CHAPTER VIII : ORDNANCE FACTORY ORGANISATION

8.1 **Performance of Ordnance Factory Organisation**

8.1.1 Introduction

Ordnance Factory Board (OFB) functions under the administrative control of the Department of Defence Production and Supplies of Ministry of Defence and is headed by Director General, Ordnance Factories.

There are 39 factories divided into five product-based Operating Groups/Divisions, as given below:

Sl.No.	Name of Group	No. of Factory
i)	Ammunition & Explosives	10
ii)	Weapons, Vehicles and Equipment	10
iii)	Materials and Components	9
iv)	Armoured Vehicles	5
v)	Ordnance Equipment (Clothing & General	5
-	Stores)	

On functional basis, the factories are also classified as shown below:

Sl. No.	Name of Group	No. of factories
1.	Metallurgical	6
2.	Engineering	18
3.	Filling	5
4.	Chemical	4
5.	Equipment and clothing	6

A new propellant factory at Rajgir in Nalanda District of Bihar State has been sanctioned at a total project cost of Rs 941.13 crore work for which is under progress and Rs 207.89 crore has been incurred up to March 2004. At present 904 principal items are produced in these 39 factories, which cover nearly 75 *per cent* of gross value of production, with a man-power of 1.22 lakh employees.

8.1.2 Analysis of performance of OFB

Revenue expenditure

The expenditure under revenue head during 1999-2000 to 2003-2004 is given in the table below:

					(Rupees in crore)
Year	Total expenditure incurred by ordnance factories	Receipts against products supplied to Armed Forces	Other receipts and recoveries	Total receipts	Net expenditure of ordnance factories
1	2	3	4	5	6 (2-5)
1999-2000	4994.88	5124.43	700.61	5825.04	(-) 830.16
2000-2001	6016.94	5209.17	839.54	6048.71	(-) 31.77
2001-2002	6025.11	5493.15	1102.79	6595.94	(-) 570.83
2002-2003	6464.80	5796.10	1199.21	6995.31	(-) 530.51
2003-2004	6661.56	5698.14	1289.18 *	6987.32	(-) 325.76

Though the total receipts during 2003-2004 decreased by 0.11 *per cent* as compared to the previous year, the total expenditure increased by 3.04 *per cent*.

Value of production

The following table indicates the group-wise/ element-wise break up of expenditure incurred during the year to arrive at the value of production for 2003-04 and percentage of various elements to the value of production:

(Runees in crore)

								(Kupt	es in crore)
Sl. No.	Name of the Group	Value of	Direct Store and % to	Value added and	DL and % to value of		Overhe	ad charges	
110.	Group	production	value of production	% to value of production	production	IDL and % to value of production	IDS and % to value of production	Other expenditure [•] % to value of production	Total over heads & % to value of production
1	Material &	1060.01	414.46		99.59	143.52			545.96
	Component Group		(39.10)	(60.90)	(9.40)	(13.54)	(8.24)	(29.72)	(51.51)
2	Weapon,	2182.43	1281.98	900.45	167.28	218.19	115.14	399.84	733.17
	Vehicle and		(58.74)	(41.26)	(7.66)	(10.00)	(5.28)	(18.32)	(33.59)
	Equipment Group								
3	Ammunition	2798.03	2096.12	701.91	126.35	170.54	115.52	289.50	575.56
	and Explosive Group		(74.91)	(25.09)	(4.52)	(6.10)	(4.13)	(10.35)	(20.57)
4	Armoured	1567.13	1213.61	353.52	48.05	57.57	50.77	197.13	305.47
	Vehicle		(77.44)	(22.56)	(3.07)	(3.67)	(3.24)	(12.58)	(19.49)
	Group								
5	Ord. Equip-	645.45	396.13	249.32	95.91	57.58		79.74	153.41
	ment Group		(61.37)	(38.63)	(14.86)	(8.92)		(12.35)	(23.77)
	Total	8253.05	5402.30		537.18	647.40	384.88	1281.29	2313.57
			(65.46)	(34.54)	(6.51)	(7.84)	(4.66)	(15.53)	(28.03)

During 2003-04, the total value of production was Rs 8253.05 crore with 65.46 *per cent* direct material, 6.51 *per cent* direct labour and 28.03 *per cent* overheads. Ammunition & Explosive group of factories registered the highest value of

[•] Other receipts and recoveries include receipt on account of transfer from RR funds, sale of surplus/obsolete stores, issues to MHA including Police, Central and State Governments, Civil trade including Public Sector Undertaking, export and other miscellaneous receipt.

^{*} Other expenditure includes supervision charges, contingent charges, superannuation charges, depreciation charges, transportation charges, and cost of DGOF, cost of DAD charges and other miscellaneous charges.

production of Rs 2798.03 crore with material 74.91 *per cent*, labour 4.52 *per cent* and 20.57 *per cent* overhead while OEF Group of factories registered the lowest value of production of Rs 645.45 crore with 61.37 *per cent* material, 14.86 *per cent* labour and 23.77 *per cent* overhead. Average overhead charges of the OFB Organisation were 28.03 *per cent*. While Material & Component Group registered the highest at 51.51 *per cent* and Armoured Vehicle Group registered the lowest at 19.49 *per cent*, the direct labour and indirect labour percentage to the value of production overall was 6.51 *per cent* and 7.84 *per cent* respectively.

Production programme

Production programme for ammunition, weapon & vehicle, material & component and armoured vehicle items are fixed for one year, while four-yearly production programme is fixed for equipment items. Production of several items for which targets had been fixed by Ordnance Factory Board was behind schedule. Details showing the items for which demands existed, target was fixed and the number of items in respect of which production was behind schedule during the last five years are shown below:

Year	No of items for which demands existed	No of items for which target fixed	No. of items manufactured as per target	No. of items for which target fixed but production was behind schedule
1999-2000	364	307	238	69
2000-2001	375	284	196	88
2001-2002	423	344	265	79
2002-2003	431	354	278	76
2003-2004	462	368	270	98

According to the Ministry of Defence, the delay in production was attributed to various factors, individually and/or collectively, as follows:

- a) Late finalisation of annual target.
- b) Delay in placement of covering indents.
- c) Delay in issuing clearance of designs and other particulars from respective Authority Holding Sealed Particulars in case of new items.
- d) Modification of designs for existing items.
- e) Sudden increase in target by the indentors in the middle of the financial year.
- f) Urgency shown by some indentors for some particular items with enhanced target, affecting the target of same items for other indentors.
- g) Unforeseen problem and delay in development for some items.
- h) Delay in inspection proof and acceptance.
- *i*) Long lead time required in procurement of some input materials particularly in case of imported ones, after receipt of indent.

Spill over production

It was noticed that during the financial year 2003-2004, although the full production and issues as per target were reported in respect of 23 major items, their actual production spilled over beyond March 2004. The production and actual issues in respect of 11 out of 23 items were yet to be completed as of June 2004. The value of spill over items for the year 2003-2004 was Rs 412.87 crore out of the total value of production of Rs 8253.03 crore as against Rs 347.21 crore reported for the year 2002-03 out of total value of production of Rs 7908.69 crore. The percentage of spill over items to the value of production went up from 4.39 *per cent* in 2002-03 to five *per cent* in 2003-04.

Issue to users

The indentor-wise value of issues during the last five years was as under:

				(Rupee	es in crore)
Name of Indentors	1999-2000	2000-01	2001-02	2002-03	2003-04
Army	4637.33	4544.74	4870.67	5215.53	5121.04
Navy	85.24	86.93	84.81	71.27	66.84
Air Force	105.80	170.63	193.17	226.29	229.59
MES, Research and Development (Other Defence Department)	126.41	124.83	162.89	150.38	95.25
Total Defence	4954.78	4927.13	5311.54	5663.47	5512.72
Civil Trade and Export	498.96	603.07	719.35	840.20	972.24
Total issues	5453.74	5530.20	6030.89	6503.67	6484.96

8.1.3 Civil Trade and Export

Civil Trade

The ordnance factories undertook civil trade as a corporate policy in July 1986 for optimal utilisation of capacities and to lessen dependence on budgetary support. The turnover from civil trade other than supplies to the Ministry of Home Affairs and State Police Departments during 1999-2000 to 2003-04 was as under:

				(Rupees in crore)
Year	Number of	Target	Achievement	Percentage of
	factories involved			achievement
1999-2000	38	206.49	206.38	99.95
2000-2001	38	220.22	235.72	107.04
2001-2002	38	245.00	272.56	111.25
2002-2003	38	298.00	274.19	92.01
2003-2004	34	278.30	278.71	100.15

Export

The following table shows the achievement with reference to target in export from 1999-2000 to 2003-2004:

Year	Factories involved	Target	Achievement	Percentage of achievement
1999-2000	11	8.50	6.19	72.82
2000-2001	15	10.00	11.79	117.90
2001-2002	15	35.00	35.32	100.91
2002-2003	17	60.00	59.52	99.20
2003-2004	16	90.50	103.00	113.81

(Rupees in crore)

Thus, the targets set for civil trade and export during the year 2003-04 were fully achieved by ordnance factory organisation.

8.1.4 Inventory management

Stock holdings

As per the existing provisioning policy, the ordnance factories are authorised to hold stock of different types of stores as under:

Sl. No	Types of stores	Months requirement to be held in stock
1.	Imported items	12 months
2.	Difficult indigenous items	9 months
3.	Other indigenous items	6 months

Status of inventory holding

The position of <u>total inventory holdings</u> during 1999-2000 to 2003-2004 was as under:

					(Rupee	s in crore)
Sl.	Particulars	1999-00	2000-01	2001-02	2002-03	2003-04
No.						
1.	Working stock					
a.	Active	1590.70	1640.35	1747.65	1497.63	1524.88
b.	Non-moving	139.26	157.50	146.91	220.02	196.46
c.	Slow moving	105.78	129.11	169.04	232.99	215.01
	Total Working Stock	1835.74	1926.96	2063.60	1950.64	1936.35
2	Waste & Obsolete	31.57	9.36	4.99	13.80	15.94
3.	Surplus/ Scrap	38.59	59.29	73.33	34.51	47.16
4.	Maintenance stores	80.63	87.37	75.60	75.49	93.20
	Total	1986.53	2082.98	2217.52	2074.44	2092.65
5.	Average holdings in terms of number of days' consumption	158	162	155	144	127
6.	Percentage of total slow- moving and non-moving stock to total working stock	13.34	14.87	15.31	23.22	21.25

Average holding in terms of number of day's consumption was within normal limits during 2003-2004

Position of <u>Finished stock holding</u> (completed articles and components) during the last five years was as under:

				(Rupees	s in crore)
Particulars	1999-2000	2000-01	2001-02	2002-03	2003-04
Holding of Finished articles	89.33	90.75	131.62	93.52	132.66
Total value of production	7086.49	7224.11	7612.07	7908.69	8253.05
Holding of finished stock in terms of no. of days issue	4	4	6	4	6
Holding in terms of percentage of total value of production	1.26	1.17	1.72	1.18	1.61
Finished component holding	483.79	519.63	471.28	390.73	429.45
Holding of finished components in terms of no. of days consumption	124	143	100	32	63

As on 31 March 2004 the values of finished stock holding and finished component holding increased by 41.85 *per cent* and 31 days consumption respectively as compared to the position as of March 2003.

