# Report of the Comptroller and Auditor General of India

**for the year ended March 2000**



**Union Government (Defence Services)**

Army and Ordnance Factories

**No. 7 of 2001**

## CONTENTS

# PREFATORY REMARKS

This Report for the year ended March 2000 has been prepared for submission to the President under Article 151 of the Constitution. It relates to matters arising from the Appropriation Accounts of the Defence Services for 1999-2000 together with other points arising from the test audit of the financial transactions of Ministry of Defence, Army and Ordnance Factories including Defence Research and Development Organisations and Border Roads Organisation.

The Report includes 68 Paragraphs and four Reviews on (i) Manpower in Military Engineer Services (ii) Staff projects completed by Vehicle Research and Development Establishment (iii) Indigenous production of 5.56 mm Indian Small Arms Systems (iv) Functioning of Vehicle Factory Jabalpur.

The cases mentioned in this Report are among those which came to notice in the course of audit during 1999-2000 and 2000-2001 as well as those which came to notice in earlier years but could not be included in the previous Reports.

# OVERVIEW

## Accounts of the Defence Services

The budget provision for the Defence Services under all the five grants for Army, Navy, Air Force, Ordnance Factories and Capital outlay were Rs 50297.30 crore. The total actual expenditure aggregated to Rs 48656.53 crore. The Ministry obtained overall supplementary grants of Rs 3250.42 crore which remained unutilised to the extent of 04 *per cent* to 94 *per cent* in the voted section of grants of Army, Navy and Air Force. The unspent amount exceeding Rs 100 crore had occurred in all the five grants of Defence Services under voted section which calls for submission of explanatory notes to Public Accounts Committee. On the other hand, an excess expenditure of Rs 69 thousand in the charged section of Grant No.21 occurred over the approved provision, requires regularisation by the Parliament.

***(Chapter I)***

## Manpower in Military Engineer Services

- Manpower in MES comprising of both Army and Civilian officers required to be maintained in the ratio laid down by the Government were not adhered to. Posts held by higher ranking Army officers were in excess of the prescribed norms, which involved additional burden of Rs 9.06 crore on MES establishment.

- In respect of subordinate staff also, the ratio prescribed by the Ministry for posting Civilian and Army personnel were not adhered to. Posting of Army personnel in excess of the ratio varied from 17 to 60 *per cent* in four commands and in one command it was 636 *per cent* during a particular year. In the combined post of store keeper Grade I and II surplus Army personnel were posted during the period 1995-96, 1996-97 and 1999-2000. Such surpluses indicate idle manpower costed at Rs 2.87 crore.

- Though the Ministry had sanctioned 592 MES formations like CEs, CsWE and GEs, only 493 such formations were actually functional during the period 1995-96 to 1999-2000. This would indicate that the Ministry was more liberal in sanctioning such formations.

- Audit observed through test check of 145 formations that these formations were functioning either with much less or far in excess of the prescribed workload norms.

- MES formations like CEs, CsWE, GEs and AGEs(I) are authorised specified strength of officers and subordinate staff. Test check of sanctioned and actual posting of officers in five zonal CEs revealed that neither the sanctioned nor the posted strength had any relation either to the prescribed work load norms or to the actual work load handled.

- Even in respect of sanctioning of subordinate staff, test check revealed that a command CE not only sanctioned staff in excess of the prescribed norms, but also posted more staff even against the posts sanctioned by himself.

***(Paragraph 35)***

## Staff Projects completed by Vehicle Research and Development Establishment

- Reassessment of requirements, redefinition of design parameters, developmental activities undertaken on vehicles under phasing out and adverse indigenous cost vis-à-vis import cost, resulted in only four out of 18 Staff projects successfully completed by VRDE during the period 1988-98, culminating into bulk production.

- VRDE incurred avoidable expenditure of Rs 5.25 crore by continuing developmental activities on two specialist role vehicles, though the need for the same ceased to exist.

- Development of three specialist role vehicles undertaken at the instance of the users and successfully developed by VRDE at a cost of Rs 1.90 crore are yet to be bulk produced as users have not placed any orders even after 10 years of the successful development.

- Insistence by the Army at the first instance for development of "Operation Theatre on Wheels" based on house type concept, and a decade later insisting for the same based on containerised concept resulted in wasteful expenditure of Rs 21.35 lakh on the development of the operation theatre as house type. Further the troops in forward areas were also deprived of the medical facility all these years.

- Indecision on the part of the Army authorities in selecting a proper chassis for mounting the twin Air Defence gun to give it better mobility, remained unfulfilled even after 13 years. Further the developmental work carried out by VRDE on an unsuitable chassis at Rs 19.63 lakh was also rendered infructuous.

- Though the Army authorities were aware since 1971 that the chassis existing with the Army were to be replaced with more efficient chassis, three projects valuing Rs 15.22 lakh were undertaken on these chassis, ultimately not to be bulk produced.

***(Paragraph 42)***

**Loss due to cavitation/cracks in high explosive filling of shells**

105 mm shells manufactured in 1982 and 1984 had cavities in the high explosive fillings and the 1988 manufacture had cracks in the fillings. Efforts to rectify the defect, as these shells have 18 years shelf life, has not borne fruit. The entire quantity of 8124 shells of 1982 and 1984 manufacture and 2000 shells of 1988 manufacture were declared unserviceable. The value of these shells was Rs 2.76 crore.

***(Paragraph 23)***

**Unauthorised use of Defence land by a club at Mumbai**

Government leased out a bunglow in Mumbai in 1928 to Quarter Master General for establishing a United Services Club. The club over the years occupied more buildings and land without proper sanction. The number of buildings unauthorisedly occupied rose to 22 including a Squash Court in 1988. Though the request of the club for leasing of land was turned down by the Maharashtra and Gujarat Area Headquarters in 1981 on security grounds, the club occupied 53.50 acres of A-1 land for use as a Golf course without any sanction. The club opened its membership to civilians and started commercially exploiting the assets occupied by it by hiring out the facilities for private functions. Interestingly, while the Defence Estates Officer assessed the annual rent payable by the club at Rs 2.73 crore per annum, for 16939 square meters of land (excluding the Golf course), the club was paying only Rs 0.36 lakh per annum towards rentals for land and buildings assessed by a Board of officers in July 1989.

***(Paragraph 24)***

**Misuse of delegated powers in special repairs to buildings and diversion of staff for use by a private college**

Based on a proposal submitted by the Ministry, Cabinet in May 2000 approved leasing of 9.20 acres of defence land together with 16 buildings for a period of 30 years to Army Welfare Education Society (a private society) for establishment of Army College of Dental Science at Secunderabad. The Cabinet approval assumed that the lease period of 30 years allowed was only to satisfy the condition imposed by the Dental Council of India for setting up the college, otherwise the society would shift the college after three years to a regular premises to be set up on the land allotted by the State Government of Andhra Pradesh. The proposal, therefore, provided for a notional rent of Rupee one per annum for a period of three years out of the total lease period of 30 years as against the commercial rent of Rs 52.10 lakh per annum.

At the lower level, under the pretext of making habitable the premises for allotment to units, special repairs amounting to Rs 60 lakh were carried out in 1998 though the intention was to hand over the same to the society for setting up the college. Further nine JCOs/ORs married accommodation were also handed over to the college authorities by the Station Headquarters Secunderabad without proper re-appropriation sanctions. Two Officers, three JCOs and six ORs were diverted from their existing post and deployed in works related to the setting up of the college. There was, thus, gross misuse of delegated powers and lack of transparency with the sole purpose of extending undue benefit to the society.

***(Paragraph 25)***

## Undue benefit to a private society

Chief of Staff, Headquarters Western Command in December 1998 approved use of surplus building held by a unit by Army Institute of Law to be set up by the Army Welfare Education Society, registered as a private society. Sub Area Commander of Punjab, Haryana and Himachal Pradesh Sub-Area, in January 1999 sanctioned Rs 32.21 lakh from Public Fund to carry out special repairs to these buildings on the pretext of renovating the buildings to make them habitable for JCOs/ORs of the unit. The sanctioned amount was further increased to Rs 43.46 lakh to provide additional rooms and false ceiling to some of the buildings. Sanctioning of expenditure from Public fund for the benefit of a private society is a clear case of misuse of delegated powers by the Sub-Area Commander.

***(Paragraph 27)***

## Wrongful credit of sale proceeds of usufructs to Regimental Fund

Air Defence College located at 'Gopalpur-on-sea', in contravention of the orders issued by the Ministry in December 1995, engaged troops for maintenance of 460.25 acres of Orchard area planted with fruit bearing trees, and credited the entire sale proceeds of usufructs to Regimental Funds. The sale proceeds credited to the Regimental Funds during the period 1996-97 to 1998-99 was Rs 1.32 crore.

***(Paragraph 32)***

## Hiring of building by Defence Estates Officer from an unauthorised party

Defence land measuring 4.25 acres and buildings thereon leased to Madras Diocesan Trust Association (Association) for a period of 30 years from 1931 was renewed for further 30 years up to August 1991 with annual rental of Rs 41.25. One of the buildings leased out was allowed for exclusive use by Young Men's Christian Association (YMCA). The DEO entered into an agreement with YMCA in 1975 for hiring the building at monthly rental of Rs 1345 for providing office accommodation for a MES formation. The DEO even got the Ministry's sanction for enhancement of the rent for the building to Rs 5500 from January 1991, without linking the fact that the building and the land it was located upon belonged to the Ministry of Defence. It was only in May 1999 it was realized by the DEO that in hiring of the building he is dealing with an unauthorised party, which may lead to legal complications. Yet, the DEO did not terminate the lease and take over possession of the assets as of March 2000.

***(Paragraph 26)***

### Irregular construction of married officer accommodation in a field area

An Infantry Division Commander with the approval of Command Headquarters and Army Headquarters sanctioned Rs 19.71 lakh for the construction of 'Flag Staff House', the official family accommodation of the Divisional Commander, in contravention of the pre-requisite with which Ministry classified the station as a field area and a non-family station.

***(Paragraph 31)***

### Procurement of an incomplete equipment

Ministry in February 1988 placed order on a firm for supply of 500 sets of Periscope Night Vision Device and modification kits for fitment of the device in the Tanks. As per the terms of supply, the firm was to incorporate in the devices, Image Intensifier tubes to be supplied by the Department of Defence Supplies. Department of Defence Supplies failed to supply the Image Intensifier tubes to the firm till December 1993. In December 1993, the Ministry amended the conditions of the supply order to allow the firm to supply the devices without the Image Intensifier tubes. The devices and the modification kits supplied by the firm between February 1989 and March 1994 at a total cost of Rs 3 crore were lying in stock in incomplete state for the last six years for want of the Image Intensifier tubes.

***(Paragraph 15)***

### Cancellation of unauthorised works at the instance of audit

Audit observations on unauthorised works sanctioned by lower Competent Financial Authorites led to cancellations of the sanctions aggregating to Rs 1.52 crore.

***(Paragraph 16)***

### Unauthorised expenditure on operation of unsanctioned posts

Military Wing of the Embassy of India, Paris operated three posts of local employees since June 1993, though such posts were not sanctioned by the Ministry. The operation of such local posts was continuing as of November 2000, and an expenditure of Rs 1.25 crore was incurred on their pay and allowances etc. from June 1993 to October 2000. The Ministry failed to notice the irregularity, though the budget proposals of the Embassy specifically included provisions for the local posts.

***(Paragraph 17)***

## Non-utilisation of accommodation due to defective projection and planning of essential services

Two Boards of officers consisting of representatives from Military Engineer Services and local Naval Units, fully aware that the isolated location earmarked for construction lacked essential services like water and electricity, recommended in 1994 and 1995 construction of office and living accommodations for two Naval Units at this location at Bangalore. To avoid going to the Ministry, the Naval Headquarters by splitting up the project, accorded two sanctions in 1995 and 1996 for an aggregate sum of Rs 1.77 crore. Even before establishing the water supply through drilling of bore wells and electric supply from the State Electricity Board, contracts for the buildings were concluded in July/October 1997 and completed during 1998 at a cost of Rs 2.19 crore. The works services for external water and electric supply system belatedly sanctioned in March 1999 and November 1998 were completed in February 2000.

The buildings were, however, not taken over by the users as of May 2000 due to non-functioning of water supply system. Expenditure on rent reimbursement and watch and ward of vacant buildings from June 1998 amounted to Rs 6.70 lakh. Thus, defective planning led to non-return of any value for money invested.

***(Paragraph 36)***

## Loss due to non-levy of departmental charges by Military Engineer Services

In total disregard to the regulatory provisions Garrison Engineer (Independent) (R&D) Kanchanbagh failed to levy and realise departmental charges of Rs 65.38 lakh for works services executed by him during 1995 to 1999 for International Advanced Research Centre coming under Department of Science and Technology and for Non Ferrous Materials Technology Development Centre registered as a society and functioning on commercial terms.

***(Paragraph 40)***

## Non-availing of an advantageous offer

Bayer (India) Ltd, in their quote for supply of 60000 litres of Bagon 'C' offered 15500 litres of free supply if the orders are placed for 44500 litres. Thus the rates quoted by the firm worked out cheaper when the free supply was also considered. The Director General Supplies and Transport, however, placed orders ultimately aggregating 60000 litres. Splitting of orders led to avoidable additional expenditure of Rs 85 lakh.

***(Paragraph 28)***

## Infructuous expenditure on irregular execution of a work

Ministry of External Affairs in February 1995 sanctioned Rs 9.25 crore for the construction of Pasakha – Monitor road between 0 and 10 Km, from Pasakha end. However, Commander of a Border Road Task Force ordered construction of the road from both Pasakha and Monitor ends. Due to non-availability of adequate funds the work was suspended in May 1997 after incurring Rs 11.13 crore. The incomplete work was left unattended without any maintenance leading to damages in the newly cut formation work. While revising the cost of construction of the road to Rs 54.32 crore in June 1999, the Ministry of External Affairs made provision of Rs 5.02 crore for rectification to the damaged portion of the road. Thus, the Border Road Task Force Commander's decision to construct the road from both the ends, and not carrying out any maintenance of the unfinished portion of the road resulted in additional expenditure of Rs 5.02 crore on rectifications.

***(Paragraph 43)***

## Non-utilisation of buildings constructed at a cost of Rs 4.80 crore

Buildings together with external services created at Chandigarh at a cost of Rs 4.80 crore in 1994-95 for providing permanent accommodation to a Border Road Task Force remained unutilised since 1996 as the Border Road Task Force was moved out in June 1996 to meet its strategic functions. The vacant buildings are being looked after by deploying a Pioneer Company, though they are meant for road construction activities. The pay and allowances paid to these personnel between July 1996 and July 2000 was of the order of Rs 1.21 crore.

***(Paragraph 44)***

# Ordnance Factory Organisation

## Performance of Ordnance Factory Organisation

The Ordnance Factory Organisation comprising of 39 factories with a manpower of 1.46 lakh are engaged in production of arms, ammunition, equipment, clothing etc. primarily for the Armed Forces of the Country. The value of production aggregated to Rs 7086.49 crore in 1999-2000 which was 30.24 percent higher than the value of production of Rs 5441.13 crore in 1998-99.

The total expenditure of Ordnance Factory Organisation has increased steadily over the years.

Production of 69 out of 364 items for which demands existed and target were fixed, was behind schedule. Ordnance Factory Board did not fix targets for production of 57 items.

Audit noticed a few cases where issue voucher had been prepared even before the manufacture/inspection of items which had affected the reliability and completeness of Annual Accounts.

***(Paragraph 46)***

## Indigenous production of 5.56 mm Indian Small Arms System

Army's plan to fully equip the forces with 5.56 mm small arms system consisting of rifle, light machine gun (LMG) and carbine by 1998 in place of 7.62 mm weapons system was yet to be fully implemented as of March 2000.

The development of rifle and LMG and its ammunition was badly delayed. Although Army accorded clearance for bulk production of rifle in July 1992 subject to removal of defects, bulk production commenced only after completion of design refinements in December 1994. The rifles are still not free from some defects. Similarly, even after Army's clearance for bulk production of LMG in May 1998, some of the major defects like breakage of carrying handle, change lever assembly, crack of retainer and sleeve bipod and barrel bulge etc. still persist. Armament Research and Development Establishment Pune and Small Arms Factory Kanpur failed to produce carbine to Army's satisfaction even after a lapse of 13 years resulting in foreclosure of the requirement of carbine by Army in January 2000. Although Army accepted mark-I ball ammunition having low velocity in December 1991 as an interim measure, development of mark -II ammunition having higher velocity could not be established even after a lapse of nine years.

Ordnance factories supplied 2.75 lakh rifles and LMGs and 26.55 crore rounds of ammunition to Army against its order of 2.99 lakh weapons and 43.46 crore rounds respectively during 1993-1994 to 1999-2000 due to delayed creation of capacity for manufacture.

Due to Ordnance factory's delayed and short supply of weapons and ammunition Army imported 10 crore rounds of ammunition and 1 lakh AK-47 rifles at a cost of Rs 85 crore during 1995-1997.

***(Paragraph 47)***

## Functioning of Vehicle Factory Jabalpur

Vehicle Factory Jabalpur was established in 1969-70 to manufacture three types of non-fighting vehicles for the Army viz. 3 ton truck -Shaktiman, 1 ton vehicle - Nissan and 0.25 ton vehicle - Jonga. It was expected to produce 9000/10000 vehicles a year with 54/60 hours of working per week after augmentation of capacity in 1988 and total investment of Rs 73.55 crore.

Army shifted their preferences to new generation of vehicles viz. 5/7.5 ton Ashok Leyland (Stallion) and 2.5 ton Telco (LPTA) resulting in reduction of their order for old class of vehicles and consequent underutilisation of man-hours ranging between 36 and 70 *per cent*. However, inspite of 522.21 lakh unutilised man-hours during 1994-95 to 1999-2000 the factory resorted to overtime work of 229.05 lakh man-hours involving payment of Rs 52.51 crore.

Vehicle Factory Jabalpur is at present assembling Stallion and LPTA vehicles by procuring semi knocked down components from Ashok Leyland/ Telco. The factory incurred loss of Rs.20.64 crore in issue of 4081 such vehicles to Army during 1997-98 and 1998-99. Besides, Army also met their requirement of 5080 numbers of the same vehicles from trade at a cost of Rs 427.61 crore during 1993-94 to 1998-99.

The factory had also ventured into manufacture of Jonga for civil market with a view to utilising surplus capacity but failed due to inadequate understanding of the market and customer preferences. These as well as major defects in the vehicles resulted in locking up of public money to the tune of Rs 4.86 crore on account of unsold vehicles and unutilised engines. General Manager of the factory also incurred infructuous expenditure of Rs 16.11 crore for procurement of press tools for civil Jonga and that too, without any sanction from competent financial authority.

Since the Indian automobile manufacturing sector has matured enough to take care of Army's requirement of vehicles, continuation of Vehicle Factory Jabalpur just for assembling semi knocked down components received from Telco and Ashok Leyland vehicle hardly serves any purpose.

***(Paragraph 48)***

### Failure to produce established items

Failure of Gun Carriage Factory Jabalpur to locate source for 1.6 mm thick alloy steel sheet required in production of Case Dial Sight and Mount of Indian Field Gun Mark-I coupled with lapse in reviewing progress of manufacture resulted in nugatory expenditure of Rs 41.03 lakh.

***(Paragraph 49)***

### Production of stores without demand

The General Managers of Small Arms Factory Kanpur and Machine Tool Prototype Factory Ambernath manufactured Jerricans and four Bullet Weighing and another four Bullet Gauging machines respectively without any demand from Services/civil trade and sister factory resulting in blockage of Rs 3.02 crore for want of potential buyers.

***(Paragraph 50)***

### Non-utilisation of material procured for production of a packing box

Decision of the General Manager Ordnance Factory Chanda to manufacture ammunition container C-40A boxes in-house and procurement of raw material worth Rs 1.02 crore was injudicious since these boxes were available regularly from trade at cheaper rates.

***(Paragraph 51)***

### Suppression of abnormal rejection in production

Adoption of incorrect methodology in calculation of rejection based on processed quantity instead of existing provision of calculating rejection based on ordered quantity by Ordnance Factory Muradnagar resulted in suppression of abnormal rejections worth Rs 6.37 crore in manufacture of five items.

***(Paragraph 52)***

### Loss due to defective manufacture of an ammunition

In manufacture of 25221 filled shells 105 mm IFG HESH ammunition by Ordnance Factory Chanda, to be supplied to a Central Ammunition Depot, 9130 shells were rejected in proof at a Central Proof Establishment due to improper scabbing resulting in loss of Rs 6.06 crore being the value of abnormal rejection of 8585 shells.

