Chapter VIII: Pricing of Products and Cost Control

Audit objectives

Whether the cost of production of various items had been recovered in issue of the items to the Services through efficient pricing mechanism.

Source of audit criteria

- Pricing policy and mechanism;
- Targets for overheads fixed by OFB; and
- Cost estimates and actual cost of production.

8.1 General

The pricing policy of the OFB aims at recovering the entire cost of production in respect of items issued to the Services. The prices are estimated at the beginning of the financial year based on actual cost of the previous three years and the current trend in material, labour and overhead cost. After analysing these inputs received from the factories, OFB generally fix issue price of each item in advance before commencement of a year. In some cases, the issue prices for certain items are revised mid-year based on further inputs received from the factories. The Ministry permits OFB to limit the annual price increase up to eight *per cent* on overall basis with emphasis to keep this to a minimum.

We observed that instead of following a uniform formula, OFB used different yardsticks and adopted an ad-hoc approach for fixing issue prices of different products as under:

- based on OFB's calculation of estimated price considering a predetermined overhead percentage to estimated labour cost of the factory;
- average of the estimated cost of the factory and that of the OFB considering different labour rate and overhead percentage;

• equivalent to factory's proposed/estimated cost received at the fag end of the year for 2008-09 in respect of OEFC and for 2010-11 in respect of OEFH;

• determined after addition of eight to 15 *per cent* with last year's issue price; and

• at the same level of last year, as it was already 20 *per cent* more than the actual cost in the last year.

Thus, absence of sound pricing formula and non-adherence to the existing pricing policy led to incorrect fixation of issue prices by the OFB. This coupled with factories' failure to control cost resulted in recurring losses in OEFG in all four years. The rates were also exorbitantly high compared to market price for certain items, as discussed in the succeeding paragraphs.

8.1.1 Huge losses incurred by factories

OEFG sustained aggregate loss of ₹226.09 crore for issue of items to all the indentors during 2008-12. Details of factory-wise profit /loss are given in Table-34.

					(< in crore)
Factory	2008-09	2009-10	2010-11	2011-12	Total
OEFC	2.17	(-) 26.43	(-) 26.00	(-)42.84	(-) 93.10
OPF	1.16	2.76	(-) 4.09	(-)13.11	(-) 13.28
OCFS	(-) 13.90	(-) 46.93	(-) 37.67	(-)22.22	(-) 120.72
OCFA	(-) 14.21	(-) 7.76	(-) 5.15	(-)7.89	(-) 35.01
OEFH	3.16	5.84	12.97	14.05	36.02
Total	(-) 21.62	(-) 72.52	(-) 59.94	(-)72.01	(-) 226.09

Table-34: Factory-wise profit(+)/loss(-)

· **x** ·

The table indicates that only OEFH had earned profit in all four years, while OCFS and OCFA sustained loss in all four years. OPF and OEFC incurred loss in two and three years respectively. Despite this sub-optimal performance, OFB did not analyse the reasons for the persisting losses.

We analysed the issue prices of 65 items fixed by OFB with reference to the estimated cost of the factories and actual cost of production for the three years 2008-12 (**Annexure-VI**) and found that in 97 out of 121 instances, the issue prices fell short of the estimated cost by more than 10 *per cent* and up to 53 *per cent* in OEFC, OPF, OCFS and OCFA. Even the actual cost of production of these items had exceeded the issue prices by same percentages in 102 instances.

Despite the huge variations between the issue prices and the product cost, the OFB had not instituted any effective mechanism to analyse the reason for recurring loss year after year nor did it review the product profitability periodically in its meetings to take corrective measures.

Justifying the variations, OFB stated (April 2012) that prices were decided almost 18 months in advance of working out the actual cost of production. Hence, there were little variations and surplus/deficit became inevitable due to change in load/product-mix after finalisation of price, efforts undertaken by factories towards cost reduction and variation in market prices than those expected at the time of pricing. The reply did not explain as to how 10 to 53 *per cent* adverse variations between actual cost and issue price had occurred. The reply was also silent on the failure of the OFB to review the actual cost and issue prices periodically to ensure effective cost control and recovery of entire cost of production through pricing mechanism.