Work- in- progress

The General Manager of an Ordnance Factory authorises a production shop to manufacture an item in the given quantity by issue of warrant, whose normal life is six months. Unfinished items pertaining to different warrants lying at the shop floor constitute work in progress. The position of work in progress during the last five years is as follows:

(Rupees in crore)

As on 31 March	Value of work in progress
2000	1049.00
2001	1052.00
2002	1065. 33
2003	1032. 87
2004	1479. 29

The total value of work-in-progress as on 31 March 2004 increased by 43.22 *per cent* as compared to the previous year. The details regarding yearwise position of outstanding warrants were called for from Principal Controller of Accounts (Fys.), Kolkata but could not be made available to audit.

8.1.5 Losses written off

					(Rupe	es in lakh)
Sl. No.	Particulars	1999-00	2000-01	2001-02	2002-03	2003-04
1	Over issue of pay & allowances and claims abandoned	3.20	6.83	27.00	0.00	32.07
2	Losses due to theft, fraud or neglect	5.77	0.79	13.12	32.32	-
3	Losses due to deficiencies in actual balance not caused by theft, fraud or neglect	0.27	6.51	5.26	25.14	1.38
4	Losses in transit	44.97	39.07	5.33	14.74	2.40
5	Other causes (e.g conditioning of stores not caused by defective storage, stores scrapped due to obsolescence, etc.)	54.86	119.70	8.28	31.60	48 . 59
6	Defective storage loss	0.68	0.58	20.42	2.21	0.04
7	Manufacturing Losses	595.93	603.19	775.57	1061.85	643.24
	Total	705.68	776.67	854.98	1167.86	727.72

The table below depicts losses written off by competent financial authorities:

As of March 2004, 163 cases of losses amounting to Rs 36.07 crore were awaiting regularisation by the Ministry of Defence for more than one year. The oldest item relates to 1964-65.

8.1.6 Manpower

Employees of the Ordnance Factory Organisation are classified as (i) "Officers", who man senior supervisory levels, (ii) "Non-Gazetted" (NGO) or "Non-Industrial" (NIEs) employees who man junior supervisory levels & clerical establishment and (iii) "Industrial Employees" (IEs), who are engaged in the production and maintenance operations. The number of employees of various categories during the last five years is given in the table below:

5				(in l	numbers)
Category of employees	1999-00	2000-01	2001-02	2002-03	2003-04
Officers	4043	3853	3863	4119	4000
Percentage of officers to total manpower	2.77	2.77	2.90	3.24	3.27
NGO/NIEs	42334	40792	38883	36893	35247
Percentage of NGOs/NIEs to total manpower	28.98	29.29	29.21	28.97	28.84
IEs	99693	94611	90347	86303	82965
Percentage of IEs to total manpower	68.25	67.94	67.88	67.79	67.89
Total	146070	139256	133093	127315	122212

8.1.7 Capacity utilisation

The table below indicates the extent to which the capacity had been utilised in terms of Machine Hours during the last five years:

		(Unit in lakh hours)
Year	Machine hours available	Machine hours utilised
1999-2000	1875	1368
2000-2001	2144	1715
2001-2002	1923	1427
2002-2003	1824	1356
2003-2004	1734	1311

(Capacity utilisation in terms of Machine Hours)

8.1.8 Analysis of value of Production

Overhead Charges

The details of overheads in relation to value of production in respect of various ordnance factories during the last five years from 1999-2000 to 2003-2004 are shown below:

	(Rupees in crore								
Division	Year	FOH	VOH	Total OH Charges	Value of production	Percentage of OH to Value of production			
Materials and Components	1999-2000 2000-2001 2001-2002 2002-2003 2003-2004	242.06 252.18 265.31 269.63 285.62	235.17 250.67 255.09 267.39 260.34	477.23 502.85 520.40 537.02 545.96	941.57 1008.91 1064.54 1155.50 1060.01	50.68 49.84 48.88 46.48 51.50			
Weapons, Vehicles and Equipment	1999-2000 2000-2001 2001-2002 2002-2003 2003-2004	444.70 471.77 460.31 444.99 447.03	271.40 292.39 284.89 323.56 286.14	716.10 764.16 745.20 768.55 733.17	1765.37 1926.40 1960.94 2168.29 2182.43	40.56 39.67 38.00 35.45 33.59			
Ammunitions and Explosives	1999-2000 2000-2001 2001-2002 2002-2003 2003-2004	322.90 374.22 361.50 317.12 365.82	193.86 211.81 208.19 260.39 209.74	516.76 586.03 569.69 577.51 575.56	2686.98 2976.20 3217.14 3159.82 2798.03	19.23 19.69 17.70 18.28 20.57			
Armoured Vehicles	1999-2000 2000-2001 2001-2002 2002-2003 2003-2004	226.03 196.20 205.31 178.63 212.71	115.16 97.07 93.29 82.71 92.76	341.19 293.27 298.60 261.34 305.47	1185.59 768.00 803.12 840.49 1567.13	28.78 38.18 37.18 31.09 19.49			

Division	Year	FOH	VOH	Total OH Charges	Value of production	Percentage of OH to Value of production
Ordnance Equipment Factories	1999-2000 2000-2001 2001-2002 2002-2003 2003-2004	83.53 94.93 88.12 91.30 96.33	61.44 58.66 54.44 53.37 57.07	144.97 153.59 142.56 144.67 153.40	506.99 544.58 566.33 584.59 645.45	28.59 28.20 25.17 24.75 23.77
Grand total - Ordnance Factories as a whole	1999-2000 2000-2001 2001-2002 2002-2003 2003-2004	1319.22 1389.31 1380.57 1301.67 1407.52	877.03 910.60 895.91 987.42 906.05	2196.25 2299.91 2276.48 2289.09 2313.57	7086.50 7224.11 7612.07 7908.69 8253.05	31.00 31.84 29.90 28.94 28.03

(Rupees in crore)

It would be seen from the table above that the percentage of overheads to the value of production was more in respect of factories classified under M&C Division where overheads formed 46 to 51 *per cent* of the value of production.

Man power

The details of direct labour, indirect labour, total wages, supervision charges, ratio of supervision charges to total wages and the ratio of supervision charges to direct labour in respect of various ordnance factories (division-wise) as well as for ordnance factories as a whole during the last five years from 1999-2000 to 2003-2004 are shown below:

(Kupees in Cro							
Division	Year	Direct Labour	Indirect Labour	Total wages	Supervision charges	Ratio of Supervision charges to total wages	Ratio of Supervision charges to direct labour
Materials and Components	1999-00 2000-01 2001-02 2002-03 2003-04	74.89 92.98 99.12 105.68 100.32	130.36 133.57 127.52 127.33 143.51	205.25 226.55 226.64 233.01 243.83	105.59 116.64 117.63 120.18 117.15	0.51:1 0.51:1 0.51:1 0.51:1 0.51:1 0.48:1	1.41:1 1.25:1 1.18:1 1.13:1 1.17:1
Weapons, Vehicles and Equipment.	1999-00 2000-01 2001-02 2002-03 2003-04	124.67 157.18 166.41 167.95 168.75	215.95 223.22 212.94 206.43 218.19	340.62 380.40 379.35 374.38 386.94	197.63 210.64 202.19 207.93 202.76	0.58:1 0.55:1 0.53:1 0.55:1 0.52:1	1.58:1 1.34:1 1.21:1 1.23:1 1.20:1
Ammunitions and Explosives	1999-00 2000-01 2001-02 2002-03 2003-04	107.91 140.16 152.73 156.39 156.67	155.27 161.72 160.68 175.64 170.54	263.18 301.88 313.41 332.03 327.21	181.20 195.83 201.66 203.76 208.87	0.68:1 0.65:1 0.64:1 0.61:1 0.64:1	1.68:1 1.39:1 1.32:1 1.30:1 1.33:1

(Rupees in crore)

(Rupees in crore)

Division	Year	Direct Labour	Indirect Labour	Total wages	Supervision charges	Ratio of Supervision charges to total wages	Ratio of Supervision charges to direct labour
Armoured Vehicles	1999-00 2000-01 2001-02	41.33 43.81 43.67	45.75 50.71 48.59	87.08 94.52 92.26	69.14 72.11 73.07	0.79:1 0.76:1 0.79:1	1.67:1 1.64:1 1.67:1
	2002-03 2003-04	45.15 47.23	54.56 57.57	99.71 104.80	80.02 81.35	0.80:1 0.78:1	1.77:1 1.72:1
Ordnance Equipment Factories	1999-00 2000-01 2001-02 2002-03 2003-04	76.20 91.67 93.15 97.29 95.84	57.00 55.60 48.66 51.85 57.58	133.20 147.27 141.81 149.14 153.42	43.91 52.16 45.68 46.22 44.17	0.32:1 0.35 :1 0.32:1 0.31:1 0.29:1	0.57:1 0.57:1 0.49:1 0.47:1 0.46:1
Grand total - Ordnance Factories as a whole	1999-00 2000-01 2001-02 2002-03 2003-04	425.00 525.80 555.08 572.46 568.81	604.33 624.82 598.39 615.81 647.39	1029.33 1150.62 1153.47 1188.27 1216.20	597.47 647.38 640.24 658.11 654.30	0.58:1 0.56:1 0.55:1 0.55:1 0.54:1	1.40:1 1.23:1 1.15:1 1.15:1 1.15:1

8.2 Performance of Ordnance Equipment Group of factories

8.2.1 Highlights

• Despite unutilised standard man-hours, the management of Ordnance Clothing Factory Avadi and Ordnance Clothing Factory Shahjahanpur paid overtime of Rs 22.99 crore, out of which Rs 16.81 crore was largely avoidable with effective utilisation of man-hours.

(Paragraph 8.2.5)

• Ordnance Equipment Factories Group Headquarters overstated the figures of production and issues of certain items in the Achievement Reports though all the items were not actually manufactured and issued during the particular years.

(Paragraph 8.2.6)

• Despite the Ordnance Factory Board's assurance to minimize the spillover production, it sharply increased from Rs 16.73 crore in 1999-2000 to Rs 171.92 crore in 2003-04.

(Paragraph 8.2.6)

• Material and labour cost of the same items produced by two or more factories varied significantly. Compared to the lowest cost of material and labour charged by one of the factories producing similar items, the implications in terms of expenditure were Rs 62.96 crore in respect of 28 items test checked.