***(Paragraph 53)***

**Loss due to inefficient processing of input material**

Ordnance Factory Ambernath incurred a loss of Rs 4.05 crore towards excessive generation of brass scrap owing to inefficient processing of brass coils during 1998-99 while undertaking manufacture of 5.56 mm cartridge cases.

***(Paragraph 54)***

**Loss due to defective manufacture**

Defective manufacture of 105 mm IFG BE smoke (filled) ammunition by Ordnance Factory Chanda led to rejection of 3153 units during firing proof at a Central Proof Establishment resulting in loss of Rs 39 lakh.

***(Paragraph 55)***

**Delay in manufacture of bridge**

Delay in manufacture and supply of Manually Launched Assault Bridge by Ordnance Factory Ambajhari owing to frequent changes in the design made by Research and Development Establishment (Engineers), Pune resulted in cost overrun of Rs 2.33 crore.

***(Paragraph 56)***

**Loss due to rejection of primers in proof**

Defective manufacture of empty Primers at Gun and Shell Factory Cossipore resulted in rejection of 8205 units valuing Rs 45.50 lakh in proof at a Proof and Experimental Establishment and the prospect of its rectification is bleak since the primers have already been declared obsolete.

***(Paragraph 57)***

**Avoidable import of stores**

Import of 100 Mounting of Automatic Control Units by Heavy Vehicle Factory Avadi for T-72 tanks between October 1998 and February 1999 was avoidable and resulted in foreign exchange outgo of Rs 18 lakh since the item was fully established in India.

***(Paragraph 58)***

**Avoidable evaporation loss of volatile liquid due to excess procurement**

Procurement of 1095 tonne ammonia anhydrous during 1998-99 by High Explosives Factory Kirkee instead of 823 tonne resulted in avoidable evaporation loss valued at Rs 15.40 lakh.

***(Paragraph 59)***

**Avoidable procurement of precipitating pans**

Import of two precipitating pans at a cost of Rs 48.35 lakh by High Explosive Factory Kirkee was unnecessary since Ammunition Factory Kirkee projected their requirement of wet lead styphnate on a higher side in comparison to its actual requirement which could have easily been met with existing pans.

***(Paragraph 60)***

**Injudicious procurement of tripods not required by users**

Ordnance Factory Medak despite being aware that tripod of BMP-IIK vehicles was not acceptable to the Army procured 150 nos costing Rs 22.50 lakh from Bharat Dynamics Limited which was injudicious.

***(Paragraph 61)***

**Non-commissioning of costly imported machine**

A computer numerically controlled flow forming machine procured by Metal and Steel Factory at a cost of Rs 1.14 crore remained uncommissioned since its erection.

***(Paragraph 62)***

**Avoidable import of engines**

Import of 35 engines of Armoured Recovery Vehicles by the Heavy Vehicles Factory Avadi through Bharat Heavy Electricals Limited Trichy instead of procuring the same from Engine Factory Avadi was injudicious since it not only involved an avoidable outgo of foreign exchange to the extent of Rs 7.69 crore but also was uneconomical by Rs 2.97 crore.

***(Paragraph 63)***

**Loss due to lax process control**

Lax process control leading to clearance of stores worth Rs 3.85 crore by the Quality Control division of consignor's factory resulted in its subsequent rejection at consignee's factory owing to various defects.

***(Paragraph 64)***

**Delay in check proof of imported rockets**

Failure of the Ministry of Defence in carrying out timely inspection of 23500 units of imported rockets worth Rs 42.30 crore led to delayed quality claim on rejected fuzes of rockets on the foreign firm and its repudiation by the latter resulting in acceptance of fuzes of rockets with reduced shelf life.

***(Paragraph 65)***

## Non-recovery of Rs 1.08 crore from a defaulting firm

Ministry of Defence could not recover Rs 1.08 crore from a firm even though the fact of rejection of Time and Impact Fuze of 84mm HE ammunition supplied by the firm had been intimated in September 1998.

***(Paragraph 66)***

## Short closure of indent due to delay in production

Failure of Gun and Shell Factory Cossipore to supply spare barrels of 73 mm gun within stipulated delivery schedule to the Army resulted in short closure of production by the former and financial repercussion of Rs 2.53 crore at former's end towards surplus inventories.

***(Paragraph 67)***

## Extra expenditure in rectification of defective boxes

Procurement of defective container boxes, accepted in inspection by Area Inspector, Senior Quality Assurance Establishment (Armament)/ Senior Quality Assurance Officer resulted in an extra expenditure of Rs 42.85 lakh incurred on account of repair of defective boxes, the cost of repair was not only more than double the cost of procurement but was also higher than the rate at which of fresh boxes were available.

***(Paragraph 68)***

## Loss due to improper storage

Bad storage at Ordnance Factory Chanda led to corrosion and rejection of 800 empty shells worth Rs 32 lakh.

***(Paragraph 69)***

## Questionable procurement of furnace oil

Holding of furnace oil by the General Manager Ordnance Factory Muradnagar to the extent of 4.07 lakh litres to 10.82 lakh litres during February 1999 to November 1999 was dubious since the storage capacity at the factory was only 4 lakh litres, resulting in doubtful receipt of 6.82 lakh litres furnace oil worth Rs 47.27 lakh.

***(Paragraph 70)***

## Response of ministries/departments to Draft Audit Paragraphs

As per the Government instructions issued at the instance of Public Accounts Committee, the Ministries are required to send their response to the Draft Paragraphs forwarded demi-officially to the Secretaries within six weeks. Defence Ministry did not send response to 25 paragraphs included in this Report. Similarly, Department of Defence Production and Supplies did not send its response for 16 paragraphs.

***(Paragraph 21 and 72)***

# CHAPTER I : ACCOUNTS OF THE DEFENCE SERVICES

## 1. Defence Expenditure

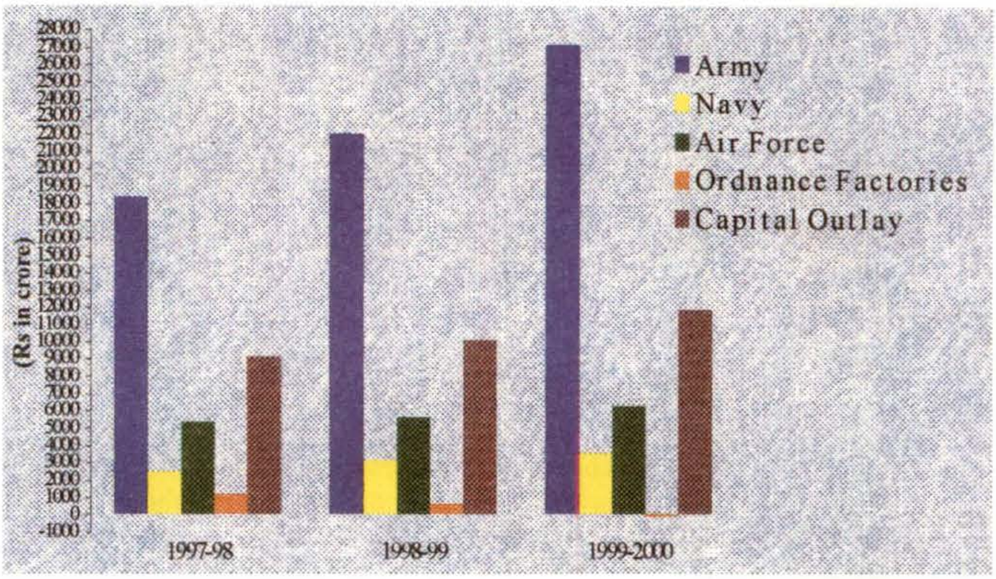
The defence expenditure on major components during 1997-2000 was as under:

**(Rs in crore)**

| | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|
| Army | 18353.47 | 21994.26 | 27134.92 |
| Navy | 2476.85 | 3109.15 | 3542.92 |
| Air Force | 5337.84 | 5615.45 | 6250.42 |
| Ordnance Factories | 1207.54 | 608.71 | -126.57 * |
| Capital Outlay on Defence Services | | | |
| *Army* | *2003.35* | *2747.98* | *3485.31* |
| *Navy* | *2337.35* | *2972.90* | *3341.87* |
| *AirForce* | *3962.44* | *3658.14* | *4224.32* |
| *Ordnance Factories* | *121.77* | *93.95* | *87.07* |
| *R&D Organisation* | *673.54* | *560.99* | *714.16* |
| *Inspection Organisation* | *5.06* | *1.98* | *2.11* |
| ***Total Capital Outlay*** | ***9103.51*** | ***10035.94*** | ***11854.84*** |
| **GrandTotal** | **36479.21** | **41363.51** | **48656.53** |

*The net savings under the grant was due to more issues to services than anticipated.

The expenditure is represented in the bar chart below:



## 2. Budget and actuals

The summarised position of expenditure during 1999-2000 against Grants/appropriations authorised in the schedules appended to various Appropriation Acts passed by Parliament during the year under Articles 114 and 115 of the Constitution of India is given below:

(Rs in crore)

| | Authorisation | | | Expenditure | Total |
|---|---|---|---|---|---|
| | Original Grant/ Appropriation | Supple-mentary grant | Total | Actual expenditure | unspent provision(-) Excess (+) |
| **REVENUE** | | | | | |
| **18 – Army** | | | | | |
| Voted | 24376.76 | 2860.00 | 27236.76 | 27127.62 | (-)109.14 |
| Charged | 7.83 | -- | 7.83 | 7.30 | (-)0.53 |
| **19 - Navy** | | | | | |
| Voted | 3413.11 | 236.00 | 3649.11 | 3542.65 | (-)106.46 |
| Charged | 2.75 | -- | 2.75 | 0.27 | (-)2.48 |
| **20-Air Force** | | | | | |
| Voted | 6241.23 | 147.00 | 6388.23 | 6249.63 | (-)138.60 |
| Charged | 1.08 | 0.33 | 1.41 | 0.79 | (-)0.62 |
| **21 – Ordnance Factories** | | | | | |
| Voted | 774.28 | -- | 774.28 | (-)126.74 | (-)901.02 |
| Charged | 0.16 | -- | 0.16 | 0.17 | (+)0.01 |
| **Capital** | | | | | |
| **22 – Capital outlay on Defence Services** | | | | | |
| Voted | 12222.32 | -- | 12222.32 | 11840.40 | (-)381.92 |
| Charged | 7.36 | 7.09 | 14.45 | 14.44 | (-)0.01 |

The total budget provision for the Defence Services under the five Demands for Grants was Rs 50297.30 crore against which the actual expenditure aggregated to Rs 48656.53 crore. As a result, an amount of Rs 1640.77 crore (net) remained unutilised in the grants of Defence Services. {Army: Rs-109.67 crore (0.40%),Navy Rs-108.94 crore (2.98%), Air Force Rs-139.22 crore (2.18%), Ordnance Factories Rs –901.01 crore (116.34 %) and Capital outlay Rs –381.93 crore (3.12%)}

## 3. Control over expenditure

In the following cases, Supplementary grants obtained in December 1999 under voted section were not utilised fully resulting in unspent provision of more than Rs 100 crore.

(Rs in crore)

| Grant No. | Total Supplementary | Unspent provision | Percentage of unspent provision with reference to Supplementary Grant |
|---|---|---|---|
| 18-Defence Services-Army | 2860.00 | 109.14 | 3.82 |
| 19-Defence Services-Navy | 236.00 | 106.46 | 45.11 |
| 20-Defence Services-Air Force | 147.00 | 138.60 | 94.29 |

The Supplementary grants obtained by the Ministry remained unutilised to the extent of 45 *per cent* and 94 *per cent* under the grants of Navy and Air Force respectively which indicates that the Supplementary Demands were unrealistic.

## 4. Injudicious re-appropriation

Unspent provision/excess of more than Rs. 5 crore was registered in the voted section of following cases, where re-appropriation from/to various heads were made at the end of the financial year:

(Rs in crore)

| Grant No. Minor Head | Sanctioned grant | Re-appropriation | Final grant | Actual Expenditure | Excess(+) Unspent provision (-) With reference to provision after re-appropriation |
|---|---|---|---|---|---|
| **18-Defence Services-Army** | | | | | |
| 101- Pay & Allowances of Army | 9199.82 | (+)220.46 | 9420.28 | 9477.11 | (+)56.83 |
| 104- Pay & Allowances of Civilians | 1186.00 | (-)18.76 | 1167.24 | 1144.94 | (-)22.30 |
| 105-Transportation | 851.45 (O+S) | (-)3.57 | 847.88 | 873.23 | (+)25.35 |
| 109- Inspection Organisation | 389.26 (O+S) | (-)36.13 | 353.13 | 340.33 | (-)12.80 |
| 110- Stores | 10367.85 (O+S) | (-)230.43 | 10137.42 | 9990.00 | (-)147.42 |
| 111- Works | 1617.62 (O+S) | (+)100.00 | 1717.62 | 1704.85 | (-)12.77 |

| | | | | | |
|---|---|---|---|---|---|
| 113- N.C.C. | 217.94 (O+S) | (+)7.23 | 225.17 | 235.91 | (+)10.74 |
| 800- Other Expenditure | 486.42 (O+S) | (-)12.26 | 474.16 | 457.57 | (-)16.59 |
| **19- Defence Services- Navy** | | | | | |
| 101- Pay & Allowances of Navy | 673.15 (O+S) | (-)64.15 | 609.00 | 622.35 | (+)13.35 |
| 110- Stores | 1464.44 (O+S) | (-)197.96 | 1266.48 | 1245.46 | (-)21.02 |
| 111-Works | 299.00 (O+S) | (-)2.34 | 296.66 | 290.22 | (-)6.44 |
| 800- Other Expenditure | 645.47 (O+S) | (+)151.81 | 797.28 | 821.39 | (+)24.11 |
| **20- Defence Services- Air Force** | | | | | |
| 110- Stores | 3618.07 | (+)25.38 | 3643.45 | 3633.58 | (-)9.87 |
| 111- Works | 472.77 (O+S) | (+)2.10 | 474.87 | 469.52 | (-)5.35 |
| **21- Defence Ordnance Factories** | | | | | |
| 054-Manufacture | 1649.92 | (-)29.92 | 1620.00 | 1606.14 | (-)13.86 |
| 901 to 904- **Deduct** – Recoveries for Supplies to Army, Navy, Air force etc. | -4257.61 | (-)-888.89 | -5146.50 | -5124.43 | (+)22.07 |
| **22- Capital Outlay on Defence Services** | | | | | |
| 01/101-Aircraft and Aero-engine | 189.86 | (+)134.14 | 324.00 | 251.52 | (-)72.48 |
| 01/102-Heavy & Medium Vehicle | 281.72 | (+)78.45 | 360.17 | 372.79 | (+)12.62 |
| 01/103-Other Equipments | 2763.91 | (-)160.58 | 2603.33 | 2355.85 | (-)247.48 |
| 02/202-Construction Works | 110.00 | (-)5.27 | 104.73 | 99.25 | (-)5.48 |
| 02/204- Naval Fleet | 2431.00 | (+)113.01 | 2544.01 | 2498.57 | (-)45.44 |
| 02/205- Naval Dockyards | 374.95 | (-)76.31 | 298.64 | 293.25 | (-)5.39 |
| 03/103- Other Equipment | 835.00 | (+)442.42 | 1277.42 | 1264.62 | (-)12.80 |
| 04/052- Machinery & Equipment | 80.00 | (-)35.00 | 45.00 | 39.02 | (-)5.98 |

O=Original Provision S=Supplementary Grant

Thus, re-appropriation made during the year were not assessed properly and indicate defective assumption of expenditure under the above-mentioned heads.

## 5. Unspent provision in grant(s) exceeding Rs 100 crore

Large unspent provision in a grant or appropriation are indicative of deficient budgeting and poor financial management. During the year 1998-99 unspent provision of Rs 100 crore and above occurred in the voted section of three grants only whereas during 1999-2000 it occurred in all the five grants of Defence Services as per details as under:

**(Rs in crore)**

| Grant No. | Sanctioned Grant/ appropriation (Voted) | Actual expenditure | Unspent provision (%) | Reasons |
|---|---|---|---|---|
| 18-Defence Services -Army | 27236.76 | 27127.62 | 109.14 (0.40) | Non-materialisation of certain contracts, non-implementation of ACP Scheme, delay in supply of tools, plants & machinery etc. |
| 19-Defence Services - Navy | 3649.11 | 3542.65 | 106.46 (2.92) | Delay in implementation of ACP scheme, supply of ammunition, conclusion of certain contracts, receipt of electricity/tariff bills |
| 20-Defence Services -Air force | 6388.23 | 6249.63 | 138.60 (2.17) | Lower expenditure under local allowances, slippage in supplies of Stores, downward revision of exchange rate |
| 21-Defence Ordnance Factories | 774.28 | (-)126.74 | 901.02 (116.37) | Less expenditure on overtime, Electricity and Water, withdrawal of material from stockpile, delay in completion of works |
| 22-Capital Outlay on Defence Services | 12222.32 | 11840.40 | 381.92 (3.12) | Non-materialisation of new-contracts, payment to a foreign supplier, certain projects, delay in supply of Stores/ equipment by the foreign suppliers |

This would need submission of explanatory note to the PAC.

## 6. Excess over Grant/appropriation

An excess expenditure of Rs 69 thousand registered in the charged section of Grant No.21-Defence Ordnance Factories during 1999-2000 was as under:

**(Rs in thousand)**

| Defence Ordnance Factories | Original grant/ appropriation | Actual expenditure | Excess |
|---|---|---|---|
| Grant No.21-Charged | 1600 | 1669 | 69 |

The excess over grant/appropriation requires regularisation under Article 115(1)(b) of the Constitution of India by the Parliament.

## 7. Persistent unspent provision

Large amounts of unspent provision exceeding Rs 5 crore in the voted section of following grants continued to persist during 1999-2000 for the reasons shown against each, as under:

(Rs in crore)

| Grant No. Minor Head | 1997-98 | 1998-99 | 1999-2000 | Reasons for Unspent amount given in Appropriation Accounts |
|---|---|---|---|---|
| **18- Defence Services - Army** | | | | |
| 104- Pay & Allowances of Civilians | 14.65 | 36.06 | 22.30 | Non-implementation of ACP scheme |
| 800- Other Expenditure | 7.80 | 3.33 | 16.59 | Non-materialisation of certain contracts, reduction of rates of bulk media by C-DOT |
| **20- Defence Services- Air force** | | | | |
| 110- Stores | 8.89 | 23.88 | 9.87 | Downward revision of exchange rates, slippage in supplies of Stores |
| **21- Defence Ordnance Factories** | | | | |
| 054- Manufacture | 23.64 | 12.31 | 13.86 | Less expenditure on overtime |
| **22- Capital Outlay on Defence Services** | | | | |
| **02- Navy** | | | | |
| 205-Naval Dockyards | 6.25 | 10.91 | 5.39 | Slower progress of works |
| **04- Defence Ordnance Factories** | | | | |
| 052- Machinery and Equipment | 6.31 | 7.92 | 5.98 | Less expenditure against certain projects |

## 8. Persistent excess

During the last two years there were persistent excesses exceeding Rs 5 crore in the following two Minor Heads of grants for the reasons shown against each:

(Rs in crore)

| Grant No. Minor Head Voted | 1998-99 | 1999-2000 | Reason for excess given in Appropriation Accounts |
|---|---|---|---|
| **18- Defence Services – Army** | | | |
| 113- N.C.C. | 15.97 | 10.74 | Excess booking on account of clothing items, receipts of Railway warrants & bills towards the end of the financial year |
| **19- Defence Services - Navy** | | | |
| 101-Pay & Allowances | 36.04 | 13.35 | Higher expenditure on account of Cash bookings at the end of the year |

## 9. Exception made a rule

Ministry of Finance issued instructions at the instance of P.A.C.(Tenth Lok Sabha) vide its recommendations in 60th Report regarding re-appropriation of funds amongst others. As per the extant instructions, reporting of such cases of re-appropriation of funds during the year which has the effect of increasing the budget provision by more than 25 *per cent* or Rs one crore whichever is more, under a sub-head, to Parliament alongwith the last batch of supplementary demands is the rule, whereas issue of any re-appropriation order by the Ministry/Department after presentation of the last batch of supplementary demands, exceeding the above limit requires prior approval of the Secretary/Additional Secretary, Deptt. of Expenditure, is the exception.

However, a test check of Appropriation Accounts, Defence Services disclosed that the exception was used as the rule by the Ministry by resorting to re-appropriation of funds with the approval of Secretary (Expenditure) after the presentation of last batch of supplementary demands to the Parliament, at the end of the financial year 1999-2000 in 21 cases of augmentation of funds by re-appropriation.