8.1.2 Exorbitant price of OEFG's items compared to market rates

We observed that in respect of OCFS during 2009-10, actual cost of nine items was more than the estimated cost by 6 to 41 *per cent*. Against the factory cost of Trouser PW PC Khaki and Vest Woollen FS of ₹772 (in 2008-09) and ₹632 (in 2010-11) respectively in OCFA and OCFS, COD Kanpur procured these items at ₹195 and ₹122 respectively in 2009-10, revealing that the cost of these two OEFG items were as high as 396 and 518 *per cent* of the market rate. Further, as mentioned in Paragraph 5.5, the Director General, Sashastra Seema Bal had observed that the rates of OEFG produced items were as high as 300 *per cent* compared to market rates. This clearly indicates that lack of cost control made the product-mix un-remunerative and non-competitive.

8.2 High overheads and labour charges in cost of production

8.2.1 Overhead charges

Cost of production comprises direct material, direct labour and overheads. Overheads charged in ordnance factory include indirect labour cost, indirect stores, supervision, electricity, transportation, depreciation, *etc*.

OFB fixed (May 2006) a target for overheads as a percentage of direct labour charges for OEFC, OPF, OCFS, OCFA and OEFH at 120, 164, 115, 175 and 175 respectively for 2006-07. OFB did not fix any such target for the subsequent years for which no reason was recorded. Even on the basis of target for 2006-07, the actual percentage of overheads to direct labour charges was higher in 2008-09 in respect of OEFC, OPF, OCFS and OCFA at 154, 196, 158 and 178 while the same for OEFH was 150 *i.e.* less than the target at 175. In 2009-10, the position had improved in respect of all factories except OEFC where the percentage of overheads was higher than the target at 164. In 2010-11, the percentage of overheads was less than the target in all the factories, while in 2011-12, the percentage of overheads was more than the target for OEFC and OCFS.

Further, the percentage of overheads to the cost of production for the OEFG was higher ranging from 34 to 33 than 31 to 26 *per cent* relating to Ordnance factories as a whole, as detailed in Table-35.

Year	OEFC	OPF	OCFS	OCFA	OEFH	OEFG	OF Organisation
2008-09	26	37	40	41	37	34	30
2009-10	30	34	38	39	33	34	31
2010-11	28	39	33	39	32	33	27
2011-12	30	35	35	34	32	33	26

 Table-35: Factory-wise percentage of overhead to cost of production

Amongst the five factories, the extent of overheads at OCFA was highest in the range of 34 to 41 *per cent* during 2008-12. High incidence of overhead (41 *per cent*) at OCFA in 2008-09 was mainly due to high indirect labour (90 *per cent*) and supervision charges (72 *per cent*) as compared to direct labour.

OFB stated in April 2012 that the overheads were higher in OEFG as they are labour intensive units and the labour cost had increased due to implementation of the Sixth Central Pay Commission's recommendations. It did not explain the significantly higher rate of overhead charges in OCFA.

8.2.2 Labour charges

Details of cost of production and labour cost of OEFG vis-a-vis OF organisation as a whole are depicted in Table-36.

						•	(₹ in c	rore)
Year	Cost of production (COP)		Percentage of share in	Labour cost		Percentage of share in	Percentage of labour to COP	
	OF	OEFG	OEFG	OF	OEFG	OEFG	OF	OEFG
	orgn.			orgn.			orgn.	
2008-09	10610.40	659.55	6	768.10	136.35	18	7	21
2009-10	11817.89	669.00	6	1102.19	173.48	16	9	26
2010-11	14012.12	855.08	6	1318.41	237.25	18	9	28
2011-12	15933.44	961.17	6	1490.10	260.52	17	9	27

Table- 36: Labour cost vis-a-vis cost of production

Analysis of the tabulated data reveals that OEFG had the share of only 6 *per cent* of the cost of production every year, being lowest among all the groups. In contrast, it accounted for 16 to 18 *per cent* of the direct labour cost of ordnance factories as a whole during 2008-09 to 2011-12. Further, though the percentage of labour cost to cost of production in ordnance factories as a whole ranged between 7 and 9 *per cent*, the same in OEFG ranged between 21

and 28 *per cent* during 2008-12 despite modernisation through procurement of CNC^{18} machines.