(Paragraph 8.2.6)

• The management of Ordnance Clothing Factory Shahjahanpur and Ordnance Parachute Factory Kanpur created excess capacity with reference to the existing workload by way of procurement of 56 socks knitting machines.

(Paragraph 8.2.10)

• The management of Ordnance Equipment Factory Hazratpur and Ordnance Clothing Factory Avadi failed to obtain good value for money from an investment of Rs 2.23 crore for line concept/assembly systems due to low output of the system in the former and non-commissioning of the equipment in the latter.

(Paragraph 8.2.11)

8.2.2 Introduction

Ordnance Equipment Factories Group comprises five factories of Ordnance Equipment Factory Kanpur, Ordnance Clothing Factory Shahjahanpur, Ordnance Clothing Factory Avadi, Ordnance Parachute Factory Kanpur and Ordnance Equipment Factory Hazratpur. These factories are under the control of Ordnance Equipment Factories Group Headquarters at Kanpur which is headed by a Member of the Ordnance Factory Board. These factories meet the requirements of the Armed Forces for clothing items, combat uniforms, parachutes, tents, boot-ankles, blankets and mosquito-nets etc.

8.2.3 Scope of audit

Performance audit of the Ordnance Equipment Group of factories for the period 1999-2000 to 2003-04 was conducted during February – June 2004 through test check of documents maintained by the factories and Ordnance Equipment Factories Group Headquarters, Kanpur.

8.2.4 Audit objectives

The overall objective of audit was to assess the extent to which the Ordnance Equipment Group of factories are functioning efficiently, economically and effectively to meet the requirement of the Services.

8.2.5 Capacity utilisation

Machine-hours

The annual availability of machine-hours is computed on the basis of average number of machines held in production section multiplied by 3840 working hours. Percentages of utilisation of available machine-hours in respect of the five factories during 1999-2000 to 2003-04 were as under:

Name of the Factory	Percent	age of utili	sation of	machine-l	hours
	1999-2000	2000-01	2001-02	2002-03	2003-04
Ordnance Clothing Factory Shahjahanpur	38	50	51	49	18
Ordnance Equipment Factory Kanpur	62	62	62	62	62
Ordnance Clothing Factory Avadi	68	65	63	66	69
Ordnance Parachute Factory Kanpur	100	68	76	54	53
Ordnance Equipment Factory Hazratpur	113	87	87	70	68

The utilisation of machine-hours was generally unsatisfactory. In particular the machine-hour utilisation in Ordnance Clothing Factory Shahjahanpur was consistently low, at 18 to 51 *per cent*. In Ordnance Parachute Factory Kanpur, the utilisation was declining and touched a low of 54 and 53 *per cent* during 2002-03 and 2003-04. Further, the figures for machine-hour utilisation for the years from 1999-2000 to 2002-03 furnished by the management of Ordnance Clothing Factory Shahjahanpur to Audit were inconsistent with the quarterly machine-hour utilisation data reported by them to the Ordnance Factory Board as indicated below:

	Machine-hours utilised	(in lakh hours)
Year	As furnished to Audit	As reported to Ordnance Factory Board
1999-2000	69.56	(for three quarters only) 0.73
2000-01	67.10	0.91
2001-02	68.53	22.04
2002-03	66.53	22.28

The factory management did not, however, furnish the basis on which the data reported to Audit had been compiled. In view of material variation between two sets

of figures with regard to machine-hours utilisation in all the years in question, the performance of the factory can not be determined correctly. Besides, none of the factory managements maintained any basic/primary records, indicating shop-wise and machine-wise utilisation.

Manpower

The ordnance factory management determines the manpower capacity in terms of input SMH^{Θ} on the basis of number of direct industrial employees (IEs) engaged in production activities and quantifies the workload accomplished by the factory in terms of output SMH utilised in production.

In two factories, the available SMH was not fully utilised. Yet the management resorted to work on overtime basis as under:

Year	SMH available	Total SMH utilised	utilised Overtime allowed			Avoidable overtime				
	(in lakh hours)	(in lakh hours) including OT	Hours (Lakh)	Payment (Rs in lakh)	Hours (Lakh)	Amount (Rs in lakh)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)				
		Ordnance Clothing Factory Avadi								
2000-01	46.53	45.13	13.98	469.70	13.98	469.70				
2001-02	43.89	45.28	12.00	488.37	10.61	431.80				
2002-03	43.33	42.33	13.46	620.88	13.46	620.88				
Total			39.44	1578.95		1522.38				
	(Ordnance Clothing Fa	ctory Sha	hjahanpur	•					
2001-02	76.72	96.24	25.05	720.18	5.53	158.99				

It would be seen from the above that the management of Ordnance Clothing Factory Avadi paid Rs 15.79 crore towards overtime wages for 39.44 lakh hours during 2000-01 to 2002-03. Out of this, payment of Rs 15.22 crore was avoidable in view of underutilisation of available SMH. Similarly, the management of Ordnance Clothing Factory Shahjahanpur could have avoided the payment of Rs.1.59 crore towards overtime wages during 2001-02 by fully exploiting the SMH available. Proper planning of the production could avoid payment of overtime by utilisation of unutilised man-hours.

8.2.6 Production performance

Incorrect reporting of issues

Ordnance Equipment Factories Group Headquarters fix production targets for various items before the commencement of a financial year on the basis of outstanding orders at the beginning of the year, delivery schedule and the capacity in the five factories in terms of machinery and manpower. They report the details of annual target, production and issue for various items to the Ordnance Factory Board and the Ministry through Achievement Report in March every year. Examination of documents disclosed that the Ordnance Equipment Factories Group Headquarters

 $^{^{\}Theta}$ S M H \rightarrow Standard man-hours

overstated the figures of production and issue by Rs 52.58 crore in the Achievement Reports for the years 1999-2004 in respect of only three factories. Annual Achievement Reports in respect of Ordnance Equipment Factory Hazratpur and Ordnance Equipment Factory Kanpur were not made available to Audit. The factories were yet to complete the targeted production and issues for the items physically as of 31 March but these were reported as produced in the factories and issued to the Services. A few such cases are detailed in the Annexure-II. The year-wise consolidated position of issues reported in excess was as under:

			(Rupees in lakh)
Year	Factory involved	Number of Items	Issues reported in excess in the achievement
1999-2000	Ordnance Parachute Factory Kanpur	6	224.88
2000-01	Ordnance Parachute Factory Kanpur	6	274.59
2001-02	Ordnance Parachute Factory Kanpur	4	620.64
	Ordnance Clothing Factory Shahjahanpur Ordnance Clothing Factory Avadi	3	628.45
2002-03	Ordnance Parachute Factory Kanpur	4	428.98
	Ordnance Clothing Factory Shahjahanpur	1	812.29
	Ordnance Clothing Factory Avadi	2	52.21
2003-04	Ordnance Clothing Factory Shahjahanpur	4	1485.88
	Ordnance Parachute Factory Kanpur	8	729.81
			Total Rs 5257.73 lakh

This resulted in concealment of shortfalls in production and issue with reference to the targets. Thus, the Ordnance Equipment Factories Group Headquarters failed to effectively and efficiently monitor the performance reporting.

Spill-over production

The manufactured items are accepted after inspection. The accepted items are brought on charge in the production ledger. Issues of the items are subsequently made to the indentors through production issue vouchers. Scrutiny of records revealed that the factories were showing a good number of items as issued to the indentors by 31 March of a financial year though many items were neither actually manufactured nor physically issued to the indentors during the particular years. They completed the actual production and issues of the left-over quantity in the subsequent years. Such cases are referred to as 'spill-over production'.

The quantum of factory-wise 'spill-over production'/'issues' during the last five years are indicated below:

	(Rupees in crow											
Year	Ordnance Equipment Factory Kanpur	Ordnance Clothing Factory Shahjahanpur	Ordnance Parachute Factory Kanpur	Ordnance Clothing Factory Avadi	Ordnance Equipment Factory Hazratpur	Total						
1999-2000	Nil	Nil	5.93	10.80	Nil	16.73						
2000-01	50.00	32.23	14.60	6.67	Nil	103.50						
2001-02	40.93	37.17	17.41	8.48	6.57	110.56						
2002-03	52.32	49.36	14.65	29.38	6.03	151.74						
2003-04	100.04	34.90	12.53	21.03	3.42	171.92						

Due to 'spill-over production', the expenditure on production towards material and labour may be incurred in the following year either in full or in part even though the issues have been accounted for in the current year. Some of the accounting implications arising out of this situation are as follows :

In the year of 'reported' issue, either partial or no expenditure is booked under labour and material, whereas full credit is taken for inflating the value of production and value of issues in the Finished Stock Account. Some of the details of labour (SMH) booked by the factories during 2003-04 in order to liquidate the 'spill-over production' of 2002-03 are indicated below:

Name of the factory	Labour booked (in lakh SMH)
Ordnance Equipment Factory Kanpur	12.09
Ordnance Clothing Factory Shahjahanpur	19.71
Ordnance Parachute Factory Kanpur	3.63
Ordnance Clothing Factory Avadi	7.00
Ordnance Equipment Factory Hazratpur	0.42

In the subsequent years i.e. the years of actual manufacture and issue, although the expenditure towards manufacture of spill-over items is fully booked in the Production Account, no credit of payment is taken for the issues of the spillover items, thereby rendering the value of issues understated in the Finished Stock Account.

This affects the reliability and correctness of the Annual Accounts of the Ordnance Factory Organization and is inconsistent with the established accounting principles and does not represent a true and fair view.

Although the Ordnance Factory Board in the context of 'spill-over' up to 2001 had stated in January 2002 that all out efforts were being made to minimize the spill-over transaction, the same showed an increasing trend in the Ordnance Equipment Group of factories as depicted below:

			(Rupees in crore)
Year	Total value of production in Ordnance Equipment Group	Total value of spill -over production	Percentage of spill- over to value of production
1999-2000	506.99	16.73	3
2000-01	544.58	103.50	19
2001-02	566.33	110.56	20
2002-03	584.59	151.74	26
2003-04	645.46	171.92	27

The management's responses with regard to the spill-over transactions is summarised as under:

Name of the factory	Management's response
Ordnance Equipment Factory Hazratpur	Completing the spill-over target of previous year is a regular feature.
Ordnance Equipment Factory Kanpur	Manufacture of items was reported in advance to appropriate the budget of various indentors.
Ordnance Clothing Factory Shahjahanpur	Spill-over was due to uneven and interrupted supply of basic materials.
Ordnance Clothing Factory Avadi	Non-availability/deficiency of basic material.

The ordnance equipment group of factories were yet to liquidate spill-over production amounting to Rs 41.68 crore as of October 2004 in respect of the spill-over production reported for the year 2003-04. Ordnance Clothing Factory Shahjahanpur was yet to liquidate the spill-over transactions even for the years 2001-02 and 2002-03, involving 29 and 17 items respectively as of April 2004. Similarly, Ordnance Clothing Factory Avadi was yet to liquidate the spill-over production in respect of two items for 2002-03 even as of March 2004. Details for the remaining three factories were not made available to Audit.