## 10. Losses awaiting regularisation/Store losses

### *(a) Losses awaiting regularisation*

Mention was made in paragraph 10 of the Report No.7 of 1998 and Report No.7 of 2000 of the Comptroller and Auditor General of India regarding losses awaiting regularisation for more than one year. Although there was a decreasing trend during the last three years, the percentage of cases settled/amount involved was very low, as indicated below:

**(Rs in crore)**

| Year | No. of cases awaiting regularisation | Cases regularised with reference to previous year (Percentage) | Amount involved in regularisation | Amount regularised with reference to previous year (Percentage) |
|---|---|---|---|---|
| 1997-98 | 1577 | -- | 230.76 | -- |
| 1998-99 | 1498 | 5.01 | 223.62 | 3.09 |
| 1999-2000 | 1392 | 7.08 | 217.16 | 2.89 |

The oldest case awaiting regularisation, relates to the year 1969-70.

Thus, special efforts are required to review these cases for their expeditious settlement.

### *(b) Store losses*

The Store losses due to theft, fraud or gross neglect and due to other causes showed increasing trend during the year 1999-2000 as compared to the previous year as per following details:

**(Rs in crore)**

| Sl. No. | Category of loss | Amount of Stores lost | | Percentage increase over the previous year |
|---|---|---|---|---|
| | | 1998-99 | 1999-2000 | |
| (i) | Loss due to theft, fraud or gross neglect | 24.37 | 159.74 | 555.48 |
| (ii) | Loss due to other causes | 12.77 | 26.22 | 105.32 |
| | **Total** | 37.14 | 185.96 | 400.70 |

The total Store losses during 1999-2000 increased to the extent of 401 *per cent* over the previous year.

Amount of loss due to other causes of Rs 26.22 crore included losses due to Fire Rs 1.14 crore, Deficiency in actual balances Rs 1.08 crore, Deterioration Rs 0.84 crore ,Defective Stores Rs 0.16 crore, Transit losses Rs 4.32 crore and Other causes Rs 18.68 crore.

## 11. Dues on account of Licence Fee and allied charges

Mention was made in paragraph 10 of the Report No.7 of 1999 of Comptroller and Auditor General of India regarding outstanding dues on account of Licence Fee and allied charges due for recovery from Union Ministries, State Governments, private bodies, messes, clubs and individual officers etc. Despite this, a review of outstanding dues as on 30 June 2000 reflects no substantial progress.

**(Rs in crore)**

| Outstanding as on 30 June of the year | Amount due | Percentage increase over the year 1996 |
|---|---|---|
| 1996 | 9.62 | -- |
| 1997 | 10.63 | 10.50 |
| 1998 | 16.41 | 70.58 |
| 1999 | 20.56 | 113.72 |
| 2000 | 17.33 | 80.15 |

There is, therefore, a need to make special efforts to realise the large outstanding dues.

## 12. Non-settlement of Audit Objections

The number of audit objections raised by Internal Audit and Statutory Audit up to 31 March 2000 but outstanding as on 30 June 2000 was 78092. Of these, 8782 objections raised by Statutory Audit, were outstanding as per details appended below:

***STATUTORY AUDIT OBJECTIONS RAISED UP TO MARCH 2000 AND OUTSTANDING AS ON 30.6.2000***

**(Numbers)**

| Sl. No. | NAME of CsDA | YEARS | | | | | | | | | | | | | | | | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 77-78 | 78-79 | 79-80 | 80-81 | 81-82 | 82-83 | 83-84 | 84-85 | 85-86 | 86-87 | 87-88 | 88-89 | 89-90 | 90-91 | 91-92 | 92-93 | 93-94 | 94-95 | 95-96 | 96-97 | 97-98 | 98-99 | 99-2000 | |
| 1. | CDA (SC) Pune | | | | | | | | | | 01 | 06 | 03 | 10 | 09 | 21 | 22 | 15 | 27 | 71 | 57 | 87 | 186 | 262 | 777 |
| 2. | CDA Chennai | | | | | | | | | | | | | | 01 | 09 | 01 | 05 | 10 | 24 | 31 | 40 | 61 | 86 | 268 |
| 3. | CDA(A) Meerut | | | | | | | 01 | 14 | 10 | 15 | 23 | 21 | 42 | 20 | 14 | 16 | 39 | 32 | 67 | 196 | 96 | 289 | 254 | 1149 |
| 4. | CDA(CC) Lucknow | | | | | | | 01 | -- | 04 | 13 | 01 | 07 | 05 | 12 | 12 | 19 | 11 | 12 | 25 | 20 | 21 | 19 | 53 | 235 |
| 5. | CDA(NC) Jammu | 01 | 01 | 01 | 02 | 03 | 02 | 04 | 01 | -- | 08 | 01 | 15 | 32 | 28 | 39 | 16 | 39 | 22 | 47 | 94 | 53 | 62 | 88 | 559 |
| 6. | CDA(WC) Chandigarh | | | | | 04 | 08 | 07 | 16 | 14 | 10 | 14 | 40 | 33 | 45 | 44 | 34 | 106 | 179 | 127 | 212 | 224 | 215 | 229 | 1561 |
| 7. | CDA Patna | | | | | | | | 02 | 01 | 04 | 02 | 01 | -- | 08 | 10 | 02 | 22 | 10 | 19 | 12 | 06 | 67 | 76 | 242 |
| 8. | CDA Guwahati | | | | | | | | | | | | | | | 01 | -- | 01 | 03 | 03 | 01 | 03 | 38 | 59 | 109 |
| 9. | CDA(R&D) N.Delhi | | | | | | | | | | 01 | 03 | -- | -- | 02 | 03 | 07 | 04 | 06 | 05 | 20 | 36 | 06 | 21 | 114 |
| 10. | CDA(R&D) Bangalore | | | | | | | | | | | | | | | | 01 | -- | 01 | 02 | 07 | 09 | 14 | 17 | 51 |
| 11. | CDA(R&D) Hyderabad | | | | | | | | | | | | | | | | | | | | 02 | 09 | 07 | 13 | 31 |
| 12. | CDA(HQ) N.Delhi | | | | | | | | | 01 | 01 | 03 | -- | 13 | 07 | 09 | 43 | 14 | 06 | 08 | 30 | 14 | 147 | 70 | 366 |
| 13. | CDA(O) Pune | | | | | | | | | | | | | | | | | | | | 07 | 07 | 12 | 43 | 69 |
| 14. | CDA Bangalore | | | | | | | | | | | | | | | | 02 | 01 | 02 | 08 | 08 | 12 | 25 | 81 | 139 |
| 15. | CDA Jabalpur | | | | | 01 | -- | -- | 01 | 02 | 04 | 02 | 02 | 01 | 01 | 09 | 05 | -- | 02 | 12 | 09 | 11 | 20 | 88 | 170 |
| 16. | CDA Secunderabad | | | | | | | | | | | 01 | 21 | 03 | -- | 06 | 07 | 23 | 05 | -- | 17 | 67 | 74 | -- | 224 |
| | **Total : Army** | **01** | **01** | **01** | **02** | **08** | **10** | **13** | **34** | **32** | **57** | **56** | **110** | **139** | **133** | **177** | **175** | **280** | **317** | **418** | **723** | **695** | **1242** | **1440** | **6064** |
| 17. | CDA(AF) N. Delhi | | | | | | | | | | | | | | | | | 02 | -- | 01 | 02 | 18 | 16 | 04 | 43 |
| 18. | CDA(AF) Dehradun | | | | | | | | | | | | | 01 | -- | 07 | 22 | 10 | 27 | 30 | 75 | 101 | 107 | 175 | 555 |
| 19. | CDA(HAL) Bangalore | | | | | | | | | | | | | | | | 02 | -- | 01 | 03 | 04 | 06 | 14 | 09 | 39 |
| | **Total : Air Force** | | | | | | | | | | | | | **01** | -- | **07** | **24** | **12** | **28** | **34** | **81** | **125** | **137** | **188** | **637** |
| 20. | CDA(Navy) Bombay | | | | | | | | | | | | | | | | 04 | 07 | 47 | 62 | 234 | 197 | 292 | 314 | 1157 |
| | **Total : Navy** | | | | | | | | | | | | | | | | **04** | **07** | **47** | **62** | **234** | **197** | **292** | **314** | **1157** |
| 21. | PCA(Fys.) Calcutta | | | | | | | | | | | | | | | 02 | 02 | 07 | 18 | 35 | 111 | 109 | 216 | 424 | 924 |
| | **Total: Ord. Factories** | | | | | | | | | | | | | | | **02** | **02** | **07** | **18** | **35** | **111** | **109** | **216** | **424** | **924** |
| | **Grand total: Army, Navy, AirForce, Ord. Factories** | **01** | **01** | **01** | **02** | **08** | **10** | **13** | **34** | **32** | **57** | **56** | **110** | **140** | **133** | **186** | **205** | **306** | **410** | **549** | **1149** | **1126** | **1887** | **2366** | **8782** |

The oldest objection relates to the year 1977-78.

Action for early settlement of these cases needs to be taken.

## 13. Surrender of Savings

Ministry of Finance, Deptt. Of Expenditure vide their OM F.No.12(1)/E(Coord)/95 dated 17 October 1995 issued instructions at the instance of PAC on their recommendations contained in para 1.37 of 88th Report (Tenth Lok Sabha) regarding Surrender of Savings. As per extant orders, the savings in a grant or appropriation are required to be surrendered as soon as these are foreseen without waiting till the end of the year. Further, Savings should also not be held in reserve for possible future excesses as per Financial Regulations.

A review of surrender orders issued by the Ministry revealed that the savings were continued to be surrendered only at the end of the financial year in previous years. In the accounts of Defence Services for the year 1999-2000, the final net savings amounting to Rs 1640.77 crore, after taking into account the excess expenditure of Rs 69 thousand (Charged) occurred in the grant of Defence Ordnance Factories, was registered and theiragainst an amount of Rs 1148.68 crore was surrendered at the end of the financial year, as per details appended below:

**(Rs in crore)**

| Grant No. | Amount Surrendered |
|---|---|
| 18-Defence Services- Army | --- |
| 19-Defence Services- Navy | 113.17 |
| 20-Defence Services- Airforce | 122.52 |
| 21-Defence Ordnance Factories | 903.82 |
| 22-Capital outlay on Defence Services | 9.17 |
| **Total** | **1148.68** |

It is evident that out of total net savings, the total amount surrendered was only 70 *per cent.* Since Ministry of Finance accepted surrender on the last day of the financial year, the very purpose of surrendering the funds for utilisation by its re-allocation to any other sector by the Ministry of Finance was forfeited.

# CHAPTER II : MINISTRY OF DEFENCE

## 14. Non-utilisation of imported radars

**Despite assurance given in 1995 to carry out trial evaluation of radars, Ministry failed to arrange the same and consequently two radars imported in August 1991 at a cost of Rs 4.56 crore were lying unutilised since their receipt.**

Mention was made in paragraph 17 of Report No.8 of 1995 of the Comptroller and Auditor General of India, Union Government- Defence Services (Army and Ordnance Factories) about import of two radars at a cost of Rs 4.56 crore and their non-utilisation since receipt in August 1991. The Ministry of Defence (Ministry) in their draft Action Taken Note of February 1995 stated that trials would be held as soon as foreign specialists arrive.

**Radars were released to a unit but it did not collect them**

**Trained personnel were not available with COD and other units**

**Ministry signed a memorandum with foreign country for technical examination of radars**

Further examination of the case revealed that these radars were released to a unit on loan for trials. The unit, however, pointed out in November 1995 that the radars were not issued to them because Central Ordnance Depot Agra did not provide qualified personnel for handing over of radars, during range test one radar was found in repairable condition and serviceability of seven equipments of both the radars could not be checked due to non-availability of qualified personnel. The user unit, therefore, requested Central Armoured Fighting Vehicles Depot, Kirkee to approach Army HQ/Central Ordnance Depot to provide qualified personnel for checking the serviceability of the equipments of radars and for handing over of radars. Central Ordnance Depot in December 1995 informed Army HQ that trained personnel were not available either with them or with any other unit and one of the radars lying in repairable condition could not be repaired. Depot also requested Army HQ to make available trained personnel so that receiving unit might be conversant with functioning of radar. After a lapse of about three years, Ministry in December 1998 signed a memorandum with firm 'A' for technical examination of the radars by deputing specialists in December 1998 itself. However, the specialists had not examined the radars and they were still lying unutilised.

Thus, despite being pointed out by audit in 1995, Ministry failed to arrange trial evaluation of imported radars costing Rs 4.56 crore and their suitability and serviceability was yet to be established. The radars were lying in Central Armoured Fighting Vehicles Depot without any use as of February 2000 since their receipt in August 1991.

The matter was referred to the Ministry in June 2000; their reply was awaited as of August 2000.

## 15. Procurement of an incomplete equipment

**Due to failure of Ministry in procuring Image Intensifier Tubes, 500 Night Vision Passive Devices alongwith modification kits valued at Rs 3 crore were lying in stock for the last six years.**

Ministry of Defence procured 500 sets of Periscope Armoured Vehicle Night Vision Devices alongwith modification kits without ensuring the availability of Image Intensifier Tubes (tubes) to be fitted therein. The entire quantity of 500 sets of devices and modification kits procured at Rs 3 crore were lying in stock of Central Ordnance Depot Agra for the last six years for want of tubes. Meanwhile, the warranty period of 12 months also lapsed.

**Ministry ordered 500 sets of night vision devices and modification kits**

Ministry placed an order on a firm in February 1988 for supply of 500 sets of Periscope Night Vision Device and modification kits to be used in a Tank at a total price of Rs 3.16 crore excluding the cost of Image Intensifier Tubes which were to be supplied by the Department of Defence Supplies free of cost for fitting in devices. The supply was to commence by May 1988 or earlier at 30 numbers per month and was to be completed by October 1989. The firm supplied part equipment viz. modification kits between February 1989 and November 1989.

**Ministry allowed firm to despatch devices without tubes**

In December 1993, after four years of receipt of modification kits, the Ministry issued an amendment to the order allowing the firm to despatch the devices without fitment of tubes by reducing the total price to Rs 3 crore. Accordingly, the firm supplied the devices without fitment of tubes during February/March 1994. Since then these 500 sets of devices and modification kits were lying in stock in incomplete status. The warranty period of 12 months also lapsed in the year 1995 itself.

Depot stated in June 1999 that the case was referred to Army HQ for their comments. However, the reply of Army HQ was awaited as of December 1999.

Thus, the failure of the Ministry to arrange procurement of tubes led to non-utilisation of devices procured at a total price of Rs 3 crore for the last six years. Besides, the warranty period also lapsed during stocking of stores in the Depot.

The matter was referred to the Ministry in July 2000; their reply was awaited as of October 2000.

## 16. Cancellation of unauthorised works at the instance of audit

**Cancellation of unauthorised works and revision of estimates at the instance of audit resulted in savings of Rs 1.52 crore**

Audit observations prevented unauthorised expenditure to the tune of Rs 1.52 crore in the following cases, by cancellation of irregular sanctions or reduction in scope of work.

### Case I

**Army authorities cancelled work services costing Rs 35 lakh on being pointed out in Audit**

A Corps HQ sanctioned in August 1995 the provision of street lights on central verge of widened civil road at a cost of Rs 35 lakh. The sanction catered for provision of street lights on civil road from defence fund which was irregular. After this was pointed out in Audit in June 1996, the Corps HQ cancelled the above sanction in August 1997 resulting in saving of Rs 35 lakh.

### Case II

**Cancellation of sanction of mechanical laundry resulted in saving of Rs 14.20 lakh**

A Sub Area HQ accorded Admin approval in October 1997 for provision of mechanical laundry for 200 men at a training Command Camp at a station at an estimated cost of Rs 14.20 lakh. Since work was not authorised as per Scales of Accommodation 1983 it was pointed out in Audit that sanction of Government was needed for regularisation. Sub Area HQ, cancelled the work in December 1997 since the work had not commenced which has resulted in saving of Rs 14.20 lakh.

### Case III

**Cancellation of unauthorised provision of institute resulted in saving of Rs 2.30 lakh**

A Sub Area HQ sanctioned in June 1994 the work for provision of Other Ranks Institute for a transit Camp at an estimated cost of Rs 2.30 lakh to cater for strength of 17 men. Audit pointed out that in accordance with Scales of Accommodation 1983 no institute should be provided, if the strength of the unit was less than 40 men and the sanction issued was not in order. Sub Area HQ cancelled the sanction in September 1996 resulting in saving of Rs 2.30 lakh.

### Case IV

**Cancellation of unauthorised accommodation for special forces resulted in saving of Rs 9.98 lakh**

A Sub Area HQ accorded sanction in March 1998 for provision of Cook House and one toilet at a station at an estimated cost of Rs 9.98 lakh. The work was sanctioned in Permanent Specification for an Interim Location Plan unit. Audit pointed out that Key Location Plan of the special forces training though approved by Army HQ in July 1995 was yet to be approved by the Ministry of Defence and therefore the construction of accommodation for special forces training on permanent specifications was not in order. Sub Area HQ cancelled the work in May 1998 resulting in saving of Rs 9.98 lakh.

Case V

**Cancellation of work for transformer for Army school resulted in saving of Rs 4.82 lakh**

A Corps HQ accorded sanction in September 1998 for provision of transformer to Army School Complex Area at a station at an estimated cost of Rs 4.82 lakh. Audit pointed out that sanctioning the work for Army School not approved by Government out of defence funds was not in order. Corps HQ agreed with Audit view and cancelled the work in June 1999 resulting in saving of Rs 4.82 lakh.

Case VI

Ministry of Defence sanctioned the work for location/functioning of a Squadron in August 1996 at an approximate cost of Rs 12.31 crore. The sanction catered for married accommodation/ single accommodation for 13 officers and 147 airmen/ Non-combatants. While working out the authorised plinth area for married accommodation 12½ *per cent* excess was catered for 1½ brick wall construction. Audit pointed out that a similar work for provision of married accommodation for Officers, Airmen and Non-Combatant Enrolled sanctioned by Ministry in March 1999 for another similar Squadron at the same station revealed that no extra plinth area for 1½ brick wall had been catered for. Therefore, the provision of extra plinth area of 12½ *per cent* and 1½ brick wall for the single and married accommodation for the Squadron was not in order and the estimates required revision. Commander Works Engineer agreed with Audit contention in June 1998 and initiated reduction statement for Rs 67.70 lakh.

**Revision of estimates resulted in saving of Rs 67.70 lakh**

Case VII

**Cancellation of unauthorized provision of air conditioner resulted in saving of Rs 3.44 lakh**

An Air Force Station accorded sanction in November 1995 for air-conditioning of station briefing hall in Air Traffic Control Buildings at an estimated cost of Rs 3.44 lakh under para 53 of the Scales of Accommodation 1983. But para 53.5(c)(iii) stipulates that air-conditioning can be provided only to Air Traffic Control whereas air-conditioning was for briefing halls/conference halls. On being pointed out by Audit the Air Force Station cancelled the subject work in June 2000 resulting in saving of Rs 3.44 lakh.

Case VIII

**Cancellation of unauthorised work at the instance of audit saved Rs 8.16 lakh**

Commandant of an Air Force Academy sanctioned in August 1999 construction /extension of CSD Canteen building at a cost of Rs 8.16 lakh. As CSD Canteen is a regimental activity, sanctioning of the work was objected to in Audit. The sanction was cancelled at the instance of Audit, resulting in a saving of Rs 8.16 lakh.

**Case IX**

**Suggestion in Audit led to cancellation of works services costing Rs 6.65 lakh**

Based on the recommendations of a Board of Officers to replace existing fluorescent tube lights with HPSV[1] lamps for providing better illumination on the roads, an Infantry Division sanctioned works services in October 1999 for replacement of 131 tube lights with HPSV lamps at a cost of Rs 6.65 lakh. When Audit enquired into the necessity for replacement of the entire 131 fluorescent tube lights rather than providing additional lights, Infantry Division cancelled the sanction in April 2000 resulting in a saving of Rs 6.65 lakh.

Ministry accepted the facts in December 2000.

## 17. Unauthorised expenditure on operation of unsanctioned posts

**Operation of three local posts in the Military wing of the Mission in Paris without the sanction of the competent authority resulted in unauthorised expenditure of Rs 1.25 crore.**

As per the General Financial Rules, no authority can incur expenditure or enter into any liability involving expenditure from Government account unless such expenditure has been sanctioned by general or special orders of Government or by any authority to which power has been delegated on its behalf. In case of salary, no expenditure can be incurred without specific sanction, creating the post, by competent authority.

**Ministry revived only three India based posts in the Military wing**

Ministry revived the Military wing in the Embassy of India, Paris[2] in March 1995, which was earlier closed with effect from 01 June 1993. While reviving the Military wing, the Ministry sanctioned continuance of only three India based posts, viz., one each of Brigadier as Military Attache, Junior Commissioned Officer as clerk and Havildar as Personal Assistant. One each of India based posts of Havildar Clerk, Orderly and Batman, which were in existence prior to closure of the Military wing in June 1993, were not revived in the sanction issued in March 1995.

