period from 2005-06 to 2009-10 ranged from 4.63 to 7.41 *per cent* at Visakhapatnam and from 0.99 to 6.79 *per cent* at Mumbai, with reference to total in-house refit cost.

5.5 Delay in closing of work orders

In accordance with RPP, the refitting yard is required to open work order for each refit, 58 weeks and 30 weeks, prior to commencement of MR / NR and SR respectively. This facilitates the yard to raise demands for stores. Similarly, the Class of Ships Managers (COSM) is to close

work order, within four weeks and two weeks, from the date of completion of work in respect of MR/NR and SR respectively.

Our scrutiny revealed that there was delay in closing of work orders at Visakhapatnam in 12 out of a selected sample of 25 refits. The yard stated (October 2010) that the delay was attributable to non-working days, certain system related issues etc. and that the measures had been instituted to avoid recurrence of the same.

We examined 28 refits, carried out between 2005-2006 and 2009-2010 at ND, Mumbai and found that in 22 cases, the work orders had not been closed within the stipulated period. The delay ranged from 3 to 16 months. The delay in closing of work orders can lead to booking of expenditure even after completion of refits. As the refitting yards can raise demands for stores only after opening of work orders, it is essential that work orders are opened within the scheduled time so that the required stores can be demanded well in time. Further, closing of work order within stipulated time would facilitate in closure of accounts and preparation of AWPA in time.

5.6 Non-preparation of cost accounts

NSRY, Kochi, did not follow any cost accounting system for in-house refits. The yard was neither booking the cost of manpower utilised nor the cost of materials received from MO, Kochi. NSRY, Kochi stated (December 2010) that they did not have any qualified manpower to undertake costing and, therefore, cost of refit at NSRY, Kochi could not be determined. In the absence of any costing system, the cost effectiveness of refits carried out by NSRY, Kochi, could not be arrived at.

The IHQ MoD (Navy) stated (February 2012) that procedures for formulation of standard estimates in the yards have been addressed by convening a joint meeting with the PCDA. A policy letter to this effect was issued in December 2011 post concurrence of the PCDA. Our request (June 2012) to the IHQ for a copy of the policy letter was not responded to as of October 2013.

We also observed that the present system of costing being followed had the following lacunae:

- Non-implementation of revised NDCAI.

- Non-preparation of AWWPA which is to aid as a tool for preparation of estimates for the refit.
- Non-preparation of material estimate.
- Non-preparation of labour estimate.
- No estimate showing details of labour operation and material requirement to complete the refit and
- Non-accounting of actual cost of material consumed during refits.

We are, therefore, constrained to conclude that the current cost accounting system cannot be considered as an aid to the management to ascertain cost of a refit/MLU nor can it aid in estimation of cost for future refits.

Recommendations:

- Suitable cost accounting system should be designed and implemented in consultation with CGDA and professionals, in all NDs/NSRYs.
- The present system does not capture all costs incurred on the refits, such as cost of equipment, spares etc., pay & allowances of Officers posted at Repair Yards. This needs to be addressed in a comprehensive cost accounting system.