Wide variation in cost for common items of production

Certain items are simultaneously manufactured in two or more factories. Based on sample comparative analysis of the rates for the items categorized under the same work order and description, it was noticed that there was wide variation in the unit cost of production of certain items manufactured in different factories. Compared to the higher cost of production charged in case of production of the same item in two or more factories and the minimum cost in any one of them, there was an extra expenditure of Rs 62.96 crore in respect of 28 items selected for scrutiny. Significant variation noticed in the cost of material, labour and overheads are depicted in Annexure-III.

It would be seen therefrom that the variation in the material cost ranged between eight and 38 *per cent* and those for labour and overhead costs ranged up to 1804 and 1516 *per cent* respectively.

General Manager Ordnance Clothing Factory Avadi stated in March 2004 that the variation in material cost between Kanpur group of factories and Avadi existed due to difference in transportation cost, while the differences in labour cost occurred because of difference in hourly labour rates. The reply is not verifiable in the absence of data in support of this contention. However, material and labour estimates of similar items were identical. The management of Ordnance Clothing Factory Shahjahanpur stated in March 2004 that exercise to contain the unit cost was an ongoing process and admitted that no comparative study was made at factory level.

Thus, the wide variation in cost for common items of production not only signifies slackness in exercising cost control but also affects the overall economy in production in the factories where the cost is high.

Shortfall in supplies of principal items

Significant shortfall in production and supply of certain principal items to the Services with reference to their outstanding orders during 1999-2000 to 2003-04 was noticed. A few such cases test checked are depicted below:

Items	Outstanding order as of 1 April 1999 plus subsequent orders received	2000 to 200	ing 1999- 13-04 as per ent Report	Shortfall in issue with reference to outstanding order	
	up to March 2004	Target	Issue	as of March 2004	
(1)	(2)	(3)	(4)	(5)	
Coat Combat ICK	6,81,316	4,20,000	4,40,000	2,41,316	
Jacket Combat ICK	22,58,610	18,21,500	18,21,500	4,37,110	
Socks Men wool OG	1,05,74,944	65,00,000	66,81,500	38,93,444	
Socks Woolen Heavy Khaki	17,18,313	13,18,000	14,31,166	2,87,147	
Shorts Men PC Khaki	35,04,004	23,00,000	23,30,016	11,73,988	
Boot Ankle DVS	38,98,042	23,00,000	23,00,000	15,98,042	
Shirt Men Angola Drab	48,34,846	33,65,000	33,42,609	14,92,237	
Blanket Barrack Type 'A' NG	29,14,201	17,00,000	17,30,000	11,84,201	
Trouser Serge BD	32,55,278	25,04,020	24,54,020	8,01,258	
Jersey Woolen OG 'V' Neck	29,76,952	21,25,000	20,85,000	8,91,952	
Shirt Plain Weave PC OG	23,49,250	20,10,000	15,20,000	8,29,250	
Trouser Plain Weave PC OG	27,14,484	20,60,000	15,71,450	11,43,034	
Jacket Combat Drill Disruptive	47,67,520	31,50,000	33,35,000	14,32,520	
Trouser Combat Drill Disruptive	37,72,168	31,30,000	32,40,033	5,32,135	
Overall Combination Drill Disruptive	36,06,804	18,55,000	19,77,850	16,28,954	
Bag Kit Universal OG	22,00,029	14,50,000	14,50,000	7,50,029	
Brake Parachute (Mig 21 Aircraft)	5192	4185	4285	907	
Brake Parachute (Mirage 2000 Aircraft)	526	432	346	180	

The production and supplies were not commensurate with the requirement of the services resulting in significant deficiencies of the clothing and equipment items at their end. In fact, the quantum of deficiencies in supplies would go up further if the quantum of spill-over production as of March 2004 is excluded.

8.2.7 Analysis of overheads

Value of production(VOP) mainly includes direct material, direct labour and overheads. Overheads charged in the ordnance factory are classified into variable and fixed according to the nature of expenses.

Factory-wise value of production and percentage of overheads to the value of production of Ordnance Equipment Factories Group, during 1999-2000 to 2003-04 are shown below:

									(Rup	ees in croi	re)
Factory	199	9-2000	20	2000-01		2001-02		02-03	20	2003-04	
	VOP	Overheads (percentage to VOP)	rage								
Ordnance Equipment	180.22	45.39	187.95	47.92	186.22	42.97	234.65	43.06	215.66	49.91	
Factory Kanpur		(25)		(25)		(23)		(18)		(23)	23
Ordnance Clothing	152.08	46.44	159.19	51.52	172.66	48.21	142.83	43.38	220.75	46.24	
Factory Shahjahanpur		(31)		(32)		(28)		(30)		(21)	28
Ordnance Clothing	79.82	26.04	85.91	26.38	95.86	23.70	89.71	27.77	92.24	26.53	
Factory Avadi		(33)		(31)		(25)		(31)		(29)	30
Ordnance Parachute	70.06	20.32	81.41	19.78	80.82	20.02	83.38	22.12	84.19	22.48	
Factory Kanpur		(29)		(24)		(25)		(27)		(27)	26
Ordnance Equipment	24.81	6.77	30.12	7.99	30.77	7.67	34.02	8.35	32.62	8.23	
Factory Hazratpur		(27)		(27)		(25)		(25)		(25)	26

The percentage of overheads to the value of production of the factories ranged between 18 and 33 during 1999-2004. Ordnance Clothing Factory Shahjahanpur and Ordnance Clothing Factory Avadi which had the highest percentage of overheads attributed this to high indirect labour and supervision charges as compared to direct labour.

The managements may take effective measures to reduce the overheads by curtailing expenditure on indirect labour and supervision charges, especially for these two factories to secure economy in production.

8.2.8 Non-moving and blocked inventory

Non-moving stores are those which have not been drawn for the purpose of production for a period of three years or more from the date of their receipt. Blocked inventory represents raw materials, semi-finished or finished articles arising out of abrupt cancellation/shortclosure of orders by the indentors and for which there is no prospect of utilisation.

The year-wise details of non-moving stores in the five factories were as under:

				(Rupe	es in lakh)
Name of the factory	Value of non-moving stores as of 31 March				
	2000	2001	2002	2003	2004
Ordnance Clothing Factory Avadi	68.64	20.44	154.38	91.30	104.24
Ordnance Parachute Factory Kanpur	59.55	52.12	50.57	78.58	95.46
Ordnance Equipment Factory Kanpur	53.19	75.23	74.60	85.49	206.61
Ordnance Equipment Factory Hazratpur	7.07	Nil	1.06	4.54	5.86
Ordnance Clothing Factory Shahjahanpur	2.53	1.47	0.77	0.20	0.24
Total	190.98	149.26	281.38	260.11	412.41

It would be seen from the above that the value of non-moving stores has increased more than two fold, from Rs 1.91 crore as of March 2000 to Rs 4.12 crore as of March 2004. Ordnance Equipment Factory Kanpur, Ordnance Clothing Factory Avadi and Ordnance Parachute Factory Kanpur among them were consistently holding most of the non-moving stores during all these years.

The factory management should explore possibility of utilising the stores in their own or other factories or initiate action for their disposal.

In addition to the non-moving inventory, two factories held blocked inventory to the tune of Rs 86.62 lakh due to foreclosure of orders as of March 2004 as under:

	(Rupees in lakh)
Factory	Value of blocked inventory
Ordnance Parachute Factory Kanpur	81.60
Ordnance Clothing Factory Avadi	5.02

8.2.9 Monitoring and internal control

In order to carry on the planning, production and other related activities in an efficient manner, to ensure adherence to management policies, to safeguard the assets and to secure the completeness and accuracy of the records, various types of executive and financial controls are required to be implemented in any organisation. The important control areas in functioning of Ordnance Equipment Group of factories embrace mainly planning and production, inventory, quality, human resource, cost and accounting and internal audit.

Certain instances of inadequate control and lack of proper monitoring noticed during test check of records are discussed below:

Based on the indents received from the users, Ordnance Equipment Factories Group Headquarters Kanpur place extracts for manufacture of stores on the factories and fix the annual target of production as per the core competency and capacity available with the factories. They are also responsible for monitoring the production through review meetings with the factories where decisions are taken to resolve issues relating to production bottleneck.

However, Ordnance Equipment Factories Group Headquarters were not maintaining the position of outstanding indents and details of year-wise and factory-wise orders placed on various factories. In the absence of these data, it is not clear as to how the Ordnance Equipment Factories Group Headquarters monitored the production and issue with reference to the Services' indents. Besides, reporting of overstated production and issues in the Achievement Reports to the Ministry/Ordnance Factory Board and suppressing the shortfall in actual production/issue with reference to the target, as discussed in paragraph 8.2.6.1 are suggestive of slackness in monitoring and effective control over production as well as deficiency in the performance reporting system.

8.2.10 Unjustified procurement and underutilisation of machines

Ordnance factories procure plants and machinery based on assessment of actual production load and known demand from the user Services on a medium term basis. In two instances, two factories procured socks knitting machines without valid justification creating excess capacity with reference to the existing pattern of workload and did not utilize the machines optimally as discussed below:

Ordnance Clothing Factory Shahjahanpur

Mention was made in Paragraph 7.3.6 (iv) of the Report of the Comptroller and Auditor General of India for the year ended March 2003 (No. 6 of 2004) about excess procurement of 10 computerised automatic power socks knitting machines costing Rs 1.28 crore with reference to the then workload at Ordnance Clothing Factory Shahjahanpur. Further scrutiny revealed that the factory management procured another 15 machines costing Rs 1.80 crore in March 2004, despite holding 35 socks knitting machines. The management stated in April 2004 that they procured 15 additional machines as the expected workload of socks was likely to be in the range of 12 lakh to 17 lakh pairs per annum and also to compensate the loss of production due to break-down of the existing 35 machines. The management, however, did not furnish any basis on which the expected workload was assessed. Their reply is also not tenable in view of the following facts:

(i) The capacity of the existing 35 machines commissioned in 2001 was 16.80 lakh pairs per annum and chances of their major break-down should be minimal as these were commissioned only three years back.

(ii) The annual productions of socks during 2002-03 and 2003-04 were only 11.50 lakh and 12 lakh pairs respectively, as against the existing capacity of 16.80 lakh pairs per annum.

(iii) The tentative target as per four-yearly production programme during 2004-05 to 2006-07 never exceeded 12 lakh pairs per annum, for which the existing 35 machines were more than adequate.

Ordnance Parachute Factory Kanpur

Mention was made in Paragraph 7.3.6 (i) of the Report of the Comptroller and Auditor General of India for the year ended March 2003 (No.6 of 2004) about creation of excess manufacturing capacity at Ordnance Parachute Factory Kanpur by way of procurement of 31 computerized socks knitting machines at a total cost of Rs 2.43 crore.