**Mission at Paris operated three local posts without sanction**

The powers to sanction regular posts of local employees in the Missions abroad rests with Government, and the Missions have not been delegated powers to create and operate such posts. Despite this, the Mission at Paris operated three local posts in the Military wing since 01 June 1993, consisting of two Junior Translators and one Messenger, without sanction of the Ministry to their creation.

[1] High Pressure Sodium Vapour Lights
[2] Mission

**Expenditure of Rs 1.25 crore on three local employees is unauthorised**

The Mission had spent FFr 1.942 million equivalent to Rs 1.25 crore[3] on pay and allowances and social service contributions of the three employees during June 1993 to October 2000, which is entirely unauthorised. The unauthorised employment against three local posts was continuing as of November 2000.

**Ministry's internal control was lax**

While the Mission acted in disregard of the limitations on their delegated powers, the Ministry also failed to notice the infringement of the limit on delegated powers of the Mission and continued to endorse the accounts of the Mission, which included expenditure on local posts. It is noteworthy that the budget proposals of the Mission specifically indicated provisions for local posts during all the years in question.

**Ministry's contention is not tenable**

Ministry sought to justify in September 2000 the unauthorised action by the Mission on the specious technical ground that the Ministry's orders holding the India-based posts in the Mission in abeyance were silent about the local posts. Ministry's attempt to contest the audit observation by contending that the local posts were never abolished is not tenable since with the closure of the Military wing, the question of operation of any posts – local or India-based did not arise.

**The matter warrants fixing of responsibility and measures to strengthen the internal control**

It is recommended that Ministry should take immediate remedial measures for discontinuance of the unauthorised appointment of local employees and investigate the matter to fix responsibility on the authority which acted beyond the delegated powers, leading to such heavy unauthorised expenditure. Ministry should also introduce measures to strengthen the internal control system in relation to their approval of the budget estimates requested by their field units, particularly by the Missions abroad.

## 18. Injudicious construction of Officers quarters at Naval Air Station Arkonam

**Sanction of Officers married quarters based on a model PE resulted in construction of excess quarters leading to re-appropriation of some quarters for unauthorized purposes and some other remaining vacant.**

**In the absence of regular PE, Board based its recommendations on a model PE**

A Board of Officers assembled in September 1984 assessed the works services required for Naval Air Station Arkonam based on a model PE* of a existing similar unit, as the PE of the Naval Air Station was not sanctioned by the Government at that stage. Based on the recommendations of the Board, Ministry sanctioned in July 1987 construction of 145 quarters for married personnel including 81 for officers of the rank of Lieutenant and below.

[3] at the offical rate of exchange of September 2000 of Re 1 = FFr 0.156

* Peace Establishment

Ministry priorotised in October 1987 the sanctioned items of work to be constructed on time bound basis, in which only 50 *per cent* of the married accommodation were included.

**Project Management Board decided to construct 100 *per cent* married quarters to avoid cost escalation**

**Excess construction and less posting of officers resulted in very low utilization of quarters**

The Project Management Board in a meeting chaired by Additional Secretary (Defence) held in February 1988, however, decided construction of married quarters at 100 *per cent* to avoid possible cost escalation in future. Government sanctioned between March 1991 and February 1992, the manpower for Naval Air Station comprising of 150 officers. According to the sanction, 58 quarters were required to be constructed for married officers of the rank of Lieutenants and below. However, by then Chief Engineer Madras Zone had constructed 72 quarters for Lieutenants and below. Thus 14 quarters were constructed in excess at a cost of Rs 30.78 lakh. Further, only 54 officers of the rank of Lieutenant and below were posted to the Naval Air Station as of February 1999 and only 49 as of October 2000.

Audit scrutiny of the occupation of above 72 quarters showed that as of October 2000 only 51 *per cent* quarters were occupied by entitled officers and five were lying vacant. Others had been over the years, either used for unauthorized purposes like transit accommodation, Naval Wives Welfare Association, Play school, ward rooms for officers mess etc. or remained vacant.

The matter was referred to the Ministry in August 2000; their reply was awaited as of October 2000.

## 19. Infructuous expenditure on procurement of entertainment films

**Lack of coordination between two sections of Ministry of Defence coupled with failure to follow the recommendations of Expert Committee resulted in unnecessary procurement of entertainment films worth Rs 33.08 lakh.**

**Expert Committee recommended disbandment of mobile cinemas**

Mobile Cinema Sections had been functioning in the Army as part of the Ordnance establishments for providing entertainment to troops deployed in operational/forward areas under field conditions. With the advent of new technology in the form of Television/VCRs, an Expert Committee recommended disbandment of mobile cinema section in 1992.

**Army HQ in January 1994 put an embargo on purchase of entertainment films**

Army Headquarters in January 1994 circulated the minutes of meeting of the Army Standing Establishment Committee held between November 1993 and January 1994 to the Ministry of Defence (Finance) amongst others. It recommended reduction of nine personnel from Peace Establishment of Central Ordnance Depot Bombay, which was the stocking Depot for entertainment films and discontinuance of procurement of entertainment films during the gestation period. The Steering Committee on implementation of the Expert Committee recommendations also directed in March 1994 disbandment of mobile cinema sections.

**Ministry disbanded 28 MCS between March 1994 and September 1994**

Ministry accorded sanction for disbandment of seven sections in March 1994. Subsequently in September 1994 Ministry accorded one more sanction for disbandment of 21 sections by May 1995.

**Ignoring all directions Board of September 1994 recommended purchase of entertainment films**

Notwithstanding the above, a Board of Officers comprising Assistant Financial Advisor, Ministry of Defence (Finance), Army HQ and Central Ordnance Depot Bombay assembled at the Depot on 08 September 1994 and selected entertainment films for screening in mobile cinema sections which were under orders of disbandment. However, the Board in their deliberation nowhere discussed the issue of disbandment.

**Ministry accorded sanction in January 1995 for procurement of films at Rs 35.77 lakh**

Based on the recommendations of this Board, Ministry in January 1995 as amended in December 1995 accorded sanction for procurement of entertainment films at Rs 35.77 lakh in total disregard of ongoing process of disbandment of mobile cinema sections. Central Ordnance Depot Bombay placed two supply orders in March 1995 on Cine Films distributors, Bombay for 16 films, three copies each. These films were received in March 1995. Audit scrutiny of log books of films at Central Ordnance Depot Bombay revealed that 29 copies of 15 films worth Rs 20.15 lakh have never been screened.

Thus, lack of coordination between two sections of Ministry i.e. one which decided disbandment of mobile cinema sections and another which sanctioned procurement of films led to unnecessary procurement of entertainment films worth Rs 33.08 lakh. The fact that films procured in the form of raw material are used immediately and never carried forward in the next financial year was also known to the Ministry. The disposal action for entertainment films was yet to be taken by Depot as of June 1999.

The matter was referred to the Ministry in August 2000, their reply was awaited as of October 2000.

## 20. Inadequate follow-up on deficient supplies leading to avoidable loss

**Laxity of Military Attache and Army HQ in timely processing of discrepancy reports for defective supply of Aerial Target Aircraft Drone by foreign supplier resulted in loss of Rs 16.34 lakh.**

**Ministry concluded contract in April 1993 with a foreign firm for Aerial Target Drone**

**Discrepancy Reports for deficient supplies were forwarded in October 1994/ July 1995 by consignee to Military Attache/ AHQ**

**Military Attache forwarded these DRs to firm only in May 1998**

Ministry of Defence entered into a contract in April 1993 with a foreign firm for supply of "Aerial Target Aircraft Drone" along with spares and accessories. Commandant, Central Ordnance Depot, Agra noticed deficiencies in two consignments and addressed Discrepancy Reports to Military Attache on 26 October 1994 in respect of the first consignment and on 31 July 1995 in respect of the second consignment. These Discrepancy Reports were addressed to the Military Attache in the Embassy of India, abroad, Ministry of External Affairs and the Army HQ. The value of deficiency was $10,874.69 in the first consignment and $40,861.66 in the second consignment. However, the Military Attache forwarded copies of the two discrepancy reports to the supplier asking for free replacements or to rectify the defects in-situ to make good the deficiency only in May 1998. This was followed up with a reminder faxed on 27 July 1998. In response, the firm in their fax dated 03 August 1998, offered to repair the defects and replace material in disrepair and asked the Military Attache to advise details. In reply, the two discrepancy reports containing details of deficiencies/defects were again sent to the Supplier on 25 September 1998. The Supplier, in their response dated 02 November 1998, raised the following issues:

**Supplier rejected claims due to expiry of warranty and other reasons**

- 1994/95 discrepancy reports exceeded warranty time since the Government of India did not bring the said discrepancies to their notice until 1998.
- Receiving reports indicated that there was shipping damage. Receiving reports also mandated an insurance claim for damaged crates, which was not accomplished.

This situation could have been averted had the Army HQ taken up the discrepancy reports with the supplier or had the Military Attache not waited till May 1998 to take up the matter with the supplier and had acted upon the repeated reminders on the matter from Central Ordnance Depot.

**Army had to resort to cannibalization to utilize the item**

These lapses on the part of the Army HQ and the Military Attache's office resulted in a loss of $51,736.35 (Rs 16.34 lakh)[4]; being the cost of items deficient or in disrepair to the Government of India, as the supplier has rejected claims on grounds of expiry of warranty period and other reasons. Besides, in the absence of these items, the army had to resort to cannibalization to keep the received items in a state of use.

[4] One US Dollar =Rs 31.59

The matter was referred to the Ministry in October 2000; their reply was awaited as of January 2001.

## 21. Response of the ministries/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 Offices 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 was brought to their personal notice that since the issues were likely to be included in the Audit Report 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 Report of the Comptroller and Auditor General of India for the year ended March 2000 : Union Government (Defence Services), Army and Ordnance Factories : No. 7 of 2001 were forwarded to the Secretary, Ministry of Defence between June 2000 and November 2000 through Demi Official letters.

The Secretary of the Ministry of Defence did not send replies to 25 Draft Paragraphs out of 45 Paragraphs in compliance to above instructions of the Ministry of Finance issued at the instance of the Public Accounts Committee. Thus, the response of the Secretary of the Ministry could not be included in them.

| *Ministry/ Department* | *Total No. of Paragraphs on Ministry/ Department included in Audit Report* | *No. of Paragraphs on which reply not received from Secretary* | *Paragraph Number* |
|---|---|---|---|
| **Ministry of Defence** | 45 | **25 (excluding Paragraph 1 to 13 of Chapter I and Paragraph No.21)** | **14, 15, 18, 19, 20, 22, 23, 24, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 43,44 and 45** |

## 22. Follow up on Audit Reports

**Despite repeated instructions/recommendations of the Public Accounts Committee, the Ministry did not submit remedial Action Taken Notes on 184 Audit Paragraphs.**

**Action Taken Notes are to be submitted within four months of placing the Report on the Table**

With a view to ensuring enforcement of accountability of the executive in respect of all issues dealt with in various Audit Reports, the Public Accounts Committee desired that ATNs@ 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 4 months from the laying of the Reports in Parliament. Meetings were also held in August 1998, December 1998 and September 1999 under the Chairmanship of Secretary (Expenditure) to ensure timely submission of ATNs and to review the position of pending ATNs. Ministry of Finance (Department of Expenditure) in July 2000 reiterated instructions issued by Public Accounts Committee to take urgent steps to finalise all the pending ATNs even of earlier Reports to ensure that all vetted ATNs are sent to Monitoring Cell well before the deadline prescribed by the Committee.

**Ministry failed to submit Action Taken Notes on 184 paragraphs**

Review of outstanding Action Taken Notes relating to Army as of 16 November 2000 revealed that the Ministry failed to submit ATNs in respect of 184 Paragraphs included in Audit Reports up to and for the year ended March 1999 (No.7 of 2000) as per Annexure-I. Of these, even first round of ATNs for 37 (one paragraph pertained to Report No.8 of 1992) paragraphs were not received for vetting and 36 paragraphs pertained to the Audit Reports up to and for the year ended March 1993 (No.8 of 1994).

The matter was referred to Ministry in September 2000; their reply was awaited as of 16 November 2000.

@ Action Taken Notes

# CHAPTER III : ARMY

## 23. Loss due to cavitation/cracks in High Explosive filling of shells

**Cavitation/cracks in filling of High explosive ammunition led to downgradation of ammunition valued at Rs 2.76 crore as unserviceable.**

Ammunition for 105 mm Indian Field Gun valued at Rs 2.76 crore was downgraded as unserviceable within its shelf life due to manufacturing defects and non-observance of Inspection standards. No responsibility has been fixed. The cases are as follows:

### Case I

**8124 rounds of ammunition segregated due to accident**

High explosive shells manufactured by an Ordnance Factory during 1982 and 1984 numbering 8124 rounds were segregated due to accidents. The accidents occurred due to defect of cavitation in the shell filling and subsequently downgraded as unserviceable in 1996 within shelf life i.e. 18 years. These unserviceable shells are held at Central Ordnance Depot Jabalpur.

**OFB advised OF to take X-ray of entire quantity**

**OF could not carry out X-ray because X-ray plant was condemned**

The downgrading of shells was discussed by the Ministry of Defence, Director General of Quality Assurance and Ordnance Factory Board during 1996-98 so as to render them serviceable. X-ray of eight samples each out of nine lots at an Ordnance Factory in November 1996 revealed nearly 80 *per cent* of the shells had filling defects. In pursuance of the above, Ordnance Factory Board advised the Ordnance Factory to X-ray the entire quantity by first quarter of 1998-99 to salvage shells to the extent possible. The Ordnance Factory could not carry out X-ray of the shells as the X-ray machine held by them had been condemned.

As of January 2000, 8124 rounds valuing Rs 2.45 crore were held in repairable condition.

### Case II

**Army HQ attributed the accident to cracks in filling of shells**

In a similar case firing with this ammunition in June 1997 resulted in damage to gun and injuries to operating staff. The Ammunition Depot had received 2000 shells Ex-Ordnance Factory manufacture of 1988 valued at Rs 69 lakh. Army HQ attributed the accident to cracks in high explosive filling of shells valuing Rs 30.94 lakhs. These shells were therefore sentenced as unserviceable within shelf life but the fuze associated with the shell was pronounced as serviceable. The Controller of Quality Assurance (Weapons) in their final Coordinated Investigation Report of September 1998 concluded

**QA(Weapon) also attributed the accident to cracks in filling**

that the accident was attributable to the cracks in filling of shells and recommended that this lot should not be used. The unserviceable ammunition was lying at Field Ammunition Depot.

The matter was referred to Ministry in July 2000; their reply was awaited as of October 2000.

## 24. Unauthorised use of defence land by a club at Mumbai

**The United Services Club, Mumbai, an autonomous club is functioning as a profitable, commercial venture on A-1 Defence land without government sanction. The Club's location coupled with its membership policy poses a security hazard.**

**The United Services Club originally conceived at Colaba in a bungalow**

**Club had encroached upon 53.50 acres land and 21 buildings**

Army established United Services club in 1928 in a bungalow in Mumbai temporarily leased out to Quartermaster General at Rupee one per month plus property tax. The number of buildings occupied by the club rose to 14 as of August 1961 and to 22 including a squash court as of May 1988. In addition the club had occupied 53.50 acres of land for Golf Course. No sanction for allotment of buildings and land for Golf Course exists except one bungalow. All the buildings and Golf Course are on A-1 land which is supposed to be in active use. Membership of the club is open to Defence Officers, Defence Pensioners and Civilians.

**Area HQ turned down leasing of land to club on security grounds**

Ministry had ex-post-facto regularized in August 1961 rent for buildings used by club at Rs 118 per month up to March 1961 and at Rs 516 per month with effect from April 1961. The club had submitted an application for lease of land in December 1974 which was turned down by Maharashtra and Gujarat Area HQ Mumbai in April 1981 on security grounds.

**DEO estimated the annual rental of land as Rs 2.73 crore**

**Against above the Club was paying Rs 0.36 lakh per annum**

In 1998 the Defence Estates authorities had estimated the cost of 16939 square metre open area occupied by the Club as Rs 54.78 crore; and the annual rent payable as Rs 2.73 crore. As against this, the Club is paying a sum of Rs 0.36 lakh per annum, based on the rent fixed by a Board of Officers in July 1989. While the rent of buildings and open area was being recovered, no rent for land used unauthorisedly as Golf Course was being recovered. Interestingly, the club hires out its premises for private functions at the rate of Rs 0.50 lakh for 4 hours for lawns, lounges and Golfers hut. Charges for lighting, decorations, band, etc. are also prescribed.

Thus, the Club occupies and commercially exploits prime land earmarked for active use of the defence forces without appropriate government sanction and at a nominal rent.

The matter was referred to the Ministry in September 2000; their reply was awaited as of October 2000.

## 25. Misuse of delegated powers in special repairs to buildings and diversion of staff for use by a private college

**Army HQ and lower formation Headquarters misusing their delegated powers, extended undue benefits to a private society by way of making defence buildings habitable at a cost of Rs 60 lakh and deputing Army Officers and other personnel for setting up of a dental college.**

**Cabinet approved leasing of 9.2 acres of defence land to AWES for running a private Dental College at Re one per annum**

In May 2000 Cabinet approved a proposal of the Ministry of Defence for lease of 9.20 acres of defence land together with buildings on it at Secunderabad Cantonment to the Army Welfare Education Society (a private society) for establishment of the Army College of Dental Sciences. The aim was to augment the vocational and Technical Training facilities for the children of Army personnel including widows and ex-servicemen. The proposal *inter-alia* provided for a notional rent of Rupee one per annum for a period of three years out of the total lease period of 30 years as against a commercial rent of Rs 52.10 lakh per year as assessed by the Director General Defence Estates. The college was to be shifted to regular premises on land allotted to the society by the Government of Andhra Pradesh after a period of three years. The lease of 30 years was permitted in order to meet the stipulation of the Dental Council of India that a Dental College must possess a minimum of 30 years lease hold in case it was to be set up on leased land. The Cabinet approval assumed, therefore, that notwithstanding the period of lease actually approved, the land would be vacated by the society after three years as stated in the proposal approved by it.

**Rs 60 lakh was spent on special repairs to 13 buildings on above land**

The college is presently located in 16 buildings together with roads and external services on 9.2 acres of land under the control of Andhra Sub-Area under Southern Command. Works services amounting to Rs 60 lakh were contracted in January 1998 based on sanction accorded separately by Headquarters Southern Command and Andhra Sub-Area for special repairs to 13 of these buildings, roads and external services on the pretext that these were to be made habitable and serviceable for further allotment to units in the station. Nine other buildings used as accommodation for Junior Commissioned Officers and Other Ranks were also handed over to the society under the directions of Station Headquarters Secunderabad. No proper re-appropriation order, however, were available even though the buildings were taken over by the college.

**Army personnel were diverted for setting up the college**

Army personnel including officers (Officers-2, JCOs-3 & Other Ranks-6) were deployed on work related to the setting up of the college by diverting them from existing posts. The cost of these personnel amounted to Rs 17.75 lakh every year.

Upon the matter being brought to its notice, the Ministry of Defence, stated that special repairs to the building were carried out to prevent deterioration, however, this does not adequately address the issue raised by Audit about the propriety of sanctioning the special repairs on the grounds of further allotment to the units in the station even though the intention was to hand over these buildings to the society for use by the college. The Ministry's reply also did not address the issue of deployment of officers and other personnel to perform their duties in connection with the college by diversion from their stated regular posts.

Delegated powers were exercised with the sole purpose of extending to the Society undue benefit over and above what was projected and approved by Cabinet.

## 26. Hiring of buildings by Defence Estates Officer from an unauthorised party

**Successive Defence Estates Officers, Chennai have been hiring a building on lease since 1975 from an unauthorised party, without checking the actual ownership of the building. Later it turned out that the building along-with surrounding 4.25 acres of land belongs to Defence itself and has been on lease to another party from 1931.**

An Area HQ and the Ministry had been sanctioning hiring of a building at monthly rental ranging from Rs 1345 to Rs 5500 over a period of 25 years from an unauthorised party, although the building along-with land admeasuring 4.25 acres, belonged to Defence and has been on lease to a third party, at a monthly rental of Rs 3.44.

**Defence land and buildings at Wellington are on lease from 1931**

Defence land admeasuring 4.25 acres and buildings thereon at Wellington was leased to Madras Diocesan Trust Association in 1931 for 30 years effective from 01 September 1931 at annual rental of Rs 27.50. The lease was renewable up to 90 years at the option of the lessee. One of the buildings was for exclusive use by YMCA[1]. At the request of the lessee i.e. Diocesan Association, DEO[2], Chennai renewed the lease up to 31 August 1991 at a revised annual rental of Rs 41.25. The Association requested for further renewal of lease up to 31 August 2021 in September 1999.