8.3 Wide variation in cost of production of common items

We compared the cost of production of common items manufactured in two factories and observed wide variations in unit cost of production comprising material, labour and overhead as depicted in Table-37.

cost variationcost<	Item	Factory	Material	Percentage	Labour	Percentage	Overhead	Percentage	
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			236.01	169		2145	17.68	1670	
		OEFC	635.97		233.49		312.93		

Table-37: Variations in cost of production of common items

Source: Annual Accounts of Ordnance and Ordnance Equipment Factories

¹⁸ Induction of Computerised Numerically Controlled machines is expected to achieve savings in terms of reduction of material and labour cost

The table shows inexplicable variations in labour and overhead cost of common items ranging up to 3039 *per cent* and 2174 *per cent* respectively. Similarly, material cost in 11 out of 16 instances widely varied between 13 and 5581 *per cent*. Further, even in the same factory *viz*. OEFH, material cost for Tent 4M showed an abnormal increase within one year from ₹409 in 2009-10 to ₹39477 in 2010-11. The Factory management/OEF HQ did not analyse this wide variation.

In response to the query on huge variation (9552 *per cent¹⁹*) in material cost of OEFH, Accounts Office of OEFH stated (July 2012) that the value of material was booked on the basis of documents forwarded by the factory management. They, however, added that the factory management assured that such type of irregularities would be avoided in future. The reply itself indicates that the Accounts Office did not verify the documents before booking the cost of materials.

Compared to higher cost at one factory with the cost at another factory, there was extra financial burden of ₹105.47 crore in 16 instances (**Annexure-VII**).

Ministry's reply and our remarks thereon are indicated in Table-38.

Ministry's reply	Audit remarks
OEFC : Data given by Audit appeared to be incorrect.	We adopted the cost data from Annual
Overhead and labour cost would differ from factory to	Accounts of OF Organisation. Besides, the
factory.	Ministry had not furnished any correct
	data to us while contending the figures.
OEFH : Transfer vouchers for labour and material were	The reply itself indicated the deficiency in
not considered by Accounts Office while preparing	accounting the different cost components
Annual Accounts for 2009-10. This led to wide variation	without proper reconciliation and setting
in cost for Air Force items in that year. For balance items,	right the linking mistakes between the
difference was due to compilation and linking mistakes.	factory management and the Accounts
	office of the factories. Reply did not
	indicate corrective actions taken to
	compile the accounts based on reliable
	cost data.
OCFA : In general, higher labour and overhead cost was	Trade assistance or higher house
due to difference in house rent and transport allowance as	rent/transport allowance in one factory
OCFA is under A-1 city. For Jacket and Trouser, the	cannot justify huge variation in labour and
material cost of OEFH could not be less than that of	overhead cost up to 3039 per cent and
OCFA as the latter is the nodal factory for basic material.	2174 per cent in two different factories.
It needs to be reconciled. For fly outer 4M, the labour and	Reply does not indicate any reason for
overhead cost is less as the factory outsourced the same	such huge variation and corrective actions
due to huge load.	taken to set right such variations.
OCFS : Labour and overhead cost in manufacture of	
trouser was higher compared to that of OEFH as the item	
might have been manufactured through trade in OEFH.	

Table- 38: Ministry's reply and audit remarks

¹⁹ Material cost of Tent 4M in 2009-10 = ₹409

Material cost of Tent 4M i	n 2010-11 = ₹39477
Inorance	— ₹20068

Percentage of increase =	= 39068 x 100/409 = 9552

8.4 Audit conclusion

The system of booking of expenditure merely on the basis of documents forwarded by the factory management without adequate checking by the Accounts Office led to irregular accounting of expenditure and unreliable cost data. Deficient pricing mechanism coupled with ineffective cost control led to recurring loss in issue of the products to the indentors every year, aggregating to ₹226.09 crore during 2008-12 as given in Table 34. This apart, abnormal variation in material and labour cost for common items produced in two factories resulted in extra financial burden of ₹105.47 crore in 16 instances.

Recommendation 16

Ministry may ensure that OEFG generate reliable cost data for enforcing strict cost control on the products.