Further scrutiny with regard to utilisation of these machines revealed that the factory produced only 6.10 lakh pairs of socks in 2002-03 and 4.52 lakh pairs in 2003-04 against their annual manufacturing capacity of 18.43 lakh pairs. The extent of utilisation of the capacity worked out to only 33 and 25 *per cent* respectively. In spite of gross underutilisation of these machines, the management resorted to fabrication of 2,54,500 pairs of socks by trade at a total cost of Rs 32.64 lakh during 2002-03 and 2003-04.

Thus, the managements of these two factories could not efficiently exploit the socks knitting machines to their optimum capacity.

8.2.11 Non-realisation of value for money

In two instances the management of two factories failed to derive value for money from an investment of Rs 2.23 crore for line concept/assembly systems as brought out below:

Ordnance Equipment Factory Hazratpur

Ordnance Equipment Factory Hazratpur procured a modern line concept system costing Rs 1.20 crore to manufacture 1.50 lakh pairs of trousers ICK^{*} per annum. Despite certain deficiencies noticed during inspection, the factory management installed it in December 2001 and paid Rs 92.98 lakh to the firm. During 2002-03 and 2003-04, the system could produce only 53,301 and 76,684 trousers respectively. The management did not release balance 20 *per cent* payment to the firm and forfeited its security deposit of Rs 5 lakh as per contractual terms. In view of poor performance of the system, the management had to offload fabrication of 1.13 lakh trousers ICK between September 2002 and September 2003 to meet the production target. Thus, the value for money could not be fully realised from an investment of Rs 92.98 lakh for the line concept system.

Ordnance Clothing Factory Avadi

Ordnance Clothing Factory Avadi placed an order on Apparel and Leather Techniques Private Limited Bangalore in September 2000 for supply of two assembly lines at a total cost of Rs 1.30 crore for fabrication of 2.47 lakh shirts PC khaki per annum with the estimated saving in man-power of 114 persons and reduction in unit cost of production of the item from the existing Rs 292.05 to Rs 176.41. The machine was not commissioned as of March 2004. Non-commissioning of the line assembly system even three years after its receipt deprived possible cost saving to the extent of Rs 8.57 crore during 2001-02 to 2003-04.

The draft report was forwarded to the Ministry in August 2004. Its reply was awaited as of December 2004.

^{*} $I \subset K \rightarrow Infantry Combat Kit$

Planning

8.3 Extra expenditure due to rejection of 5.56 mm rifles

Rejection of 2800 rifles (5.56 mm) produced at Rifle Factory, Ishapore and their issue for drill purposes resulted in extra expenditure of Rs 3.05 crore and accumulation of rejected rifles valuing Rs 1.50 crore awaiting conversion for use in training establishments.

Rifle Factory Ishapore (RFI) manufactures and supplies 5.56 mm rifles to Armed Forces and Ministry of Home Affairs (MHA) after clearance by the Controllerate of Quality Assurance -Small Arms (CQA-SA), Ishapore. The rifles failing in proof are repaired and subjected to reproof, repeatedly, till they are finally accepted.

CQA-SA noted that rifles, which had been repeatedly repaired and components replaced till final acceptance at Rifle Factory Ishapore, became trouble-prone in the hands of the users and a burden to the quality assurance establishments owing to abnormal expenditure on ammunition spent in repeated reproof. CQA-SA introduced a modified proof procedure for testing of 5.56 mm rifles with effect from October 2001 according to which only those rifles ex-RFI that passed in proof first time and during first reproof in Horizontal Functioning test were to be issued to the Armed Forces and MHA. The rifles cleared in subsequent reproof were to be issued to other establishments while rifles failing in third time reproof in Horizontal Functioning test were to be issued to training test were to be sentenced as "Drill Purpose" (DP) to be issued to training establishments for use in training.

Audit noticed that between April 2002 and June 2004, 3666 rifles (5.56 mm) manufactured by RFI at a cost of Rs 6.37 crore failed in third time reproof in Horizontal Functioning test and were recommended for conversion to DP by CQA-SA. Ordnance Factory Board stated in November 2004 that 2800 such rifles had been issued up to September 2004 to meet the requirement of DP rifles and further issues as DP rifles were being made.

DP rifles are ineffective and nonconvertible to fireable arms by any means. These are normally built up from rejected components or components retrieved from unserviceable rifles. No proof test is required for such rifles. Cost of production of DP rifles is thus significantly less than that of 5.56 mm rifles. By issuing 2800 rifles (5.56 mm) as DP, RFI incurred an extra expenditure of Rs 3.05 crore, being the difference between cost of production of 5.56 mm rifles and DP rifles. Another 866 rifles valuing Rs 1.50 crore were awaiting conversion for use in training. The failure of 5.56 mm rifles in third time reproof was not investigated by RFI.

The matter was referred to the Ministry in May 2004; their reply was awaited as of December 2004.

8.4 Extra expenditure in procurement of item from sister factory

Procurement of tail adapter by Ordnance Factory Dehu Road from Ordnance Factory Kanpur at higher rate despite being aware of its availability from trade at cheaper rates resulted in an additional expenditure of Rs 3.04 crore.

Ordnance Factory Dehu Road (OFDR) received 1.04 lakh tail adapters between June 2002 and February 2004 against their two inter-factory demands (IFD) of April 2002 for 80,000 and of March 2003 for 30,000 placed on Ordnance Factory Kanpur (OFC), at Rs 320.73 and Rs 454.02 each respectively.

Meanwhile, OFDR procured 68,000 tail adapters from trade at an average cost of Rs 60.59 each against its two orders of June 2002 and December 2002, which was far cheaper than the OFC/IFD cost. Thus, procurement of 1.04 lakh tail adapters, as of February 2004, from OFC at an exorbitant cost instead of from trade at a far cheaper rate, resulted in extra expenditure of Rs 3.04 crore.

As per Ordnance Factory Board's instructions of October 1997, if material price alone of the IFD factory is more than the total (unit) cost of the finished goods obtained extrade, the buying factory has the option to buy from trade. The guidelines also stipulate that factories may be encouraged to purchase material from sister factories even if its price exceeds the trade price but in that case, issues will be priced at trade price.

In the present case, the material cost alone of OFC during 2002-03 was Rs 81 each, overheads were 3.6 times of material cost and cost of labour was almost equal to total (unit) cost of Rs 60.59 for the finished goods ex-trade. Hence, OFC could have opted for trade procurement to save extra expenditure to the tune of Rs 3.04 crore.

Ordnance Factory Board stated in August 2004 that the factories are encouraged to obtain inputs from sister Ordnance Factories and the supplying factories are directed to review the production process with a view to reduce the cost of product. The contention of Ordnance Factory Board is not tenable as the OFC had failed to review the production process to reduce the cost of product. Failure to do so resulted in an additional expenditure of Rs 3.04 crore.

The matter was referred to the Ministry in May 2004; their reply was awaited as of December 2004.

Production/Manufacturing

8.5 Loss due to use of defective castings

Use of defective die-castings in processing the body of 84 mm TPT bomb at Gun and Shell Factory, Cossipore, resulted in abnormal rejection and consequent loss of Rs 67.13 lakh.

The Gun and Shell Factory Cossipore (GSF) procures die-castings in pre-machined

condition from Ordnance Factory, Ambajhari (OFAj) for manufacture and supply of empty bomb body of 84 mm Tracer Path Target (TPT) to Ordnance Factory, Khamaria (OFK).

Mention was made in paragraph 64 of Comptroller and Auditor General of India's Report No. 7 of 2001 regarding rejection of 17,781 die-castings ex-OFAj valuing Rs 76.57 lakh during machining operation at GSF owing to presence of blow-holes and eccentricity. The Ministry of Defence in their Action Taken Note stated in March 2002 that in order to avoid rejection of die-casting ex-OFAj at consignee's end due to blow-holes, the OFAj had installed an X-ray machine in October 1999. The Ministry of Defence also added that basic component design had been modified and tracer hole introduced in the casting operation where maximum instances of blow-holes were observed after machining.

Further examination revealed that even after implementation of modified production process, the die-castings supplied by OFAj continued to get rejected during machining operation at GSF owing to presence of blow-holes.

GSF received Inter Factory Demand (IFD) of February 2001 from OFK for manufacture and supply of 2.25 lakh (84 mm) TPT projectile. GSF completed manufacture of 1.32 lakh projectiles against five warrants issued between May 2001 and September 2002 from TPT body castings, received from OFAj and trade. An avoidable abnormal rejection of 13,000 TPT body castings as against 10 *per cent* normal rejection was registered during machining operation. In view of the rejections the General Manager, GSF constituted a Board of Enquiry in March 2003 which in its findings of April 2003 attributed the rejection to blow-holes, less material thickness and cracks which in turn was attributed to inherent process limitation at OFAj. As a remedial measure the Board of Enquiry suggested enhancing the normal rejection from the existing level of 10 *per cent* to 15 *per cent*. The General Manager, GSF however, enhanced the normal rejection to 14 *per cent* as approved by OFB earlier in January 2000. With enhanced normal rejection levels (14 *per cent*), abnormal rejections during May 2001 to September 2002 worked out to 7200.

Failure of OFAj in controlling the manufacturing process of die-castings even after introduction of modified design coupled with their failure to locate the blow-holes despite installing X-ray machine in November 1999 resulted in loss of Rs 67.13 lakh towards abnormal rejection of 7200 die-castings at GSF.

While accepting the facts, Ordnance Factory Board stated in October 2004 that corrective measures were being taken at Ordnance Factory Ambajhari.

The matter was referred to Ministry in May 2004; their reply was awaited as of December 2004.

8.6 Loss due to defective manufacture of cartridge cases

Defective manufacture of empty cartridge cases at Metal and Steel Factory Ishapore and Ordnance Factory Varangaon resulted in rejection of cartridge cases worth Rs 6.44 crore without any prospect of its utilisation.

Based on Army's indent of May 1985 Ordnance Factory Board (OFB) Kolkata placed an extract in December 1985 on Ordnance Factory Khamaria (OFK) for manufacture and supply of 4,63,500 cartridges of 23 mm schilka ammunition to Central Ammunition Depot (CAD) Pulgaon by March 1989. Production did not commence till March 1998 due to availability of initially manufactured ammunition using imported components and Army informing no further requirement. OFK placed two inter factory demands (IFD) for empty cartridge cases in April 1998 (for 1.30 lakh cases) and February 2001 (for 0.80 lakh cases) on Ordnance Factory Varangaon (OFV).