**Lessor could terminate it on lessee's defaults in payment of rent, sub-leasing**

As per the terms and conditions of the lease agreement, the lessor has the right to terminate the lease without any compensation to the lessee in the event of default in payment of lease rent and/or breach of other terms and conditions like sub-leasing.

[1] Young Men's Christian Association
[2] Defence Estates Officer

**DEO hired one of the buildings on lease from YMCA without checking the ownership**

Notwithstanding that the land and the buildings were leased to the Diocesan Association with the permission to use only one of the buildings for the purpose of YMCA, and the fact that the Diocesan Association was defaulting by not paying the rent, the DEO, entered into a separate lease agreement with YMCA in January 1975 for hiring, 834.44 square metre building for three years at monthly rental of Rs 1345 for providing accommodation to a Commander Works Engineer's office. The DEO also did not link up the fact that the rent receivable from the Diocesan Association was Rs 41.25 per annum for the said Defence land and the buildings. The DEO continued to renew the building lease from time to time up to 31 December 1990. It was only in May 1999 that the DEO realised that the lease agreement for the land and the buildings was with the Diocesan Association, and any dealing with YMCA would lead to legal complications. The DEO then sought confirmation from the Diocesan Association which confirmed in October 1999 that the YMCA was holding a 'Power of attorney' only to sign and execute renewal of the lease agreement of the land and the buildings and the Diocesan Association alone was entitled to the property. Yet, the DEO, has neither terminated the lease and taken over possession of the assets, nor renewed it as of March 2000.

**DEO realised much later that YMCA did not have right to lease out the building**

**DEO obtained sanction for enhancement of rent by suppressing facts**

In the meanwhile in December 1990, upon a request from YMCA for enhancement of lease rent for the building, the DEO obtained, through departmental channel, Ministry's sanction for enhancement of rent to Rs. 5500 per month effective from January 1991 without linking the fact that the building and the land it was located upon were owned by the Ministry of Defence.

The matter was referred to the Ministry in June 2000; their reply was awaited as of December 2000.

## 27. Undue benefit to a private society

**Grossly misusing delegated powers, HQ Western Command sanctioned repairs and modifications to surplus buildings to be used by a private society.**

**HQWC approved the use of Government accommodation by a private Institute**

An Army Institute of Law being funded by a private society, viz. Army Welfare Education Society is scheduled to be set up at Mohali. Pending creation of requisite infrastructure at Mohali, the Institute was to commence its activities at Patiala from July 1999 and continue there for three to four years hence. For this purpose, Chief of Staff, Headquarters Western Command approved in December 1998 use of 11 surplus vintage barracks of a Unit.

**Sub-Area HQ, sanctioned works to bring the accommodation up to the status of the Institute**

In order to bring the barracks up to the "dignity of the Institute", Headquarters, Punjab, Haryana and Himachal Pradesh Sub-Area sanctioned in January 1999 provision of special repairs to the barracks and ancillary facilities like

**The expenditure was debitable to public fund on the pretext of defence use**

approach road, compound-wall, fencing, garages, parking area, etc. at a total cost of Rs 32.21 lakh debitable to public fund on the pretext of renovating the barracks to make them habitable for Junior Commissioned Officers/Other Ranks of the Unit and providing additional facilities for storage of inventories worth Rs 150 crore being maintained by the Unit. The sanctions were accorded despite sufficient accommodation being already available to the unit for accommodating Junior Commissioned Officers/Other Ranks and stores.

Commander Works Engineer (P), Patiala concluded two contracts for Rs 31.11 lakh in March 1999 and one in December 1999 for Rs 3.08 lakh to execute the works. The Commander Works Engineer handed over the barracks, duly repaired, to the Institute in July 1999 for its inauguration in August 1999. The entire work was completed in December 1999, booking Rs 40.16 lakh as of March 2000.

**Estimated cost of works actually carried out was Rs 43.46 lakh**

In addition to these works, the Commander Works Engineer, at the instance of GOC-in-C Western Command, had also initiated three cases between May and September 1999 for provision of additional rooms, false ceilings in some more buildings, glazed tiles, etc. at an estimated cost of Rs 11.25 lakh, requiring revision to the sanction at Rs 43.46 lakh.

Chief Engineer stated in August 2000, that approximate expenditure incurred on special repairs was Rs 25.50 lakh and on original works Rs 17.24 lakh. Chief Engineer could not furnish the authority under which single living accommodation was authorized for visiting JCOs/ORs.

Sanctioning and execution of the aforesaid works by abuse of the delegated powers vested with the Sub-Area Commander and meeting the expenditure from the Public Funds for the use of a private Institute is questionable. This calls for fixing responsibility apart from recovery from the Institute.

The matter was referred to the Ministry in July 2000; their reply was awaited as of December 2000.

## 28. Non-availing of an advantageous offer

**Director General Supplies and Transport of Army Headquarters wilfully ignored an advantageous offer. This resulted in extra expenditure of Rs 85 lakh.**

Insecticide Propoxur 20 *per cent* (trade name Baygon 'C') is a prime hygiene chemical being used by troops. Shelf life of the chemical is two years.

**QMG raised an indent for 61800 litres of Baygon 'C'**

Quarter Master General's Branch of Army Headquarters raised an indent in February 1995 for procurement of 61800 litres of Baygon 'C' for the calendar year 1996.

Director General Supplies and Transport advertised tender enquiry in April 1995. Transelektra Bombay quoted a basic rate of Rs 519 per litre and Bayer (India) Limited Rs 718 to Rs 727 per litre on slab basis with free supply of 15500 litres, provided a minimum order for 44500 litres was placed.

During the Tender Purchase Committee meeting held in June 1995, the firms revised their basic rates as under:

| | |
|---|---|
| Transelektra : | Rs 500 per litre |
| Bayer (India) Limited : | Rs 660 per litre, retaining its original condition in regard to free offer of 15500 litres |

By placing the minimum order of 44500 litres on Bayer (India) Limited, Government could not only avail the free offer of 15500 litres, but would in effect pay Rs 489.50 per litre as against Rs 500 per litre of Transelektra. Yet, the Committee pressed Bayer (India) Limited to reduce the rates in terms of cost price rather than quantity discount. Bayer (India) declined to do so. This was evidently to bag the contract in full.

Director General Supplies and Transport resorted to retendering. In response to the retendering, Transelektra revised the basic rate to Rs 475 per litre and Bayer (India) Limited to Rs 727 per litre for an order less than 40000 litres and at Rs 660 per litre for an order of 40000 litres and also for an order of 44500 litre with free offer of 15500 litres. Director General Supplies and Transport reduced the quantity under procurement to 40000 litres for extraneous reason, simultaneously suggesting procurement of 20000 litres at a later stage, if needed. Even at this stage, Director General Supplies and Transport failed to avail of the free offer and instead split the quantity into two orders, one placing on Bayer (India) Limited for 35000 litres at further negotiated price of Rs 660 per litre in December 1995 and the other on Transelektra for 5000 litres at Rs 475 per litre in February 1996 notwithstanding serious reservations expressed by the Director General Quality Assurance about the chemical contents on the insecticide being produced by Transelektra. Both the firms supplied the ordered quantity in May 1996. Three months later in September 1996, the Director General Supplies and Transport placed further order on Bayer (India) Limited for supply of 20000 litres at a reduced basic price of Rs 620 per litre.

**DGST split the orders leading to extra expenditure of Rs 85 lakh**

In the process, Director General Supplies and Transport failed to utilize the first offer of Bayer (India) Limited of 44,500 litres of chemical which would have included free supply of 15500 litre and ultimately procured 60,000 litres of the chemical at a higher rate leading to avoidable extra expenditure of Rs 85 lakh, besides delays in procurement.

The matter was referred to the Ministry in August 2000, their reply was awaited as of October 2000.

## 29. Extra expenditure in purchasing meat items

**Not projecting a case for procurement of meat items in the proper perspective by Army HQ to Ministry entailed delay in accepting the offer within validity period leading to avoidable expenditure of Rs 21.93 lakh.**

**The lowest rates for meat items were higher than reasonable rates fixed by Panel of Officers**

Headquarters Northern Command invited tenders on 15 January 1997 for supply of meat dressed, meat on hoof and fowl dressed at Srinagar for the period April 1997 to March 1998. The lowest rates quoted were Rs 60, Rs 25 and Rs 53.50 per Kg against the reasonable rates of Rs 59, Rs 24 and Rs 52.50 respectively fixed by a panel of officers. The offer was valid up to 29 April 1997. As the total value of the proposed contract exceeded the financial powers of lower Competent Financial Authority, HQ Northern Command recommended acceptance of rates to Army HQ on 08 February 1997 which was received in Army HQ on 12 February 1997, for obtaining the approval of the Ministry and the associated Finance.

**AHQ delayed the case for 48 days for Ministry's approval**

**Ministry advised retendering**

Army HQ after a delay of 48 days submitted the case to the Ministry on 02 April 1997 for approval. Ministry on 09 April 1997 advised retendering on the grounds that the rates were higher than the reasonable rates fixed by the panel of officers and the rates obtained at nearby stations showed declining trend. Defence Finance concurred with this on 23 April 1997.

**AHQ referred the case again to Ministry in view of peculiar constraints of Srinagar**

Army HQ on 29 April 1997 referred back the case to the Ministry for reconsideration, emphasising that the rates for Srinagar could not be compared with the rates of other stations in view of peculiar constraints being faced in the area.

**Though Ministry/ Defence Finance agreed to above but validity of offer expired**

Though both the Ministry and Defence Finance agreed to the Army HQ views, the offer could not be clinched as the validity period had expired by then.

Consequently, retendering had to be resorted to and the rates received were Rs 65.90, Rs 25.80 and Rs 56.60 per Kg for meat dressed, meat on hoof and fowl dressed, respectively. Contract for meat on hoof and fowl dressed were concluded on 05 August 1997 and 28 August 1997 under the financial powers vested with the Army Commander. The contract for meat dressed was concluded on 30 September 1997 after obtaining requisite approval of the Ministry.

**Contracts at higher rates and local purchase led to additional expenditure of Rs 21.93 lakh**

Procurement of meat group items at higher contracted rates, and resorting to local purchases during the non-contract period resulted in additional expenditure of Rs 21.93 lakh, which was totally avoidable.

Ministry while accepting the facts, stated in December 2000 that delay in submitting the case to Ministry for their approval was due to receipt of large number of contracts for scrutiny in Army HQ for consideration. Ministry added that staff in the Ministry has been advised to ensure speedy disposal of such cases.

Ministry did not indicate any remedial measures to avoid delay in disposal of cases in Army HQ.

## 30. Irregular payment of departmental charges under conservancy contracts

**Station HQ Jammu made irregular payment of Rs 34.69 lakh as departmental charges to Cantonment Board under the conservancy contracts concluded for the years 1994-95 to 1999-2000.**

**Payment for conservancy services are to be made on the basis of actual cost of service**

Regulations provide that Military authorities are responsible for conservancy arrangements within the unit lines of all troops and non-combatants and suitable and economical arrangements should be made with the Cantonment authorities for providing conservancy services. Payments are to be made on the basis of actual cost of the services rendered.

**Conservancy contracts provided for departmental charges of Rs 27.72 lakh**

**Irregular payment of departmental charges was accepted by Station HQ**

It was noticed in Audit that in the conservancy agreements entered into between Station HQ Jammu and the Cantonment Board, for the years 1994-95 to 1998-99, provisions for making the payment at 10 *per cent* of the cost of services towards departmental charges were included whereas regulations stipulate that payments were to be on the basis of actual cost of services rendered. The total amount of departmental charges provided in these contracts was Rs 27.72 lakh. The unauthorised payment of departmental charges was brought to the notice of Station HQ Jammu by Audit in September 1999. While Station HQ Jammu accepted the views of audit in October 1999, and referred the matter to the Controller of Defence Accounts in December 1999 to suggest modalities for recovery, HQ Northern Command suggested in December 1999 that the irregular payment may be allowed to be regularised.

**At the instance of Audit unauthorized payment of Rs 6.97 lakh towards departmental charges was stopped**

Station HQ Jammu entered into a conservancy contract with Cantonment Board Jammu Cantonment for providing conservancy services for the year 1999-2000 for a consideration of Rs 69.17 lakh. On scrutiny of the contract agreement Audit objected to the inclusion of 10 *per cent* departmental charges in the contract as payment was required to be paid as per actual cost of services. The Station Commander agreed with the Audit observation and stopped the payment of departmental charges which resulted in savings of Rs 6.97 lakh.

The matter was referred to the Ministry in August 2000; their reply was awaited as of September 2000.

## 31. Irregular construction of married officer accommodation in a field area

**Commander of a Infantry Division with the approval of Headquarters Northern Command and Army HQ sanctioned the construction of married accommodation for himself in Station 'X' although Ministry has classified the station as field area and a non-family station.**

**Station 'X' was classified as field area**

Station 'X' was classified as a field area where troops are located for reasons of operational consideration alone and they do not live in cantonments.

**A Division Commander with the approval of command HQ and AHQ sanctioned construction of Residential accommodation at Station 'X'**

An Infantry Division Commander with the approval of HQ Northern Command and Army HQ sanctioned the construction of 'Flag Staff House' in October 1992, the official family accommodation in station 'X' at Rs 14.36 lakh, later amended in May 1995 to Rs 19.71 lakh. The works services contracted for by the Commander Works Engineer in August 1995, were completed in October 1998 after incurring Rs 20.83 lakh.

The married accommodation was belatedly allotted and occupied by the Corps Commander in August 1999 which was initially intended for the Division Commander.

HQ Northern Command stated in July 2000 that the Flag Staff House can only be constructed as special item of work, but was erroneously sanctioned as authorized item of work.

Sanctioning of married accommodation in the field area in total disregard to the Government policy calls for fixing of responsibility.

The matter was referred to the Ministry in June 2000; their reply was awaited as of October 2000.

## 32. Wrongful credit of sale proceeds of usufructs to regimental fund

**An Air Defence College credited Rs 1.32 crore on account of sale of usufructs from Defence Land to the regimental fund depriving the Government of its legitimate dues during the period from 1996-97 to 1998-99.**

Contrary to the orders issued by the Ministry in December 1995, Air Defence College had been maintaining the fruit bearing trees existing on Defence Land under its occupation by engaging its troops and also giving plucking rights to local population. The college was meeting the running expenses from its regimental fund. On this ground it was crediting the entire sale proceeds of usufructs into its regimental fund instead of Public Fund. The total amount credited to regimental fund during the period 1996-97 to 1998-99 was Rs 1.32 crore.

Air Defence College is situated on a Defence land at 'Gopalpur-on-sea'. The land includes 460.25 acres of Orchard area. A lot of fruit bearing trees like cashewnut, jackfruit, mango and about 18000 coconut exist on the orchard area.

The college realised revenue on sale of usufructs from the trees during the period from 1996-97 to 1998-99 as under:

| Year | Revenue realised (Rs in lakh) |
|---|---|
| 1996-97 | 42.67 |
| 1997-98 | 44.97 |
| 1998-99 | 44.80 |
| Total | 132.44 |

**The college wrongfully credited sale proceeds to regimental fund**

The college was crediting the entire proceeds to its regimental fund on the plea that it was maintaining the trees in the Orchard area by engaging its troops and meeting the running expenses out of its regimental fund as per the provisions contained in the Ministry's orders of September 1977. This contention is not tenable as provisions contained in Ministry's orders of September 1977 have not been extended beyond December 1995 and such activities are proscribed by the Ministry's orders issued in December 1995 according to which units/formations of Army, Air Force, Navy etc. shall not cultivate the lands under their occupation by engaging either troops or private labour. However, if it was advantageous to the State to let out such lands on lease/license, contract or by security cleared private labour, the same can be done only by Defence Estates Officer concerned to whom the units/formations shall place the lands for management and the revenues realised thereon be credited entirely to the Public Fund viz. Consolidated Fund of India. Since Air Defence College was giving plucking rights of fruits to local population and had little garrison strength to safeguard assets as admitted by them, crediting the sale proceeds of Rs 1.32 crore to regimental fund was irregular and required to be transferred to Public Fund.

**The amount credited to regimental fund was Rs 1.32 crore**

The College authorities stated in April 1999 that they had sought extension of the provisions of September 1977 orders from the Government. Such dispensation is uncalled for in view of the procedures and provisions enunciated in the Government's orders of December 1995.

The matter was referred to the Ministry in August 2000; their reply was awaited as of October 2000.

## 33. Avoidable payment of Sales Tax

**Supply Depots in Rajasthan failed to avail of concessional Sales Tax, on purchase of Liquified Petroleum Gas for free issue to troops which resulted in avoidable payment of Rs 37.04 lakh.**

Depots of Army Service Corps located in Rajasthan were purchasing Liquified Petroleum Gas from Indian Oil Corporation for issue to the troops and were paying Sales Tax ranging from 10 *per cent* to 13.8 *per cent* till July 2000, despite exemption from levy of Sales Tax exceeding five *per cent*, which resulted in avoidable payment of Rs 37.04 lakh by eight depots for the period 1995-96 to 1999-2000.

**Government of Rajasthan exempted LPG from levy of Sales Tax exceeding 5 *per cent***

Government of Rajasthan issued notification in March 1991 exempting sale of any goods excluding coaltar, petrol, diesel, lubricants, stationery, all kinds of building materials and medicines by a registered dealer to the Government of India or any of its departments for its official use from Sales Tax exceeding five *per cent* on the condition that the officer duly authorized by that department to effect purchases on its behalf furnished a prescribed certificate to the selling dealer. The notification of March 1991 was superseded in July 1998 in which no major changes were made except deletion of stationery from the excluded items. Thus, Liquified Petroleum Gas comprised one of the goods on which exemption from levy of higher percentage of Sales Tax was admissible since 1991. Government of Rajasthan, Commercial Taxes Department, Jaipur in March 2000 clarified with reference to Audit query that benefit of concessional rate would be available for liquified petroleum gas.

**Army Depots in Rajasthan failed to avail the Sales Tax exemption on purchase of LPG resulting in avoidable payment of Rs 37.04 lakh**

Supply/ Fuel, Oil and Lubricant depots of Army had been purchasing Liquified Petroleum Gas from Indian Oil Corporation for issue to the troops. The latter levied Sales Tax between 10 *per cent* to 13.8 *per cent* on purchases made by Army Depots. On test check in seven depots and one Gas Agency of Ammunition Depot Bharatpur, out of 15 supply depots/points and Fuel, Oil and Lubricants depots of Rajasthan area, an overpayment of Rs 37.04 lakh on account of excess Sales Tax on the purchases made during the period 1995-96 to 1999-2000 was noticed.

On the matter being pointed out, four depots referred/promised to refer the matter to Indian Oil Corporation in November 1999. The Supply Depot Jodhpur stated in August 2000 that the Corporation issued instructions in June 2000 to their plant managers at various bottling plants to reduce Sales Tax to 5 *per cent* and that was implemented from July 2000.

The matter was referred to the Ministry in August 2000; their reply was awaited as of October 2000.

## 34. Non-levy of penalty by Canteen Stores Department for supplies in default

**Canteen Stores Department failed to implement its own policy of deletion of items from inventory in the event of failure of suppliers to execute the order on two occasions. The Managers of two Area Depots and one Base Depot failed to recover Rs 25.14 lakh towards penalty for delayed supplies.**

**CSD in 1992 introduced penalty for delayed supplies**

Consumer satisfaction, the main objective of Canteen Stores Department, depends largely on execution of supply orders by the suppliers in time. In order to ensure timely supplies by the suppliers, Canteen Stores Department in January 1992 introduced a penalty of five *per cent* of the value of unexecuted order for every 15 days of delay. This was modified in May 1993 to five *per cent* of the value of invoice irrespective of the period of delay in cases of execution of orders after delivery schedule without prior sanction. All the Depot Managers were directed to levy the penalty and raise debit notes while Deputy General Manager (Finance & Accounts) was required to check 10 *per cent* debit notes to ensure compliance. Canteen Stores Department in March 1997 further modified the penalty to two *per cent* for delays up to 30 days and five *per cent* for delays beyond 30 days as well as for non-execution of orders. Canteen Stores Department, in May 1997, however, withdrew the five *per cent* penalty for non-execution of orders and decided to delete the product from the inventory if the supplier failed to execute the order on more than two occasions.

**In May 1997 CSD withdrew penalty for non-supply but decided to delete the item from inventory**

Sample study of implementation of the above policy in Area Depots Khadki and Secunderabad revealed that although in respect of 43 items the suppliers failed to execute the orders on more than two occasions, orders were still placed on them but even these were not honoured. This led to an anomalous situation in that while a supplier was penalised for belated supplies, a supplier who totally defaulted was not penalised in any manner. Canteen Stores Department's May 1997 orders require review to resolve this anomaly.

**Rs 25.14 lakh towards penalty for delayed supplies was also not recovered**

Even for delayed supplies at Area Depots Khadki, Ahmedabad and Base Depot Bombay, Rs 25.14 lakh towards penalty was not recovered, indicating a casual approach by the Depot Managers and Deputy General Manager (Finance & Accounts) of these Depots in enforcing recoveries.

The matter was referred to the Ministry in August 2000; their reply was awaited as of September 2000.

# CHAPTER IV: WORKS AND MILITARY ENGINEER SERVICES

## Review

## 35. Manpower in Military Engineer Services

### 35.1 *Highlights*

- Manpower in MES[1] comprises both Military and Civilians in proportion laid down by Government. Prescribed ratio of Army to civilian officers were not adhered to. Manning of posts by service officers, of higher ranks, involved additional burden of Rs 9.06 crore on MES establishments.

  (Para 35.8.1 and 35.8.2)

- Ministry has been liberal in sanctioning formations like CEs, CWEs and GEs as only 493 such formations were functioning against 592 sanctioned during the five years between 1995-96 and 1999-2000.

  (Para 35.8.1)

- Creation/continuance of various MES formations like Zonal CE, CWE and GE is linked with work load norms and each of these formations are accordingly authorised specified strength of officers. Test check of 20 Zonal CEs, 40 CWEs and 85 GEs disclosed that these formations were functioning either with much less or far in excess of the work load norms. Test check in five Zonal CEs, revealed that sanctioning of strength of officers remained erratic vis-à-vis work load.

  (Para 35.8.3)

- Ratio prescribed by Ministry for posting civilian and Military personnel against subordinate-basic,[2] were not adhered to. In four Commands, posting of Military personnel in excess of the ratio

[1] Military Engineer Services

[2] All personnel below officers rank like Supdt Gde.I, Gde.II, Store Keepers, Clerks, MT driver, draftsman etc, except industrial personnel are termed as Subordinate Basic staff. Industrial Personnel comprise artisans, workmen such as mason, carpenter, blacksmith, fitters, mazdoor etc.

**ranged between 17 and 60 *percent* and in a Command to a maximum of 636 *per cent* in one year.**

**(Para 35.9.2)**

- **Sample check of ceiling and actual posted strength of combined cadres of Store Keeper Grade I and II in all the Commands for the period 1995-96, 1996-97 and 1999-2000 disclosed surplus manpower (Military personnel) involving idle man power cost of Rs 2.87 crore.**

  **(Para 35.9.4)**

- **A Command CE fixed subordinate-basic staff in excess of the strength prescribed by Ministry at the first instance, followed by posting personnel in excess of its own authorization in certain cases.**

  **(Para 35.9.7)**

- **Considering the facts that the actual executions of the work services are carried out by Garrison Engineers, irrespective of whether the contract was concluded by CE or CWE and that the GE has full powers to purchase stores under DGS&D rate contracts, the operation of CWE formation in the MES hierarchy is superfluous. This is particularly so as many GE divisions are functioning directly under the Zonal CEs without the intermediate CWE formations.**

  **(Para 35.11)**

### *35.2 Introduction*

The Military Engineer Services, one of the largest construction agencies in the country were established in 1923 to provide support services to the Army, Navy, Air Force, Coast Guard, Ordnance Factories and the Defence Research and Development Organisation. They are responsible for execution of a wide spectrum of civil works ranging from conventional buildings to complex laboratories, airfields, slipways wharves and other marine works. They also carryout deposit works for other Central Government Departments.

### *35.3 Organisation*

The Military Engineer Services is led by the Engineer-in-Chief who is also the head of Corps of Engineers. As head of the Corps of Engineers he is responsible to Chief of the Army Staff and as administrative head of the Military Engineer Services, is directly responsible to the Ministry of Defence. The Military Engineer Services are organized by Army Commands under the administration of Chief Engineers. The commands are subdivided into Zones, Areas, Divisions and sub-Divisions, and are headed by Zonal Chief Engineers, Commander Works Engineers, Garrison Engineers and Asstt. Garrison Engineers, respectively.

### *35.4 Establishment*

The MES establishment comprises of both Military and Civilian personnel. While the Military personnel are provided from the Corps of Engineers, the civilian personnel are appointed to vacancies by direct recruitment or by departmental promotions.. The establishment is categorised into officers, subordinate basic and subordinate-industrial. The Gazette of India Notifications of July 1989 and 1991 lay down the post wise proportion in which the military and civilian officers to be posted in appointments tenable by both. As of March 2000, the average annual cost of manning the tenable posts by Military and Civilian officers was Rs 2.78 lakh and Rs 2.42 lakh respectively. While the basic subordinate establishment is manned by both army personnel and civilians, the industrial cadre is manned purely by civilians.

### *35.5 Budget and Expenditure*

The budget (Final Grant) and expenditure for the period from 1995-96 to 1999-2000 were as given below:

***(Rs in crore)***

| Year | Budget | | | Expenditure excluding P&A/W&S | | | P&A/ W&S | Percentage of P&A/ W&S to total expenditure |
|---|---|---|---|---|---|---|---|---|
| | CW | RW | TOTAL | CW | RW | TOTAL | | |
| 1995-96 | 975.60 | 1397.27 | 2372.87 | 924.66 | 940.83 | 1865.49 | 519.38 | 27.87 |
| 1996-97 | 1239.91 | 1481.32 | 2721.23 | 1195.09 | 1098.69 | 2293.78 | 615.73 | 26.84 |
| 1997-98 | 1332.00 | 1760.82 | 3092.82 | 1272.07 | 1247.29 | 2519.36 | 798.87 | 31.71 |
| 1998-99 | 1378.91 | 2152.00 | 3530.91 | 1237.15 | 1459.86 | 2697.01 | 895.03 | 33.19 |
| 1999-2000 | 1529.72 | 2489.46 | 4019.18 | 1490.82 | 1726.54 | 3217.36 | 938.48 | 29.17 |

**CW =Capital Works; RW = Revenue Works;**
**P&A = Pay and Allowances;**
**W&S = Wages and Salaries**

### *35.6 Audit objective*

The objective of the review was to :

- analyse the ratio of civilian and military personnel at all levels to ascertain the adherence of ratio prescribed by the Government;
- analyse the staffing pattern in various MES formations with reference to the actual work load;
- examine the relevance of Commander Works Engineers; and
- examine the adequacy of training of MES personnel at various levels.

### *35.7 Scope of Audit*

The review was conducted through a test check of records and documents at E-in-C's Branch, five command Chief Engineers, 20 Zonal CEs, 40 CWEs and 85 GEs.

### *35.8 Officers*

Ministry accords sanction separately for the MES officers establishment for E-in-C's Branch, lower formations and for special projects as additional requirement. After carrying out cadre reviews over the years, the sanctioned strength of 183 officers (service officers: 57, civilian: 126) in March 1977 for E-in-C's Branch had increased to 218 (service officers: 58; civilian: 160) as of March 2000 by upgrading/surrendering various posts. The increase was 19 *per cent.* Similarly, the officers establishment for lower formations as sanctioned in May 1986 for 4526 posts (service officers: 1257, civilian: 3269) had increased to 4946 posts (service officers: 1257 civilian: 3689) as of March 2000 registering an increase of 9.3 *per cent.*

#### *35.8.1 Army Officers*

An analysis of the increase in Army officers sanctioned strength revealed the following.

- Though the number of sanctioned posts for services officers for E-in-C's Branch had increased from 57 to 58, the number of posts for Maj. Gen., Brigadiers and Colonels/Lt. Colonels were increased from none to three, four to five, 14 to 35 respectively with corresponding reductions of posts for Majors. At lower formations, eventhough the number of posts for service officers was kept at 1257, the sanctioned posts for Colonels was increased by 26 numbers with corresponding reduction in the number of posts for Lt. Colonel (21) and Major (5). The increase in sanctioned posts for Army Officers of higher rank will result in increase in the manpower cost of the MES organisation by way of higher pay and allowances to the extent of Rs 96.37 lakh per annum.

- The sanctioned posts were not worked out realistically in that against 32 Zonal CEs post sanctioned, only 26 to 30 zonal CEs functioned during the period 1995-96 to 1999-2000.

- Similarly as against sanctioned posts of 134 Commander Works Engineer only 81 to 86 formations functioned during the five years.

- The number of Garrison Engineer/Asstt. Garrison Engineer (Independent)/ Engineer Works Sections functioned were from 295 to 377 as against 426 sanctioned during the five years.

- The laid down ratio between Army and Civilian officers were not maintained in the following sanctioned posts.

| Rank | Posts Tenable | Army to Civilian officer ratio as given in Gazette Notification of 31.7-1989 | No. of vacancies for Army and civilian officers as reserved in the sanction | | Ratio as per the vacancies given in the sanction |
|---|---|---|---|---|---|
| | | | Army Officers | Civilian Officers | |
| Brigadier | Dy. Director Gen. CE Zone/Project | 3:2 | 18 | 14 | 3:2.3 |
| Colonel | Director at E-in-C's Branch | 1:0.41 | 22 | 01 | 1:0.04 |
| | ACE Zone/Col. Wks at Command | 1:0.41 | 40 | 26 | 1:0.65 |
| | S.O.-I | 1:1 | 41 | 76 | 1:1.85 |
| Major | SO-II | 1:1 | 104 | 163 | 1:1.56 |
| Captain | Dy. Architect. | 1:4 | 13 | 61 | 1:4.69 |
| | ACWE | 1:3 | 08 | 11 | 1:1.37 |
| | AGE | 1:3 | 191 | 474 | 1:2.5 |

- An analysis of the posted strength ranging from 970 to 992 during the period 1997-98 to 1999-2000 revealed that against nine posts for Major General, 28 posts for Brigadiers, 186 posts for Col/Lt. Col about 12 Maj. Gen., 72 Brigadiers and 228 Col/Lt. Col. were posted during the three years involving additional manpower costing Rs 9.06 crore. Moreover while officers of higher ranks were posted in excess of the sanctioned strength in the lower ranks 465 Majors and 201 Capt./Lt./2nd Lt. were posted against the sanctioned strength of 540 and 551 respectively. These lower rank officers are directly involved in planning, execution and maintenance work services in the field offices. Higher ranks were apparently sanctioned to head various MES formations in order to increase the promotions of Service officers through cadre reviews.

### *35.8.2 Civilian officers*

The strength of Civilian Officers sanctioned for E-in-C's Branch had increased over the years from 126 to 160, registering an increase of *27 per cent.* In lower formations, strength of these officers initially sanctioned at 3269 had increased to 3689, registering an increase of 12 *per cent.* This indicated that strength increase was more at administrative level than at executive level.

Against the sanctioned strength of 3849 (160+3689), Civilian officers both for E-in-C's Branch and lower formation the posted strength varied between 3135 and 3279 during the years 1995-96 to 1999-2000, indicating overall deficiency in the posted strength even with reference to that initially sanctioned i.e. 3395 (126 + 3269).

### *35.8.3 Distribution of officers at Command levels*

E-in-C formulated in April 1986 work load norms for establishing various MES formations. The norms were revised from time to time. Ministry had also laid down in July 1987 the scales for the officers establishment for various MES formations. Non-adherence to the norms were observed in the following formations:-

| **Formations** | **Work Load Norms/Actual (Rupees in crores)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1995-96 | | 1996-97 | | 1997-98 | | 1998-99 | | 1999-2000 | |
| | Norms | Actual | Norms | Actual | Norms | Actual | Norms | Actual | Norms | Actual |
| CE Chandigarh | 87.20 | 140.10 | 95.92 | 172.66 | 93.00 | 150.22 | 102.00 | 153.65 | 110.00 | 202.34 |
| CE Bhatinda | -do- | 84.81 | -do- | 92.34 | -do- | 81.92 | -do- | 99.02 | -do- | 106.73 |
| CE(WAC) AF Jalandhar | -do- | 125.62 | -do- | 98.87 | -do- | 110.26 | -do- | 105.79 | -do- | 162.32 |
| CE Calcutta Zone | -do- | 84.70 | -do- | 84.14 | -do- | 86.41 | -do- | 95.99 | -do- | 142.82 |
| CE Siliguri Zone | -do- | 45.21 | -do- | 50.79 | -do- | 62.29 | -do- | 67.88 | -do- | 77.15 |
| CE Shillong Zone | -do- | 70.86 | -do- | 93.87 | -do- | 103.29 | -do- | 102.35 | -do- | 117.60 |
| CE(AF)Shillong | -do- | 59.37 | -do- | 64.74 | -do- | 70.19 | -do- | 86.32 | -do- | 105.67 |
| CE Pune Zone | -do- | 157.23 | -do- | 115.38 | -do- | 123.38 | -do- | 132.06 | -do- | 178.06 |
| CE(R&D)Sec'bad | -do- | 62.83 | -do- | 69.73 | -do- | 94.72 | -do- | 89.46 | -do- | 106.46 |
| CE(Fy)Hyderabd | -do- | 82.78 | -do- | 87.27 | -do- | 99.57 | -do- | 79.31 | -do- | 90.74 |
| CE Delhi Zone | -do- | 138.71 | -do- | 117.17 | -do- | 100.59 | -do- | 142.40 | -do- | 185.62 |
| CE Lucknow | -do- | 128.87 | -do- | 133.67 | -do- | 139.00 | -do- | 162.61 | -do- | 192.93 |
| CE Chennai | -do- | 106.00 | -do- | 111.34 | -do- | 106.83 | -do- | 101.51 | -do- | 151.76 |
| CE Udhampur | -do- | N.A. | -do- | 105.50 | -do- | 90.78 | -do- | 98.48 | -do- | 146.57 |
| CE Srinagar | -do- | N.A. | -do- | 85.65 | -do- | 73.52 | -do- | 73.52 | -do- | 70.14 |
| CE Pathankot | -do- | N.A. | -do- | 95.99 | -do- | 79.67 | -do- | 82.13 | -do- | 115.25 |
| CE(AF)Udhampur | -do- | N.A. | -do- | N.A. | -do- | N.A. | -do- | 41.49 | -do- | 38.71 |

From the above table it can be seen that while CEs Chandigarh, Jalandhar, Pune, Delhi, Chennai and Lucknow had workload much in excess of the norms, the workload for CEs Bhatinda, Calcutta, Silliguri, (AF) Shillong, (R&D) Secunderabd, (Fy) Hyderabad, Srinagar, (AF) Udhampur was considerably less except during 1999-2000 at CE Calcutta.

Further, scrutiny of the sanctioned strength of officers establishment at 5 out of 20 Zonal CEs revealed that the number of officers sanctioned did not bear any relation either to the prescribed workload norms or to the actual workload as under:

| **Formations** | **1995-96** | | | **1996-97** | | | **1997-98** | | | **1998-99** | | | **1999-2000** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Work-load Norms | Actual work-load | No. of officers sanctioned | | | | | | | | | | | | |
| | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** | **A** | **B** | **C** |
| CE Pune Zone | 87.2 | 157.23 | 54 | 95.92 | 115.38 | 54 | 93 | 123.38 | 55 | 102 | 132.06 | 51 | 110 | 178.06 | 53 |
| CE(Fy) Hyderabad | -do- | 82.78 | 42 | -do- | 87.27 | 42 | 93 | 99.57 | 42 | -do- | 79.31 | 41 | -do- | 90.74 | 48 |
| CE(R&D)Sec'bad | -do- | 62.83 | 42 | -do- | 69.73 | 42 | 93 | 94.72 | 42 | -do- | 89.46 | 46 | -do- | 106.46 | 53 |
| CE Chandigarh Zone | -do- | 140.10 | 46 | -do- | 172.66 | 46 | 93 | 150.22 | 46 | -do- | 153.65 | 46 | -do- | 202.34 | 48 |
| CE Bhatinada Zone | -do- | 84.81 | 51 | -do- | 92.34 | 49 | 93 | 81.92 | 49 | -do- | 99.02 | 45 | -do- | 106.73 | 29 |

The above table would also indicate that:

- Although the actual work load entrusted with the CE Chandigarh Zone had been on increasing trend from Rs 140.10 crore in 1995-96 to Rs 202.34 crore in 1999-2000, number of officers posts sanctioned remained at 46 up to the year 1998-99 and at marginally increased strength of 48 in 1999-2000, indicating unrealistic authorization of officers strength;

- Sanctioned strength of officers at CE(Fy) Hyderabad and the CE Chandigarh Zone was the same despite the former having less than half of work load of latter. While CE Pune Zone and CE(R&D) Secunderabad were entrusted with a work load of Rs 178.06 and Rs 106.46 crore in the year 1999-2000, the sanctioned strength was pegged equally at 53 officers.

- When the work load of CE(R&D) Secunderabad and CE Bhatinda Zone were identical in the year 1999-2000; the sanctioned strength of officers were at considerable variance viz. 53 and 29 respectively; and

- In respect of CE Bhatinda Zone, the sanctioned strength of officers was 51 for a work load of Rs 84.81 crore during 1995-96, whereas when the work load had increased to Rs 106.73 crore in 1999-2000, the sanctioned strength was pruned down to 29.

- Sample check of work load norms vis-à-vis actuals in 40 CWEs formation and 85 GE/AGE(I) formations also revealed the disturbing trend, in that while 5 CWEs and 9 GE/AGE(I) were functioning with less work load, 13 CWEs and 22 GEs/AGE(I) were functioning with more than 50 *percent* of the prescribed norms of workload. It would indicate that the these formations were either under staffed or over staffed.

### *35.9 Subordinate Staff-Basic*

#### *MES Organization as a whole*

The Ministry in February 1992, laid down the ceiling for the total number of staff to be posted in the MES formations.

The subordinate basic staff, comprised of 28 posts some of them being tenable by both civilian and Military personnel. As per the extant orders of the Ministry, the ratio of Civilian to Military personnel is to be maintained at 2:1 but within the ceiling prescribed for posting basic staff.

*35.9.1* The postings of basic staff both civilian and military personnel during the five years 1995-96 to 1999-2000 were as given below:

| Year | Posted | | To be posted in the ratio of 2:1 (Civil:Army) | | Military personnel posted in excess | Percentage of excess posting | Manpower cost of the Military personnel excess posted (Rs in crore) |
|---|---|---|---|---|---|---|---|
| | Civilian | Military | Civilian | Military | | | |
| 1995-96 | 17418 | 9972 | 17418 | 8709 | 1263 | 14.50 | 7.30 |
| 1996-97 | 15314 | 7803 | 15314 | 7657 | 146 | 2.00 | 0.96 |
| 1997-98 | 13404 | 7856 | 13404 | 6702 | 1154 | 17.20 | 10.26 |
| 1998-99 | 14239 | 7815 | 14239 | 7120 | 695 | 9.76 | 6.18 |
| 1999-2000 | 13666 | 8170 | 13666 | 6833 | 1337 | 19.57 | 13.82 |
| Total | | | | | | | 38.52 |

From the above table it is seen that the prescribed ratio of 2:1 Civilian and Military personnel was never adhered to during the period under review and the military personnel were posted in excess of the ratio, varying from 15 to 20 *per cent* during 1995-96, 1997-98 and 1999-2000. The cost of excess posting of Military personnel during the period 1995-96 to 1999-2000 was Rs 38.52 crore.

*35.9.2* At Command Level

Further analysis of the distribution of the ceiling for personnel between various commands and the actual posted strength revealed that the prescribed ratio was not maintained in any Command. The ratio in the posted strength of Military personnel in excess of authorisation, ranged between 34 to 60 *per cent* in Eastern Command, 2 to 34 in Western Command, 4 to 18 in Central Command and 9 to 636 in Northern Command.

*35.9.3* Moreover, E-in-C did not follow uniformity in fixing of ceiling for each Command and postings there against of basic staff. For workload of Rs 100 crore the posted strength of basic staff in each command varied from 672 to 1850 and the distribution of ceiling ranged from 925 to a maximum of 2243 within Western Command itself as given in the table below:

| Command | 1995-96 | | 1996-97 | | 1997-98 | | 1998-99 | | 1999-2000 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | No. of personnel as per ceiling (A) | No. of personnel actual (B) | (A) | (B) | (A) | (B) | (A) | (B) | (A) | (B) |
| Southern | 1650 | 1413 | 1481 | 1227 | 1548 | 1290 | 1391 | 1162 | 1178 | 949 |
| Eastern | 1979 | 1640 | 1821 | 1434 | 1540 | 1180 | 1663 | 1248 | 1342 | 1031 |
| Western | 2243 | 1850 | 1357 | 1103 | 1424 | 1101 | 1299 | 1031 | 925 | 757 |
| Central | 1677 | 1499 | 1663 | 1360 | 1649 | 1344 | 1615 | 1325 | 1276 | 1084 |
| Northern | 1398 | 1269 | 1333 | 1107 | 1150 | 672 | 1105 | 917 | 968 | 861 |

'A' = No. of personnel as per ceiling
'B' = No. of personnel actual

***35.9.4*** Sample check of posted strength against the posts of Store Keeper Grade-I and II disclosed surpluses over the combined ceiling for these posts during the years 1995-96, 1996-97 and 1999-2000. There were surpluses of 191, 17 and 209 respectively, resulting in avoidable idle manpower, costing Rs 2.87 crore.