OFV supplied 1,71,137 empty cartridge cases to OFK between February 1999 and March 2002 duly cleared in inspection by the Quality Assurance Establishment (QAE) Varangaon. Of the 1,71,137 cartridge cases, 24,005 valuing Rs 1.27 crore were rejected between April 2000 and February 2002 due to repeated rupturing and jamming of cartridge cases and another 10,721 valuing Rs 56.66 lakh were banned for further use. Yet another 13,542 cartridge cases valuing Rs 71.56 lakh were held in stock of OFK unutilised.

In view of repeated rejection of cartridge cases, OFK directed OFV in April 2002 to stop further supply of cartridge cases and shortclosed their IFD of February 2001 at supplied quantity. OFK informed OFV that unused cartridge cases found unsuitable for assembly would be backloaded. OFV, however, did not agree to back-loading of unused cartridge cases, since all the cartridge cases were passed by QAE, Varangaon.

In view of shortclosure of OFK's IFD, OFV stopped production of the cartridge cases and the twelve machines valuing Rs 4.95 crore which were procured for manufacture of these cartridge cases were shifted to Metal and Steel Factory (MSF) Ishapore in July 2002 and March 2004. OFV, however, continued to hold 25,335 rejected finished/semi-finished empty cartridge cases valuing Rs 1.39 crore at their end without any prospect of issue/utilisation.

Meanwhile, OFK placed another IFD on MSF Ishapore in October 2001 for manufacture and supply of 4.90 lakh empty cartridge cases of 23 mm Schilka Armour Piercing Incendiary Tracer (De Coppering) ammunition, against which 2,20,732 cases were supplied to OFK between April 2001 and August 2003. Of these, 52,488 cases valuing Rs 2.51 crore were rejected by Senior Quality Assurance Establishment (Armaments) (SQAE(A)) Khamaria between November 2002 and September 2003 since the cartridge cases got completely ruptured.

SQAE(A), Khamaria had opined in December 2002 that the cause of rupture was inadequate control during annealing process at MSF Ishapore and intimated MSF,

Ishapore for backloading the rejected cartridge cases but the same was lying at OFK as of November 2004.

Thus, defective manufacture of empty cartridge cases at OFV and MSF Ishapore resulted in net loss of Rs 4.33 crore, after providing credit for scrap, due to rejection/ban on issue of 87,214 cartridge cases which were awaiting backloading to OFV/MSF Ishapore as of November 2004. Besides, 38,877 rejected empty cartridge cases worth Rs 2.11 crore were held at OFV and OFK. The rejected cases require regularisation by OFB after due constitution of Board of Enquiry and implementation of remedial measures to avoid recurrence of heavy losses in future. This has not been done till November 2004.

The matter was referred to the Ministry in May 2004; their reply was awaited as of December 2004.

8.7 Loss due to rejection of ammunition

Defective manufacture of 30 mm Armour Piercing Tracer ammunition at Ordnance Factory Khamaria resulted in rejection of ammunition worth Rs 17.12 crore during 2000-01 to 2003-04.

Based on Army's three indents placed between June 1999 and August 2001, Ordnance Factory Board (OFB) placed three extracts between July 1999 and October 2001 on Ordnance Factory Khamaria (OFK) for manufacture and supply of 10.11 lakh ammunition to the Central Ammunition Depot, Pulgaon.

In manufacture of 2.85 lakh rounds of ammunition in 2000-01, the factory sustained rejection of 48,283 ammunition in proof at Long Proof Range, Khamaria due to misfire, case rupture, more or less muzzle velocity etc during February 2001 to December 2001. Taking into account the normal rejection of 3.60 *per cent*, abnormal rejection was 38,030 ammunition valuing Rs 7.87 crore.

Similarly, in manufacture of 3.77 lakh rounds of ammunition in 2001-02 the factory recorded rejection of 47,095 ammunition in proof due to higher muzzle velocity and higher pressure resulting in abnormal rejection of 35,045 ammunition valuing Rs 7.02 crore.

The joint investigation team, constituted in April 2002 with members of the factory and Senior Quality Assurance Establishment (Armament) Khamaria, failed to pinpoint the actual cause for failure of ammunition in proof. The factory constituted a Board of Enquiry in December 2002 to investigate the causes of failure of the ammunition. The Board in its findings attributed rejection of lots to more/less muzzle velocity and recommended that the affected lots be subjected to Doppler Radar Test. The review of affected lots was awaited as of October 2004 at OFK. Meanwhile, during 2002-03 and 2003-04, OFK also registered abnormal rejection of 11,009 ammunition valuing Rs 2.23 crore for the same reasons.

Thus, the factory failed to control the abnormal rejection of ammunition manufactured during 2000-01 to 2003-04 which resulted in loss of Rs 17.12 crore.

OFB stated in October 2004 that another Board of Enquiry constituted in June 2004 recommended repair of ammunition rejected due to case rupture and misfire by replacing primers and cases. OFB also added that value of rejection would be much less after implementation of remedial measures suggested by Board of Enquiry. The contention of OFB is not tenable since the Board of Enquiry itself had commented in October 2004 that repair would involve an additional expenditure of Rs 1001 in respect of each rejected ammunition. Thus, the proposed repair of rejected ammunition would involve additional burden to the state exchequer, provided the ammunition was passed in proof after rectification.

The matter was referred to the Ministry in August 2004; their reply was awaited as of December 2004.

Provisioning of Stores

8.8 Repair due to defective and inept handling of stores

Improper storage, mishandling of stores and non-detection of defects within warranty period, non-utilisation of hydraulic control system of T-72 tanks for a long time by Heavy Vehicles Factory, Avadi, forced them to bear an avoidable expenditure of Rs 56.24 lakh towards repair.

In order to manufacture T-72 tanks, Heavy Vehicles Factory (HVF), Avadi procured 1237 sets of hydraulic control system (Code-66), from Hindustan Machine Tools (HMT) Ltd., Ajmer between August 1993 and April 2000 against four supply orders of Ministry of Defence placed between September 1987 and February 1999. Code-66 items comprised of value device, pipeline assembly etc.

Indian Army had complained about the failure noticed in Code-66 ex-HMT assembled in T-72 Tanks. A meeting was therefore arranged in December 2000 between HMT, Controller of Quality Assurance/Heavy Vehicles, Avadi and HVF and it was held that though some damages could have been caused to some components in transit, poor quality of Code-66 ex-HMT could not be ignored. It was therefore decided to backload all the available stock of pipelines/hoses held by HVF to HMT for revalidation of quality problem and also for servicing/rectification.

HMT, however, refused to undertake repair/revalidation at their cost on the ground that (i) stores had been damaged while storing at HVF, heavy damage had taken place due to improper loose packing done in old and extraordinary big packing cases, (ii) items supplied from 1996 onwards had not been used, (iii) studs in the oil priming pump were broken due to mishandling at HVF, (iv) leakage through breather hole was due to aging effect of oil seal since the stores were kept unused for long duration at HVF and (v) warranty period was over.

HVF placed four supply orders valuing Rs 56.24 lakh on HMT and its sub-contractor Imperial Auto Industries, Faridabad between January 2001 and September 2002 for repair/revalidation.

Thus, improper handling and packing of stores coupled with HVF's inability to detect unserviceability of Code-66 within the warranty period forced them to bear an avoidable extra-expenditure of Rs 56.24 lakh towards repair/revalidation of the stores.

Armoured Vehicles Headquarters (AVHQ), Avadi, stated in June 2004 that the defects were not noticed at the time of drawal of the item but the functional problems occurred after the items were fitted in the tanks/during trials. They also added that the quality problem was not attributed to improper storage/mishandling as the stores were stored properly with original packing. The contention of AVHQ is not tenable since the HVF paid for all repairs/revalidation which amounted to tacit acceptance of its lapse.

The extra expenditure for Rs 56.24 lakh towards repair/revalidation could have been avoided had the factory detected unserviceability of Code-66 under strict vigil within the warranty period.

The matter was referred to the Ministry of Defence/Ordnance Factory Board in August 2004; their replies were awaited as of December 2004.

8.9 Improper assessment of requirement of armour plates

Improper assessment with regard to requirement of armour plates by Heavy Vehicles Factory, Avadi resulted in non-utilisation of items worth Rs 82.08 lakh.

Heavy Vehicles Factory (HVF), Avadi requires armour plates of 60 x 750 x 4000 mm dimensions in manufacture of T-72 tanks and its overhauling.

In May 1996 HVF assessed a requirement of 74,036 kgs of armour plates for manufacture of 232 original tanks and overhaul of 100 tanks. The net deficiency after taking into account available stock worked out to 61,190.254 kgs of armour plates. HVF procured 60,024 kgs armour plates from Steel Authority of India Limited, Rourkela between February 1997 and January 1998 against its order of September 1996.

Audit noticed that out of this procurement, HVF held 48,657 kgs of armour plates valuing Rs 82.08 lakh in their stock as of July 2004, even though by that date the factory had already assembled 1108 T-72 tanks and overhauled 292 tanks, which were well beyond the originally indented quantities of 232 original equipment and 100 overhauling of tanks. Thus, requirement of the plates by the factory was assessed improperly resulting in avoidable accumulation of inventory.

Ordnance Factory Board (OFB) admitted in October 2004 that assessment of consumption for overhaul was on higher side. The Board added that the plates in stock of HVF Avadi would be utilised in manufacture of hulls of T-72 and T-90 tanks and to meet the requirement of spares and overhauls. The contention of OFB is not tenable since the thickness of the components of T-72 tanks and T-90 tanks were different (88.5 mm/67.5 mm/40 mm) from the procured plates which had a thickness of 60 mm. Utilisation of the procured plates would require heavy machining, thereby entailing avoidable extra expenditure and material wastage.

Thus, improper assessment of the requirement of armour plates during May 1996 by HVF resulted in unnecessary accumulation of plates worth Rs 82.08 lakh till March 2004.

The matter was referred to the Ministry in August 2004; their reply was awaited as of December 2004.

Miscellaneous

8.10 Unauthorised handing over of Defence land and building

Ordnance Equipment Factory, Kanpur handed over defence land and building to a registered society for running a school without approval of the competent authority, resulting in exploitation of immovable assets worth Rs 2.55 crore.

Ordnance Equipment Factory Kanpur (OEFC) was running classes of standard I to X at a departmental school under Central Board of Secondary Education at Ordnance Equipment Factory Inter College on self help basis since 1981.

In view of Ordnance Factory Board's instruction of May 1989 that no unauthorised higher classes or authorised classes on self help basis should be run by the General Managers of Ordnance Factories directly or through committees headed by General Managers, it became necessary to shift the classes run in OEFC Inter College to some other premises.

As closure of classes I to X would lead to inconvenience and affect education prospects of students of various classes, officers and staff of OEFC and Ordnance Parachute Factory, Kanpur formed a Society which was registered with Uttar Pradesh Government as "Ordnance Equipment Factory Kalyan Samiti". Under the aegis of this society, the departmental school named "OEF High School" was shifted to the factory-owned building at Larmour Bagh with effect from April 2000. The market value of the land and building was Rs 2.55 crore.