***35.9.5*** In Western, Central and Northern Commands, the posted strength was not only in excess of authorization but the combined surplus posted strength of these three commands was also over and above the total deficiency of the other two Commands during 1995-96, 1996-97 and 1999-2000. The deficiency in the combined posts of Store Keeper Grade I and II was persistent in all the five years, ranging from 29 to 100 in Southern Command and in Eastern Command the deficiency persisted from 9 to 86 during the period 1995-96 to 1998-99 as indicated below. Eventhough the Command Chief Engineer kept the E-in-C informed of the deficiencies and surpluses through their periodical reports, the latter did not take necessary remedial action.

| **Command** | **(+) Surplus/(-)Deficiency of posted strength in combined cadre of Store Keeper Gde.I and II** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1995-96** | | **1996-97** | | **1997-98** | | **1998-99** | | **1999-2000** | |
| Southern | (-) 51 | | (-) 94 | | (-) 90 | | (-) 100 | | (-) 29 | (-)29 |
| Eastern | (-) 9 | (-)60 | (-) 86 | (-)180 | (-) 70 | (-)160 | (-) 61 | (-)161 | (+) 38 | |
| Western | (+) 132 | | (+) 72 | | (+) 67 | | (+) 28 | | (+) 95 | (+)238 |
| Central | (+) 95 | (+)251 | (+) 64 | (+)197 | (+) 21 | (+)138 | (+) 19 | (+)87 | (+) 45 | |
| Northern | (+) 24 | | (+) 61 | | (+) 50 | | (+) 40 | | (+) 60 | |

### *35.9.6 At lower formations (Zonal CE, CWE/GE level)*

Ministry laid down in July 1987 norms for providing basic staff in various MES formations. As per this norms, the number of basic staff to be provided are as follows:

| | | |
|---|---|---|
| Chief Engineer Zone/Project | - | 171 |
| Commander Works Engineer | - | 62 |
| Garrison Engineer | - | 40 |
| Asst. Garrison Engineer (Ind.) | - | 27 |
| B/R Sub Division | - | 8 |
| E/M Sub Division | - | 9 |
| B/S Sub Division | - | 9 |

***35.9.7*** A test check in three Zonal/Project Chief Engineers, four Commander Works Engineers and three Garrison Engineers under CE Southern command revealed that both authorisation and the posted strength were more than the prescribed norms as shown below:

| Formations | Total Basic Staff as per norms | 1995-96 | | 1996-97 | | 1997-98 | | 1998-99 | | 1999-2000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Authorised | Posted | A* | P@ | A | P | A | P | A | P |
| CE Pune Zone | 171 | NA | NA | 230 | 212 | 212 | 199 | 197 | 194 | 186 | 185 |
| CE(Fy) Hyderabad | 171 | 209 | 173 | 208 | 180 | 164 | 168 | 166 | 172 | 165 | 164 |
| CE(R&D) Sec'bad | 171 | 214 | 192 | 214 | 178 | 179 | 174 | 176 | 174 | 179 | 167 |
| CWE(AF) Sec'bad | 62 | 79 | 82 | 69 | 70 | 66 | 70 | 65 | 65 | 64 | 61 |
| CWE Pune | 62 | 96 | 71 | 88 | 69 | 83 | 69 | 88 | 71 | 81 | 64 |
| CWE Kirkee | 62 | 89 | 83 | 81 | 79 | 74 | 74 | 64 | 73 | 62 | 68 |
| CWE(A) Sec'bad | 62 | 80 | 76 | 83 | 81 | 68 | 75 | 80 | 76 | 70 | 75 |
| GE Chennai | 74 | 102 | 99 | 100 | 99 | 78 | 89 | 80 | 83 | 81 | 83 |
| GE(S) Bangalore | 74 | 88 | 79 | 88 | 79 | 78 | 70 | 74 | 68 | 74 | 69 |
| GE(N) Bangalore | 74 | 89 | 77 | 89 | 74 | 79 | 74 | 81 | 77 | 76 | 76 |

***A = Authorised, @P = Posted**

Surplus postings at certain formations, indicated idle manpower.

### *35.10 Delay in downgradation/disbandment of MES formations functioning with work load less than the norms*

The workload norms for creation/continued existence of MES formations is related to the work load norms prescribed from time to time.

A sample check of the actual work load handled by the MES formations revealed that in some of the formations the actual work load was much less than the prescribed norms as indicated below:

| Formations | 1995-96 | | | 1996-97 | | | 1997-98 | | | 1998-99 | | | 1999-2000 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PW | AW | Percent | PW | AW | Percent | PW | AW | Percent | PW | AW | Percent | PW | AW | Percent |
| CE Siliguri | 87.20 | 30.49 | 35% | 95.92 | 46.87 | 49% | 93 | 56.87 | 61% | 102.00 | 62.20 | 60% | 110 | 49.19 | 45% |
| CE Srinagar | -do- | N.A. | - | -do- | 85.65 | 89% | -do- | 73.52 | 79% | -do- | 73.32 | 72% | -do- | 70.14 | 63% |
| CE,AF, Udampur | -do- | N.A. | - | -do- | N.A. | - | -do- | N.A. | N.A. | -do- | 41.49 | 41% | -do- | 38.71 | 35% |
| CWE Bhatinda | 17.25 | 11.68 | 67% | 18.97 | 11.93 | 63% | 20 | 10.95 | 55% | 22.00 | 13.02 | 59% | 24 | 15.35 | 64% |
| CWE(A) Jamnagar | -do- | N.A. | - | -do- | N.A. | - | -do- | 14.58 | 73% | -do- | 13.10 | 59% | -do- | 16.46 | 68% |
| CWE Ferozpur | -do- | 10.77 | 62% | -do- | 11.23 | 59% | -do- | 20.02 | 100% | -do- | 16.55 | 75% | -do- | 17.94 | 74% |
| CWE(NAS) Arkonam | -do- | 17.71 | 100% | -do- | 10.93 | 58% | -do- | 14.43 | 72% | -do- | 12.19 | 55% | -do- | N.A. | (-) |
| CWE Kanpur | -do- | 9.61 | 56% | -do- | 10.35 | 55% | -do- | 13.24 | 66% | -do- | 12.89 | 58% | -do- | 13.59 | 56% |
| GE(E) Allhabad | 5.91 | 2.24 | 38% | 6.50 | 2.31 | 35% | 7.00 | 2.49 | 35% | 8.00 | 3.26 | 40% | 9.00 | 4.95 | 55% |
| GE(P) Fy. Kanpur | -do- | 1.52 | 26% | -do- | 1.37 | 21% | -do- | 3.02 | 43% | -do- | 1.35 | 17% | -do- | 1.57 | 17% |
| GE Umroi | -do- | 4.86 | 82% | -do- | 3.89 | 60% | -do- | 5.03 | 72% | -do- | 3.15 | 39% | -do- | 3.99 | 44% |
| GE Silchar | -do- | 1.54 | 26% | -do- | 2.49 | 38% | -do- | 2.96 | 42% | -do- | N.A. | (-) | -do- | 4.68 | 52% |
| GE Jorhat | -do- | 3.46 | 56% | -do- | 3.77 | 58% | -do- | 4.07 | 58% | -do- | 4.65 | 58% | -do- | 6.80 | 75% |
| GE Ojhar | -do- | 4.54 | 77% | -do- | 2.07 | 32% | -do- | 2.46 | 35% | -do- | 2.63 | 33% | -do- | 8.35 | 93% |
| GE(P) Bangalore | -do- | 2.53 | 43% | -do- | 3.38 | 52% | -do- | 3.42 | 49% | -do- | 5.77 | 72% | -do- | 6.29 | 70% |

PW = Prescribed workload in crore of Rupees
AW= Actual work load in crore of Rupees

The above table would indicate that save for 2 formations, viz. CE Srinagar Zone and CWE Ferozpur, the remaining 13 formations were functioning without adequate workload, yet these formations were not downgraded by the E-in-C.

Based on a proposal mooted by HQ Southern Command in May 1997, E-in-C sanctioned the formation of a Garrison Engineer E/M at Secunderabad. The Division started functioning from 1997-98. HQ Southern Command intimated in June 1998 E-in-C's Branch that erroneous projection of E/M workload during the year 1997-98 in respect of GE(S) Secunderbad had resulted in creation of GE E/M. It was recommended to do away with the GE E/M division and restore the erstwhile arrangement of one E/M sub division each in the already existing three GEs at Secunderbad. Furthermore, arrangement of a centralized GE E/M for the entire station was found impractical. However the status-quo continued and the GE E/M was still functioning with four E/M sub divisions as of August 2000.

### *35.11 Lack of justification in the continued functioning of the Office of Commanders Works Engineer*

Commanders Works Engineer under Zonal CEs are responsible for technical and administrative control over the GEs/AGEs under them. The office of the CWE is also responsible for control of funds, preparation and submitting scheme designed to reduce cost of maintenance, planning and conclusion of contracts in respect of capital works, procurement of stores for capital works and training of industrial personnel. As GE is ultimately responsible for execution of works services, irrespective of whether the contract was concluded by CE or CWE and also he has full power for procurement of stores against DGS&D rate contracts, the duties performed by the CWE can easily be handled by the GE by suitably enhancing his financial powers or alternatively dividing the work between CEs and GEs. On the contrary, the enhanced power delegated by the Ministry in March 1999 for the GE to conclude all type of contracts, was curtailed by the E-in-C in April 2000 by imposing a ban on conclusion of contracts for capital works by the GE.

It would be worthwhile to note that all the GEs under CE(R&D) formations are functioning without the intermediate CWEs formation. Further it was also noticed that CWE(AF) Jorhat was disbanded in March 1999, and the three GEs under him viz., GE(AF) Jorhat, Chabua and Tezpur were made independent GEs directly under the control of CE. Similarly, E-in-C disbanded the functioning of CWE(P) Vizag in May 1999 and made the 3 GEs viz. GE(P) Vizag, GE vizag and GE Chilka independent. From the foregoing, doing away of the CWEs office in the MES hierarchy merits consideration.

### *35.12 Training*

Right persons with requisite qualification, exposure and experience hold various assignments to ensure proper orientation and greater sense of belonging and appreciate the needs of the environment wherein they work. This can be achieved by subjecting the personnel to regular training. Having found such training culture missing in the Military Engineer Services, the E-in-C laid down a training policy in May 1990. The training policy, inter-alia, laid down the various courses of training, the participation level, the number of personnel to be trained, the responsibility for organising and conducting the trainings.

Test check of the implementation of training policy revealed the following:

Detailing of Group 'A' officers for Advanced Technical Training at College of Military Engineering Pune, and for Post Graduate programmes at Indian Institute of Technology and other Engineering Institutions is the responsibility of E-in-C's Branch. The number of such courses identified in the training policy was nine at College of Military Engineering and five at Indian Institute of Technology/Universities. The training policy envisaged training of 222 and 7 officers annually at College of Military Engineering Pune and IIT/ Universities respectively. Against this planned target, the number of officers detailed for Advanced Technical Training Courses was very low ranging from 23 to 89 during the years 1995-96 to 1999-2000.

A sample check of training of personnel, the responsibility of which rests with the Command Chief Engineer, Zonal Chief Engineer and the Commander Works Engineer revealed that at Southern Command, there were shortfalls in training of officers and subordinate staff during the years 1995-96, 1996-97 and 1998-99. Shortfall in training of industrial personnel was also noticed during the year 1997-98 and 1999-2000, as shown below:

| Year | Category | No. to be trained | No. actually trained | Shortfall | % of shortfall |
|---|---|---|---|---|---|
| 1995-96 | Officers | 608 | 370 | 238 | 39 |
| | Supervisory Staff | 501 | 476 | 25 | 5 |
| | Industrial Staff | 75-90 | 678 | NIL | NIL |
| 1996-97 | Officers | 858 | 226 | 632 | 74 |
| | Supervisory Staff | 801 | 590 | 211 | 26 |
| | Industrial Staff | 770 | 773 | Nil | NIL |
| 1997-98 | Officers | 187 | 187 | Nil | NIL |
| | Supervisory Staff | 1120 | 289 | 831 | 74 |
| | Industrial Staff | 1384 | 443 | 947 | 68 |
| 1998-99 | Officers | 530 | 449 | 81 | 15 |
| | Supervisory Staff | 1232 | 1232 | NIL | NIL |
| | Industrial Staff | 1537 | 1537 | NIL | NIL |
| 1999-00 | Officers | Feed Back Report not yet finalized | | | N.A. |
| | Supervisory Staff | Feed Back Report not yet finalized | | | N.A. |
| | Industrial Staff | 135 | 93 | 42 | 31 |

### *35.13 Conclusion*

Prescribed ratio for engaging Army personnel versus Civilian were not adhered to particularly in higher ranks causing additional burden of Rs 96.37 lakh per annum by way of higher man power cost. Requirement of various posts to head formations like CE, CsWE and GE were not properly assessed. Various Zonal CEs, CsWE and GEs were functioning either with much less or far in excess of the workload norms. Ministry's orders prescribing ratio between military and Civilian personnel for posting to various subordinate posts was not adhered to. Since the actual execution of works services are carried out by the GEs, irrespective of the fact whether the contracts was concluded by higher formations or themselves; and in as much as the GEs are endowed with full powers to purchase stores under DGS&D Rate contracts, continuance of CWE formation would require relook.

The review was referred to the Ministry in September 2000, their reply was awaited as of November 2000.

## Miscellaneous

### 36. Non-utilisation of accommodation due to defective projection and planning of essential services

**Accommodation constructed for Navy at a cost of Rs 2.19 crore is lying vacant for the last 17 to 24 months due to unrealistic assessment of availability of water and electricity by Naval Officers and Engineers.**

Inadequate investigation by Board of Officers comprising members of Navy and Military Engineer Services led to wrong assumption of water/electric availability. This resulted in non-utilisation of accommodation even after 17 to 24 months of their construction. Further, Naval Headquarters split works services for office accommodation and residential accommodation at Rs 76.31 lakh and Rs 92.63 lakh respectively to avoid obtaining Ministry's sanction.

**Board of Officers opined that electricity can be tapped from LT line and existing bore wells can be developed**

Two Board of Officers consisting members of Naval Technical Group/Naval Liaison Cell and Military Engineer services assembled in August 1994 and June 1995 recommended residential accommodation for officers and sailors and also office accommodation for Naval Technical Group/Naval Liaison Cell respectively at Bangalore. It was well known to both the Boards that the location earmarked for the construction of said accommodation was isolated and lacked essential services, viz, external electric and water supply. Though the Garrison Engineer certified that the department did not have the electricity supply services in the nearby area and Karnataka Electricity Board also did not give any written commitment to provide necessary electricity, the Board opined that electricity could be provided by tapping Low Tension Power from nearby lines of Karnataka State Electricity Board. As regards water supply the Boards opined that the requirement could be met by developing the existing bore wells.

**Naval HQ issued two sanctions for OTM and residential accommodation , by splitting the project**

Although the work services for office accommodation and residential accommodation for the above establishments at Bangalore were part of one project and required to be sanctioned by Ministry of Defence, yet the Naval Headquarters ignoring their delegated financial power accorded two sanctions, in December 1995 for provision of office accommodation at Rs 76.31 lakh, amended to Rs 84.32 lakh in November 1998 and in February 1996 for provision of residential accommodation for six officers and ten sailors at a cost of Rs 92.63 lakh.

**Reactivating of existing bore wells was not found feasible**

While the works were in planning stage, the Garrison Engineer (Project) Bangalore in October 1996 belatedly placed an order on a firm to check the feasibility of re-juvenating the existing bore wells. The firm reported in November 1996 that the existing bore wells can not be reactivated and suggested that fresh bore wells be drilled. Accordingly a Board of officers assembled in November 1996 recommended construction of three deep bore wells, one each for office, sailors and officers accommodation. However, these recommendations had not been acted upon and after one and a half years another Board constituted in May 1998 recommended the same provision. Based on which Headquarters Southern Naval Command issued a sanction after nine months in March 1999 at an estimated cost of Rs 10.41 lakh.

**Chief Engineer concluded contracts for OTM and married accommodation and completed them in 1998**

Even before ensuring the availability of external services, the Chief Engineer concluded three contracts in July/October 1997 for construction of residential accommodation for sailors and officers and office accommodation. The works under all these contracts were completed between May 1998 and December 1998 at a cost of Rs 2.19 crore.

**Electricity Board refused to provide L.T. supply**

In the meantime the State Electricity Board in April 1998 expressed their inability to provide Low Tension Power supply but offered to provide High Tension supply. Accordingly, a Board of officers assembled in August 1998 recommended a supplementary work for HT supply and the same was sanctioned by Naval HQ in November 1998 for Rs 8 lakh.

**Water/electric supply works were completed in February 2000**

**User unit did not take over the accommodation as of May 2000 due to non-functioning of essential services**

The work services for external electric supply and water supply were contracted for in April 1999/August 1999 after completion of main building work. Both the works were completed in February 2000. However, the user unit did not take over the accommodation as of May 2000 due to non-functioning of water supply system, non-completion of compound wall work and installation of water cooler and air conditioners. Further Rs 3.60 lakh had to be paid towards rent reimbursement to the officers for the period June 1998 to May 2000 and expenditure of Rs 3.10 lakh incurred on watch and ward of the vacant buildings/land.

The matter was referred to the Ministry in June 2000; their reply was awaited as of August 2000.

## 37. Payment for water lost in transmission from MIDC tapping junction to R&D(E) Pune take over point

**MES has incurred infructuous expenditure of Rs 1.38 crore towards payment for water lost in transmission up to October 2000.**

Due to inadequate supply of water from Pune Municipal Corporation, Research and Development Establishment (Engineers) Dighi entered into a contract with MIDC[3] in November 1990 for a daily supply of 2250 cubic metres of water through MES[4]. Between April 1992 and October 2000, MES paid MIDC Rs 1.38 crore for 14.15 lakh cubic metres of water which was lost in transmission. This line loss accounted for 22 *per cent* of the total water supplied by MIDC.

**Transmission loss is apportioned by MIDC between MES and another organisation**

MIDC supplies the water from their tapping junction where a Master water meter is installed. From this tapping junction, water is also fed to another organisation. Both users have installed meters at their respective take over points to measure the water actually drawn. The distance between MIDC's tapping junction and the take over point is 7.5 kms. For billing purposes, MIDC used to consider the consumption recorded in the meters installed by users and also the consolidated consumption recorded by the Master meter. The difference between the Master meter reading and the total consumption recorded by the meters of users being treated as line loss. The line loss was passed on to users in proportion to their actual consumption. MIDC handed over the pipeline to MES in April 1991. The latter was responsible for its further maintenance.

Audit scrutiny disclosed that the line loss passed on to Research and Development Establishment between April 1992 and October 1999 ranged between 1 *per cent* to an abnormally high of 234 *per cent* of the water actually consumed. On four occasions, the monthly line loss even exceeded the water actually received.

**MES paid Rs 1.38 crore for 14 lakh cubic metre water lost in transmission**

Inspite of the recurrent, extraordinarily high quantum of water lost in transmission, the MES routinely paid the bills and did not pursue the matter with MIDC. The casual approach in checking of bills was glaring in September 1999 when an overpayment of Rs 6.27 lakh was made due to arithmetical error in the bill. In November 1999, Garrison Engineer agreed to examine the matter jointly with MIDC to contain the line loss to the barest minimum. Garrison Engineer replaced the meter installed at Dighi in May 2000. Master meter had also been replaced in March 2000. Despite these arrangements, water loss in transmission continued to persist. Scrutiny of bills subsequent to March 2000 disclosed that loss of water ranged between 7 to 30 *per cent* during the period from April 2000 to October 2000. For the period April 1992 to October 2000, the loss amounted to 14.15 lakh cubic meter and

[3] Maharashtra Industrial Development Corporation
[4] Military Engineer Services

represented 22 *per cent* of the total water supplied by MIDC. In terms of value the line loss represented Rs 1.38 crore.

The matter regarding continued payment for water lost in transmission would need investigation and fixing of responsibility.

The matter was referred to the Ministry in June 2000; their reply was awaited as of November 2000.