In April 2000 OEFC sought the approval of the Ordnance Factory Board for leasing out of the land and the building, which was awaited as of August 2004.

Handing over of defence land and assets worth Rs 2.55 crore by OEFC without lease agreement and without the approval of Ordnance Factory Board was not only a violation of extant provisions governing leasing of defence land but also allowed the OEF Kalyan Samiti to exploit the defence land at the cost of the State.

The case was referred to the Ministry of Defence/Ordnance Factory Board in August 2004; their replies were awaited as of December 2004.

8.11 Follow up on Audit Reports

The Ministry of Defence failed to submit remedial Action Taken Notes on 13 Audit Paragraphs as of December 2004.

With a view to ensuring enforcement of accountability of the executives in respect of all the issues dealt with in various Audit Reports, the Public Accounts Committee desired that Action Taken Notes on all paragraphs pertaining to the Audit Reports for the year ended 31 March 1996 onwards be submitted to them duly vetted by Audit within four months from the date of laying of the Report in Parliament.

The Audit Report for the year ended March 2003 was laid in Parliament on 13 July 2004. Review of outstanding Action Taken Notes relating to Ordnance Factory Board as of November 2004 revealed that the Ministry of Defence had not submitted Action Taken Notes in respect of 13 Paragraphs included in the Audit Report for the years ended March 2003 as per Annexure-IV.

8.12 Response of the Ministry/ Departments to Draft Audit Paragraphs

On the recommendations of the Public Accounts Committee, Ministry of Finance (Department of Expenditure) issued directions to all ministries in June 1960 to send their response to the Draft Audit Paragraphs proposed for inclusion in the Report of the Comptroller and Auditor General of India within six weeks.

The Draft Paragraphs are always forwarded by the respective Audit Officers to the Secretaries of the concerned ministries/departments through Demi Official letters drawing their attention to the audit findings and requesting them to send their response within six weeks. It is brought to their personal notice that since the issues are likely to be included in the Audit Reports of the Comptroller and Auditor General of India, which are placed before Parliament, it would be desirable to include their comments in the matter.

Draft Paragraphs proposed for inclusion in the Ordnance Factory Section of the Report of the Comptroller and Auditor General of India for the year ended March 2004: Union Government (Defence Services), Army and Ordnance Factories No.6 of 2005 were forwarded to the Secretary, Department of Defence Production and Supplies, Ministry of Defence between May 2004 and December 2004 through Demi Official letters.

The Secretary Department of Defence Production and Supplies did not send reply to any of the nine Draft Paragraphs included in the Report. Thus, the response of the Secretary of the Ministry could not be included in them.

New Delhi Dated :

2005

(B.K. CHATTOPADHYAY) Director General of Audit Defence Services

Countersigned

New Delhi Dated:

2005

(VIJAYENDRA N. KAUL) Comptroller and Auditor General of India Report No.6 of 2005 (Defence Services)

ANNEXURE-I

Position of outstanding ATNs

(i) <u>Pending for more than five years</u>

		ian nve yea	(Referred to in Paragraph 2.7)
Sl.No.	Report No. and Year	Para No.	Subject
1.	Audit Report, Union Government (Defence Services) for the year 1985-86	34*	Loss due to delay in pointing out short/defective supply.
2.	No.2 of 1988	9**	Purchase of Combat dress from trade.
3.	No.2 of 1989	11*	Purchase and licence production of 155mm towed gun system and ammunition.
4.	No.12 of 1990	9*	Contracts with Bofors for (a) Purchase and licence production of 155mm gun system and (b) Counter trade.
5.		10*	Induction and de-induction of a gun system.
6.	** **********************************	19*	Import of ammunition of old vintage.
7.		46**	Ration article-Dal.
8.	No.8 of 1991	10*	Procurement of stores in excess of requirement.
9.		13*	Central Ordnance Depot, Agra.
10.		15**	Extra expenditure due to wrong termination of meat contract.
11.		17**	Infructuous expenditure on procurement of dal chana.
12.	No.8 of 1992	20**	Procurement of sub-standard goods in an Ordnance Depot.
13.		28**	Avoidable payment of maintenance charges for Defence tracks not in use.
14.	No. 13 of 1992	Part I*	Recruitment of Other Ranks
15.	No. 8 of 1993	15**	Non-utilisation of assets
16.		22**	Over-provisioning of corrugated card board boxes
17.		29*	Import of mountaineering equipment and sports items
18.		31*	Avoidable payment of detention charges
19.	No. 8 of 1995	12*	Working of the Department of Defence Supplies
20.		13*	Delay in repair of defective imported ammunition
21.	* *** *** *** *** *** *** *** *** ***	29*	Manufacture of defective parachutes
22.		30*	Non-utilisation of parachutes
23.	No. 8 of 1996	24*	Wasteful expenditure on injudicious procurement of tyres

Sl.No.	Report No. and Year	Para No.	Subject
24.	No. 7 of 1997	14**	Loss due to improper despatch of imported equipment
25.		15***	Over provisioning of seats and cushions for vehicles
26.		18*	Management of Defence Land
27.		23**	Avoidable expenditure on Demurrage charges
28.		24*	Undue favour to a firm
29.		27**	Non-realisation of claims from the Railways
30.		69**	Defective construction of blast pens and taxi track
31.	No. 7 of 1998	14**	Extra expenditure on modification of radar
32.		16*	Questionable deal
33.		17*	Procurement of defective radars
34.		18***	Extra expenditure on procurement of rifles and ammunition due to failure to adequately safeguard Government interest
35.		20**	Excess procurement of barrels
36.		21***	Extra expenditure due to non-adherence of contract provision
37.		22**	Import of defective missiles
38.		30*	Avoidable payment of container detention charges
39.		32*	Infructuous expenditure on procurement of substandard cylinders
40.		34**	Unauthorised issue of free rations
41.		36*	Procurement of batteries at higher rates
42.		52*	Loss of revenue
43.		64**	Unfruitful expenditure on procurement of substandard hot mix plants
44.	No.7 of 1999	12***	Presumptive fraud in import of ammunition
45.		13**	Defective training ammunition supplied by Bofors
46.		14**	Delay in renewal of lease agreement
47.		15***	Premature deterioration of imported ammunition
48.		17*	Procurement of defective sleeping bags
49.		24**	Negligence in framing terms of supply orders
50.		28*	Non-recovery of advance
51.		30***	Failure to meet operational requirement
52.		32**	Non-utilisation of friction drop hammers
53.		33**	Failure to observe proper issue procedure for batteries
54.		36**	Non-recovery/overpayment of electricity charges
55.		38*	Failure to administer a risk and expense contract

Sl.No.	Report No. and Year	Para No.	Subject
56.		40*	Delay in setting up of repair facilities for helicopters
(ii)	Pending for more than 3 years		
57.	No. 7 of 2000	13*	Failure to Safeguard Government Interest
58.		19**	Overhaul of infantry combat vehicles and engines (Project – White Lily)
59.		20*	Rejection of Barrels manufactured for T-72 tanks
60.		21**	Downgradation of mines due to manufacturing defects
61.		23***	Procurement of defective bullet proof windscreen glasses
62.		24**	Procurement of Batteries at higher rates
63.		27*	Extra expenditure due to delay in taking risk purchase action
64.		28**	Non-recovery of due from a commercially run club occupying Prime Defence Land
65.		30**	Delay in setting up of an aviation base
66.		36**	Unjustified payment towards sewerage cess
67.		41**	Nugatory expenditure on indigenisation of a Rocket
68.		42**	Delay in construction of bridges by Director General of Border Roads
69.		52***	Repowering of Vijayanta Tank
70.	No.7A of 2000	Entire* Report	Review of Inventory Management in Ordnance Services
(iii)	Pending upto 3 years		
71.	No. 7 of 2001	14*	Non-utilisation of imported radars
72.		15**	Procurement of an incomplete equipment
73.		19**	Infructuous expenditure on procurement of entertainment films
74.		20***	Inadequate follow up on deficient supplies leading to avoidable loss
75.		24**	Unauthorised use of defence land by a club at Mumbai
76.		26**	Hiring of buildings by Defence Estates Officer from an unauthorised party
77.		27***	Undue benefit to a private society
78.		32***	Wrongful credit of sale proceeds of usufructs to regimental fund
79.		34*	Non-levy of penalty by Canteen Stores Department for supplies in default

Sl.No.	Report No. and Year	Para No.	Subject
80.		37**	Payment for water lost in transmission from MIDC tapping junction to R&D(E) Pune take-over point
81.		38** (Case-II)	Cracks in garages and collapse of living accommodation due to defective design
82.		42**	Staff Projects completed by Vehicle Research and Development Establishment
83.	No.7A of 2001	Entire* [∆] Report	Review of Procurement for OP VIJAY(Army)
84.	No. 7 of 2002	15***	Avoidable expenditure on creating storage accommodation and helipad with allied facilities for helicopters
85.		18***	Delegation of special financial powers to GOC-in- C to meet urgent and immediate requirements of counter insurgency operations and internal security duties
86.		20***	Bouncing of Bank Guarantee furnished by Punjab Wireless System Ltd.
87.		21**	Over provisioning of minor fire extinguisher and subsequent excess issue
88.		22*	Recovery/saving at the instance of Audit
89.		23*	Improper provisioning of tyres
90.		25**	Overpayment of Rs 2.49 crore to Civil Hired Transport contractors
91.		27***	Inept handling of loss of store
92.		34*	Re-appropriation of single living accommodation constructed for Sailors
93.		35***	Construction of married accommodation for which no utility exists
94.		37**	Time and cost over-run in construction of Road due to lapse on the part of Border Roads Organisation
95.	***************************************	38*	Avoidable expenditure due to lapse in supervision
96.	No. 6 of 2003	2***	Exploitation of Defence lands
97.		3*	Non-functional equipment
98.		4*	Non-recovery of outstanding advance
99.		5***	Unnecessary import of spares
100.		6**	Response of the ministries/departments to Draft Audit Paragraphs
101.		7*	Follow up on Audit Reports
102.		8**	Idle investment on manufacture of defective ammunition

Sl.No.	Report No. and Year	Para No.	Subject
103.		9*	Accumulation of stocks of Grenades
104.		10*	Additional expenditure attributable to non- adherence to fuel policy
105.		11*	Recoveries effected at the instance of Audit
106.		13***	Unauthorised opening of a riding school and club
107.		14***	Irregular recruitment of personnel
108.		15**	Unproductive expenditure on construction of residential accommodation
109.		18*	Idle investment on construction of a transmitting station
110.		19**	Short recovery of electricity charges
111.		20*	Unfruitful expenditure on an air-conditioning plant
112.		24*	Over-provisioning of Tippers
113.		25*	Avoidable expenditure on construction of a Border Road
114.		26*	Infructuous expenditure on construction of accommodation

- * Action Taken Notes awaiting final settlement/vetting 49[°]
- ** Copy of the finalised ATN/Corrigendum to the finalised ATN awaited from Ministry, after being duly vetted by Audit 45
- *** Action Taken Notes not received even for the first time 20
- ^Δ Action Taken Notes on 06 individual paras and 7 Macro Analysis paras totalling 13 out of 42, not received even for the first time, though indicated at Sl. No. 83 as one 'Review'.

ANNEXURE-II

(Referred to in sub paragraph 8.2.6)

Factory involved	Item	Target	Issue as per Achievement Report of OEF Group Hqrs.	Actual physical issue as of 31	Issues reported in excess in the Achievement Report		
				March as per factory's records	Quantity	Percentage	Money value (Rs in lakh)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1999-2000	PTA –M	800	1000	749	251	34	130.37
	PTA - (R)	800	800	583	217	37	58.83
	Drogue Para 22"	50	50	Nil	50	100	0.84
Ordnance Parachute	BP Mig 23 Aircraft	200	200	188	12	6	2.46
Factory Kanpur	BP Mirage 2000	62	62	23	39	170	29.88
	Aircraft	02	02	25	57	170	29.00
	Pilot Para BMK-41	25	25	23	2	9	2.50
2000-01	PTA-M	600	600	400	200	50	103.88
	PTA-R	700	700	509	191	38	51.78
Ordnance Parachute	Suit NBC	7000	7000	5844	1156	20	44.68
Factory Kanpur	BP Mig 23 Aircraft	600	600	509	91	18	20.11
	BP Mig 29 Aircraft	275	275	250	25	10	8.75
	Socks Heavy Khaki	450000	450000	404608	45392	11	45.39
2001-02	Socks Heavy Khaki	300000	300000	150000	150000	100	141.00
Ordnance Parachute	PTA –M	800	1000	639	361	56	200.64
Factory Kanpur	PTA –R	Nil	300	Nil	300	100	90.00
	НАР	500	700	430	270	63	189.00
Ordnance Clothing				Nil			
Factory Shahjahanpur Ordnance Clothing Factory Avadi	Overall D.G.	20000	20000	6324	13676	216	85.58
Ordnance Clothing	Socks OG	1500000	1500000	819023	680977	83	540.56
Factory Shahjahanpur	Blanket	500	500	Nil	500	100	2.31
2002-03	PTA-M	800	800	300	500	167	277.90
Ordnance Parachute	PTA-R	1000	1000	700	300	43	90.00
Factory Kanpur	BP Mig-23 Aircraft	950	950	810	140	17	32.48
	Socks Wool Black	170000	170000	126000	44000	35	28.60
Ordnance Clothing Factory Shahjahanpur	Vest FSOG	500000	500000	110000	390000	355	812.29
Ordnance Clothing	Overall Combination Navy Blue	20000	20000	14114	5886	42	21.19
Factory Avadi	Overall Greenish Khaki	16000	16000	8220	7780	95	31.02
<u>2003-04</u>	Shirt Men Angola Drab	865000	865000	703200	161800	23	Not available
	Trouser BD Serge	554020	554020	452270	101750	22	873.69
Ordnance Clothing	Vest Men FS Woolen	500000		394317	105683	27	279.18
Factory Shahjahanpur	Suit BG	29000		11477	17523	153	333.01
	Coat CD I/L	200000	200000	180000	20000	11	175.00
Ordnance Parachute Factory Kanpur	HAP (M)	400		200	200	100	147.00
	BP Mig -23 Aircraft	516		Nil	516	100	119.71
	BP Jaguar Aircraft	200	200	60	140	233	56.00
	BP Mig -29 Aircraft	100		17	83	488	36.94
	BP Mig -21 Aircraft	500	500	270	230	85	40.71
	BP Mirage 2000 Aircraft	90	90	10	80	800	65.60
	Pilot Para BMK- 41 Kiran	62	62	Nil	62	100	88.85
					Т	'otal Rs :	5257.73 lakh

ſ	A NINEVUDE III
T	ANNEAUNE-III

Vear	Year Material				(<i>Referred to in sub paragraph 8.2.6</i>) Labour Overheads				
Principal items	Factory involved	Cost (Rs)	Percent- age of variation	Factory involved	Cost (Rs)	Percent- age of variation	Factory involved	Cost (Rs)	Percent- age of variation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1999-2000 Net Mosquito khaki	OEF Kanpur [▲]	206.19	24	OEF Hazratpur	2.44	1095	OEF Hazratpur	6.67	715
S.M.	OCF Avadi [▲]	276.70	34	OEF Kanpur	29.16		OEF Kanpur	54.33	
Tent 80 kg Fly outer	OEF Hazratpur	2553.61	0	OEF Hazratpur	599.71		OEF Hazratpur	1612.00	10
	OCF Avadi	2760.00	8	OCF Avadi	724.19	21	OCF Avadi	1470.11	
Overall Combination	-	-	-	OPF Kanpur OCF Avadi	5.20 41.25	693	OPF Kanpur OCF Avadi	10.21 83.74	720
2000-01 Jacket combat	OCF Avadi	180.84	20				OPF Kanpur	117.18	51
disruptive	OEF Hazratpur	249.62	38	-	-		OEF Hazratpur	177.38	51
Trouser combat disruptive	-	-	-	OEF Hazratpur	32.06	131	OPF Kanpur	46.65	205
				OCF Avadi	73.96		OCF Avadi	142.43	
Overall combat disruptive	OCF Shahjahanpur [▲]	391.08		OEF Hazratpur	4.52		OEF Hazratpur	10.64	
	OCF Avadi	513.20	31	OCF Avadi	25.90	473	OCF Avadi	49.88	369
Coat combat ICK				O PF Kanpur	46.48		OPF Kanpur	70.73	
	-	-	-	OEF Hazratpur	205.73	343	OEF Hazratpur	495.98	601
Shirt poly OG cotton	-	-	-	OCF Shahjahanpur	3.30		OCF Shahjahanpur	5.94	
				OPF Kanpur	34.53	946	OPF Kanpur	51.61	769
2001-02 Trouser combat	-	-	-	OEF Hazratpur	15.44	342	OEF Hazratpur	36.67	166
disruptive				OPF Kanpur	68.20		OPF Kanpur	97.46	
Overall combination disruptive	OCF Shahjahanpur	411.28		OEF Hazratpur	1.99		OEF Hazratpur	4.39	
	OCF Avadi	548.82	33	OCF Avadi	20.48	929	OCF Avadi	31.13	609
Coat combat ICK	OPF Kanpur •	701.25		OPF Kanpur	20.05		OPF Kanpur	29.97	
	OCF Shahjahanpur	763.65	9	OCF Shahjahanpur	226.84	1031	OCF Shahjahanpur	369.74	1134
Shirt poly OG cotton	-	-	-	OCF Shahjahanpur	4.39	1286	OCF Shahjahanpur	7.37	1134
				OPF Kanpur	60.85		OPF Kanpur	90.95	
2002-03				OPF Kanpur	41.28		OPF Kanpur	68.21	
Trouser combat disruptive	-	-	-	OEF Hazratpur	72.51	76	OEF Hazratpur	157.93	132
Overall combination disruptive	OCF Shahjahanpur	339.98		OCF Shahjahanpur	9.72		OCF Shahjahanpur	15.16	
	OEF Hazratpur	437.17	29	OPF Kanpur	57.19	488	OPF Kanpur	87.89	480
S.D.Para 8.5 M	OPF Kanpur	2712.22		OPF Kanpur	636.54		OPF Kanpur	1064.30	

(Referred to in sub paragraph 8.2.6)

[◆] OEF Kanpur → Ordnance Equipment Factory Kanpur [◆] OCF Avadi → Ordnance Clothing Factory Avadi [◆] OEF Hazratpur → Ordnance Equipment Factory Hazratpur [◆] OCF Shahjahanpur → Ordnance Clothing

Factory Shahjanpur

◆ OPF Kanpur → Ordnance Parachute Factory Kanpur

Year	Material			Labour			Overheads		
Principal items	Factory involved	Cost (Rs)	Percent- age of variation	Factory involved	Cost (Rs)	Percent- age of variation	Factory involved	Cost (Rs)	Percent- age of variation
	OEF Hazratpur	2918.68	8	OEF Hazratpur	812.18	28	OEF Hazratpur	1624.07	53
Coat combat disruptive ICK	OCF Shahjahanpur	683.29	16	OEF Hazratpur	11.19	1804	OEF Hazratpur	20.26	1516
	OEF Hazratpur	792.55		OCF Shahjahanpur	213.07		OCF Shahjahanpur	327.44	
Jacket ICK	-	-	-	OPF Kanpur OCF Shahjahanpur	61.65 100.03	62	-	-	
Coat combat disruptive with lining	OCF Shahjahanpur	372.45		OPF Kanpur	94.76		- OPF Kanpur	- 151.89	-
	OPF Kanpur	427.45	15	OCF Shahjahanpur	169.44	79	OCF Shahjahanpur	260.59	72
2003-04 Jacket combat	-	-	-	OEF Hazratpur	40.79		OEF Hazratpur	77.15	
disruptive				OCF Avadi	101.35	148	OCF Avadi	164.06	113
Socks men's wool				OPF Kanpur	7.55		OPF Kanpur	13.21	
OG	-	-	-	OCF Shahjahanpur	21.85	189	OCF Shahjahanpur	33.39	153
Overall combination disruptive	OCF Shahjahanpur	423.86	12	OCF Shahjahanpur	7.24	407	OCF Shahjahanpur	10.92	475
	OCF Avadi	475.84		OCF Avadi	36.74	1	OCF Avadi	62.84	

ANNEXURE-IV

Position of outstanding ATNs

(Referred to in paragra							
Report No. & Year	SI. No.	Para No.	Subject	Remarks			
6 of 2004	1.	7.1	Performance of Ordnance Factory Organisation	ATN not at all received			
	2.	7.2	Working of Metal and Steel Factory, Ishapore	- do -			
	3.	7.3	Functioning of CNC machines in Ordnance Factories	- do -			
	4.	7.4	Blocked inventory due to abrupt withdrawal of demand by user	- do -			
	5.	7.5	Loss due to failure of cartridge cases in proof	- do -			
	6.	7.6	Receipt of defective stores due to incorrect specification in the supply order	- do -			
	7.	7.7	Injudicious procurement of spares	- do -			
	8.	7.8	Loss due to non-replacement of defective instruments	- do -			
	9.	7.9	Uneconomical procurement of machines	- do -			
	10.	7.10	Failure to develop a propellant	- do -			
	11.	7.11	Non-recovery of inspection charges	- do -			
	12.	7.13	Suppression of excess consumption of components	- do -			
	13.	7.14	Deterioration of forgings due to long storage	- do -			

(Referred to in paragraph 8.11)