## 38. Cracks in garages and collapse of living accommodation due to defective design

Formulation of defective design for garages and inadequacy in structural design for living accommodation for Airmen led to cracks in garages and collapse of living accommodation during construction as mentioned below. The cost of rectification in the two cases was Rs 75.88 lakh

*Case I*

### Cracks in Garages due to defective design

**Chief Engineer Jaipur Zone formulated a defective design in construction of garages at Jodhpur; the garages cracked shortly after completion requiring rectification at Rs 53.46 lakh as against original cost of Rs 70.72 lakh.**

**Zonal Chief Engineer Jaipur got 58 garages constructed in January 1997**

**The garages developed cracks by July 1997 due to defective design**

**Structural drawings did not specify details regarding anchoring of reinforcement**

**The design did not account for the lateral force being generated by RCC slab**

**The aforesaid defects resulted in uneven plane of RCC slab, causing depression**

Chief Engineer Jaipur Zone constructed 58 garages by January 1997 through a contractor at Rs 70.72 lakh. The contractor executed the work as per the design and specifications formulated in the contract. The garages developed cracks within few months by July 1997. The cracks occurred due to defective design involving portal frame braced with cross-beams by providing two 16mm tor bars as against requirement of a minimum of three such bars in the bottom portion of the portal beams. Though the Chief Engineer introduced an additional bar in the middle portion of the portal beams during execution details regarding anchoring of reinforcement between the beams and interior columns for obtaining the desired portal effect were not given in the structural drawings. Eventhough the contractor provided the beams with steel to the extent of 6.03 sq.cm. as against 4.02 sq.cm. specified in the drawings, yet it fell short of 9 sq.cm. required. This resulted in portal beams losing their effect by bending. Apart from this, the Chief Engineer did not account for in the design, the resultant lateral force that would be generated by 1:20 slope in the RCC slab catered for elsewhere in the contract. Because of defects in the design, the depth of the beams below the slab was found to be less at places than that required and the top surface of the finished RCC slab was of uneven plane, causing depression. Expansion joints and thermal insulation on roofs to guard against varying temperature in the region were also not provided.

**E-in-C suggested in January 1998 remedial measures**

**The CE estimated the cost of rectification at Rs 53.46 lakh**

**State is saddled with avoidable expenditure of Rs 53.46 lakh**

After inspection, Engineer-in-Chief suggested in January 1998, remedial measures, which included guniting 25mm using chicken wiremesh on top of the entire roofs slabs, provision of crumple joints in the roof slabs and painting of the roof slab with heat reflective paint. The Chief Engineer estimated in April 1998 cost of the works at Rs 53.46 lakh and forwarded his proposal to Headquarters Southern Command for administrative approval. This was awaited as of December 1999. The Chief Engineer had however, expressed his concern on providing such remedial measures considering the true geometry requiring high degree of skill and precision jobbing and it would be wiser to go for alternative accommodation at the same cost. The fact remains whether the remedial work is being executed or alternative accommodation constructed, the state is burdened with avoidable additional expenditure due to the defective design formulated ab-initio, by the Chief Engineer.

The user unit stated in December 1999 that the cracks had extended and posed security and natural hazards.

The matter was referred to the Ministry in July 2000; their reply was awaited as of August 2000.

*Case II*

**Collapse of living accommodation during construction**

**Airmen single living accommodation collapsed during execution due to adoption of inadequate structural design resulting in additional expenditure of Rs 22.42 lakh on rectification work besides lowering the available accommodation.**

Single living accommodation for 194 airmen at a Station collapsed during execution largely due to inadequate structural design formulated by a Chief Engineer's staff. Laxity in supervision and poor workmanship contributed to the collapse. Consequently, Government was put to avoidable additional expenditure of Rs 22.42 lakh on rectification work; besides loss of revenue of Rs 7.04 lakh.

**Single airmen accommodation was designed in double storey**

Chief Engineer (Air Force) Western Air Command concluded a contract with a firm in February 1994 for construction of living accommodation alongwith mess and ancillary facilities for 194 single airmen and 13 civilian quarters for Rs 85.30 lakh. As per the design and specifications of the contract, the construction was to be in double storey, accommodating 96 airmen on ground floor and 98 on first floor.

**During execution Verandah portion collapsed due to defective design**

When the construction was 46 per cent complete in November 1994, a portion of the verandah collapsed. The collapse was caused by provision of weak brick pillars of 1.5 x 1 brick, which failed in compression due to excess stress and could not stand the structural load, lapses in supervision related to non-filling of vertical joints, use of sub-standard class bricks and adoption of a weak type of bonding.

On consulting the Chief Engineer, Design and Consultancy Pune suggested in October 1995, knocking off the entire first floor and reconstruction of verandah portion by erecting new columns and certain strengthening measures to brick columns/walls and RCC slabs. The matter was under correspondence between the Chief Engineer (Air Force) Western Air Command and his higher authorities till September 1997 when he impressed upon Air Headquarters not to construct the accommodation for 98 airmen on the first floor, and to go ahead only with strengthening measures on ground floor. Accordingly, Air Headquarters revised the sanction restricting it to accommodation for 96 airmen and the civilian quarters in November 1998 at Rs 84 lakh.

**Additional expenditure of Rs 22.42 lakh caused due to demolation of unfinished work**

Cost of demolishing the unfinished first floor, strengthening measures and extra cost on already provided foundation catering for double storey worked out to Rs 22.42 lakh.

**Delays in completing civilian quarters caused loss of revenue of Rs 7.04 lakh**

The Chief Engineer got the rectification and strengthening measures work completed through the same contractor by February 1999. Delays in carrying out the rectification and strengthening work resulted in belated completion of the 13 civilian quarters. This resulted in loss of revenue of Rs 7.04 lakh. Cost of construction of remaining accommodation for 98 airmen at another site in double storey was assessed at Rs 32.48 lakh as against proportionate cost of Rs 19.63 lakh as per the existing contract.

The matter was referred to the Ministry in July 2000; their reply was awaited as of August 2000.

## 39. Provision of excess living accommodation due to faulty planning

**Faulty planning of living accommodation at a station led to construction of accommodation in excess of requirement at a cost of Rs 74.50 lakh.**

**A Chief Engineer concluded contract for married accommodation at a non family station**

Ministry in February 1991 sanctioned 24 quarters for officers of the rank of Major to Brigadier and 18 for Captains for Rs 2.64 crore at a station which was declared as a non-family station. The officers serving at non family stations were to be provided only with single accommodation. Instead of taking action for providing single accommodation, Chief Engineer concluded a contract for married accommodation in February 1992 for Rs 2.28 crore. The entire married accommodation with allied services was completed in April 1997.

**Accommodation was re-appropriated as single accommodation**

The 24 newly constructed and 12 existing married accommodation for officers of the rank of Major to Brigadier were re-appropriated as single accommodation between January 1998 and January 1999. With reference to

**Construction of 10 married accommodation could have been reduced to avoid idle investment**

the authorised area for married accommodation vis-à-vis single accommodation, the re-appropriated 36 quarters should have generated 72 units of single accommodation against the sanctioned strength of 51 officers of the rank of Major to Brigadier. The above would indicate that there was a scope for reducing 10 units of married accommodation for officers of the rank of Major to Brigadier to avoid idle investment.

Infantry Division stated in December 1999 that since capital works have a long gestation period it was decided to go ahead with the work rather than going back to the Government.

**Infantry Division sanctioned in 1996 one more married accommodation for Rs 19.62 lakh**

Separately HQ of the Infantry Division in October 1996 sanctioned one more married accommodation for an officer for Rs 17.53 lakh, later revised to Rs 19.62 lakh in November1997. This accommodation was completed in February 1999 under a contract concluded in September 1997.

Command HQ stated in January 2000 that this accommodation was provided inside Artillery Brigade Complex to Commander of the Artillery Brigade who was also the Station Commander to provide proper security. This contention is not tenable in that, keeping the security need of the Station Commander one unit of the married accommodation sanctioned by the Ministry in 1991 could have been located inside the Artillery Brigade Complex. Further by their own admission this married accommodation is also being re-appropriated as single accommodation for two Majors. Thus, further sanctioning of the married accommodation by the Infantry Division for Rs 19.62 lakh was not justified.

The matter was referred to the Ministry in August 2000; their reply was awaited as of October 2000.

## 40. Loss due to non-levy of departmental charges by Military Engineer Services

**Garrison Engineer failed to levy and recover departmental charges amounting Rs 65.38 lakh for works executed for other Central Government Ministries/Society**

Regulations provide that Military Engineer Services can render services to other Ministries of Central Government. Cost of such works include departmental charges at the prescribed rates.

Garrison Engineer[5] executed works for International Advanced Research Centre and Non-Ferrous Materials Technology Development Centre. While the former is under Department of Science and Technology, the latter is a registered society functioning on commercial terms. Non-Ferrous Materials

[5] Garrison Engineer (I) (R&D) Kanchanbagh

Technology Development Centre was sponsored by four Public Sector Undertakings including Defence Metallurgical Research Laboratory who were party to the Memorandum of Understanding in setting up this society. Garrison Engineer did not levy departmental charges on works services executed for the organisations in contravention of the regulatory provisions for the works executed. The value of the executed works was Rs 3.96 crore during the period 1995 to 1999 for these organisations, and Rs 65.38 lakh towards departmental charges should have been levied.

**GE(R&D) Kanchanbagh failed to levy and collect departmental charges amounting to Rs 65.38 lakh**

To an audit observation, Garrison Engineer replied in May 1999 that it was deemed inappropriate to levy departmental charges on "sister concerns", and that the estimates for the works were approved by the Chief Engineer. The contention was not tenable as it was in violation of the regulatory provisions.

The matter was referred to the Ministry in June 2000; their reply was awaited as of October 2000.

## 41. Undue benefit to a contractor

**Chief Engineer Headquarters 31 Sub Area failed to utilise available surplus steel worth Rs 15.54 lakh and also issued stone boulders available with the department at rates lower than the market rates resulting in undue benefit of Rs 11.05 lakh to a contractor.**

**Chief Engineer omitted to include steel and stone as departmental supply in a contract**

Chief Engineer Headquarters 31 Sub Area concluded a contract in December 1997 for provision of residential accommodation at a station. Though 109.039 tonne of structural steel valued at Rs 15.54 lakh and 20000 cubic meters of stone boulders were available with the department, the Chief Engineer did not include these items in schedule 'B' of the contract for issue to the contractor.

**Contractor requested the department in June 1998 for issuing the stone boulders**

While the work was in progress, the contractor requested the department on 06 June 1998 to issue stone boulders if available with the department at the scheduled rate of Rs 200 per cubic meter. This rate was for issue of stone/boulders obtained from excavation. The Commander Works Engineer on 08 June 1998 recommended issue of stone boulders at the rate of Rs 200 per cubic meter against the market rate of Rs 498 per cubic metre as per bazar supply contract.

**Irregular fixing of issue rate by Chief Engineer resulted in unintended benefit of Rs 11.05 lakh to contractor**

Though stores not covered under the schedule 'B' of the contract when subsequently issued are to be charged at highest of the stock book rate or market rate or rates deduced from the contract rate, the Chief Engineer amended the contract on 19 June 1998 providing for issue of the stone boulders at Rs 200 per cubic meter stipulating deduction of 50 *per cent* for voids in stack measurement. The quantity issued so far was 3709.35 cubic meters, involving unintended benefit of Rs 11.05 lakh to the contractor.

**Steel items worth Rs 15.54 lakh was lost sight of from inclusion in contract**

The Chief Engineer Northern Command stated in May 1999 that the steel sections could not be included in the contract as the officials entrusted with planning and framing of the contract were not aware of the surplus availability. This would indicate that proper control on the inventory holding was not exercised.

The Ministry in their reply of October 2000 accepted the facts regarding non-utilisation of steel. As regard issue of boulders at rate less than the market rate, the Ministry contended that audit did not take into account the contractor's percentage and cost of transportation while arriving at the market rate. This contention of the Ministry is not tenable, as the stores not included in schedule 'B' of the contract are to be charged at highest of stock book rate or market rate which include profits and transportation.

# CHAPTER V : RESEARCH AND DEVELOPMENT ORGANISATION

## Review

## 42. Staff Projects completed by Vehicle Research and Development Establishment

### *42.1 Introduction*

DRDO[1] aims to provide scientific and technical support to the Armed Forces through design and development of new and sophisticated equipments to meet operational requirements. A significant objective is the establishment of capability for indigenous production of equipments, which hitherto were imported. The research, design and development activities of the organisation extends to an impressive array ranging from Armaments, Electronics, Aeronautics, Structural/ Civil Engineering, Vehicles, General Stores to Basic Science.

Projects undertaken by DRDO are classified as :

(i) staff projects undertaken directly at the behest of Service HQrs for meeting their requirement, (ii) R&D projects or general competence build up projects in a given area of research. Staff projects are user oriented and related to the development and delivery of a product with a qualitative requirement specified by the user services. They are, thus, undertaken at the instance of the Services to meet their requirements as stated in formal documents like the General Staff Policy Statement, Qualitative Requirement, Military Characteristics, Operational Requirements and communicated to the Research and Development Organization. Therefore, for a staff project to be deemed successful it should satisfactorily meet the user's demand within the stipulated time frame and at reasonable cost.

VRDE[2] is the only DRDO Establishment in the country responsible for carrying out Research & Development activity on Wheeled and Tracked Vehicles. The principal user of VRDE projects is the Army. During the period 1988 to 1998, 18 staff projects were completed at a total cost of Rs 9.47 crore. Out of these only four projects constituting 22 *per cent* went into bulk production.

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[1] Defence Research and Development Organisation

[2] Vehicle Research & Development Establishment

### *42.2 Budget and Expenditure*

Over the past 7 years from (1993-94 to 1999-2000), the sanctioned budget of VRDE has increased from Rs 8.43 crore to Rs 17.58 crore. Pay and allowances accounted for between 26 to 49 *per cent*, of the actual expenditure incurred as detailed below:

**(Rs in crore)**

| Particulars | 1993-94 | 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|---|---|
| Sanctioned Budget | 8.43 | 13.87 | 12.13 | 12.69 | 21.83 | 16.29 | 17.58 |
| Total Expenditure | 8.22 | 13.45 | 11.74 | 12.02 | 21.58 | 15.57 | 17.29 |
| Expenditure on Pay and Allowances | 3.18 | 3.52 | 4.09 | 4.52 | 5.89 | 7.18 | 8.43 |
| Percentage of Pay and Allowances | 38.68 | 26.17 | 34.83 | 37.60 | 27.29 | 46.11 | 48.76 |

The total staff strength varied from 627 to 746 during the period from March 1994 to March 2000. During the same period the Scientists strength varied from 60 to 71 as given below:

| Year ending | Total Staff | No. of Scientists |
|---|---|---|
| March 1994 | 746 | 68 |
| March 1995 | 721 | 71 |
| March 1996 | 702 | 60 |
| March 1997 | 694 | 60 |
| March 1998 | 627 | 66 |
| March 1999 | 685 | 67 |
| March 2000 | 686 | 66 |

On an average for each Scientist about 11 non-scientists were posted.

### *42.3 Procedure for initiating a staff project*

The requirement for a system/product is initiated by the users – the Army, Navy or Air Force; and is elaborated by Army in the form of a GSQR[3]. On receipt of the GSQR from user and after analyzing the parameters indicated therein, the concerned DRDO establishment prepares a Qualitative Requirement Feasibility Report for sanction of the Project, incorporating parameters of the equipment/store to be developed, the number of prototypes required to clear the design and the time schedule by which the prototypes are required by the DRDO. The Feasibility Report is forwarded to the DGOF[4] and DRDO HQ. DGOF then confirms their ability to supply the prototypes as per the time schedule and also indicates the estimated cost of manufacturing the prototypes. Thereafter the project is sanctioned.

[3] General Staff Qualitative Requirement

[4] Director General Ordnance Factories (DGOF)

### *42.4 Scope of audit*

The scope of audit was confined to Staff Projects completed by Vehicle Research Development Establishment, during the period April 1988 to March 1998. The objective was to review the projects completed, their status of adoption by the users and to analyse reasons for not bulk producing the successful ones.

### *42.5 Highlights*

- **18 projects were completed by VRDE during 1988-98, of which 4 projects representing a mere 22 *per cent* went into bulk production. The poor success rate of Staff Projects is attributable to reassessment of requirement and redefinition of design parameters by the user, phasing out of complementary equipment and adverse indigenous cost vis-à-vis import cost.**

  **(Para 42.1 refers)**

- **Vehicle Research & Development Establishment continued with developmental activities on two specialist role vehicles, although the users had advised closure of these projects as requirement of these vehicles had ceased to exist. The avoidable expenditure on continuance of these projects was Rs 5.25 crore.**

  **(Para 42.6 refers)**

- **Vehicle Research & Development Establishment at the instance of the users, undertook and developed three specialist role vehicles at a total cost of Rs 1.90 crore. However, even 10 years after development, users did not place any order for their bulk production.**

  **(Para 42.7 refers)**

- **A 'house type Operation Theatre on Wheels' was developed in 1989 at a cost of Rs 21.35 lakh, as the Army rejected the existing concept of "containerization" of Operation Theatre on Wheels. A decade later, the project has not been bulk produced as in 1999, the Army retracted and sought a container based Operation Theatre.**

  **(Para 42.8.1 refers)**

- **Due to indecision on the part of Army authorities in selecting a chassis for mounting the twin gun the expenditure amounting to Rs 19.63 lakh has become nugatory.**

  **(Para 42.8.2 refers)**

- Three projects valuing Rs 15.22 lakh were undertaken and completed, utilizing a chassis that had been under consideration for replacement nearly two decades ago in 1971. These projects were ultimately not bulk produced as the adopted chassis were to be phased out.

(Para 42.9 refers)

### 42.6 Continued R&D efforts despite reassessment of requirement by the user

Vehicle Research & Development Establishment continued with developmental activities in respect of two projects, despite the Users requirement for these vehicles having ceased. The expenditure incurred on such developmental activities was Rs 5.25 crore.

#### 42.6.1 Half Track Multirole Vehicle

Paragraph 76 of Report No 8 of 1996 of the Comptroller and Auditor General of India had highlighted infructuous expenditure on the design and development of half-track multirole vehicle. In August 1983, Ministry sanctioned a project for Design and Development of HTMV[5] at a cost of Rs 51.41 lakh. Consequent to user trials in 1987 Army suggested improvements in design. A second project was sanctioned in October 1988, at a cost of Rs 1.42 crore, to carry out improvements as suggested by the Army in the HTMV design. While the work of modification and finalisation of the design of Half Track Multirole Vehicle was in progress, the Army indicated in March 1989 their preference for the imported Kolos Tatra vehicles as being more cost effective and user friendly. VRDE, however, persisted with their efforts to overcome the shortcomings of Half Track Multirole Vehicle but failed to satisfy the Army. After evaluation, Army decided to terminate the project in July 1992. The second project was closed two years later in January 1994. An expenditure of Rs 39.44 lakh was incurred on the first project and of Rs 71.94 lakh on the second. Six months after the second project had been sanctioned, the user had indicated that the HTMV was not required. Had DRDO abandoned the project in March 1989 when the Army indicated their dissatisfaction with the Half Track Multirole Vehicle prototype and showed a preference for a more cost effective alternative, the expenditure of Rs 71.94 lakh on the project could have been avoided.

R&D HQ stated in November 2000, that the expenditure of Rs 71.94 lakh could not be treated as loss since Half Track Technology had been established which can be used for future projects. This contention was not tenable as the project was not intended for technology development.

[5] Half Track Multirole Vehicle

### *42.6.2 Design and development of Light Tank*

Paragraph 56 of the Report of the Comptroller and Auditor General of India, Union Government, Defence Services (Army and Ordnance Factories) for the year ended 31st March 1989, mentioned infructuous expenditure of Rs 26.79 lakh incurred in modifying BMP[6] vehicle as Light Tank with 90 mm turret, without properly assessing availability of BMP chassis for production. It was also stated that the expenditure being incurred on development of Light Tank with 105 mm turret would also prove infructuous as the Army did not have any requirement for the Light Tank either with 90mm or 105mm turret. Despite this DRDO continued with the project for another seven years and closed it in August 1996 after successful trails, incurring a total expenditure of Rs 4.53 crore.

Based on a GSQR projected by the Army in 1976, a project for 'Design and Development of Light Tank on BMP-I' was sanctioned in 1983 at an estimated cost of Rs 2.54 crore. In July 1985, the Army reassessed their requirement and held that no light tank on BMP was necessary. Nevertheless, the development of light tank continued. Furthermore, notwithstanding their earlier stand, the Army continued to be associated with the project. Based on suggestions of Army authorities, in October 1988, CVRDE[7] amended the contract agreement, replacing 90mm turrets with 105mm turrets.

In April 1992, the project was transferred to VRDE, Ahmednagar from CVRDE. In May 1993, eight years after they had first so stated, the Army categorically reiterated that there was no requirement for light tank. In spite of SA to RM[8] also recommending closure of the project in February 1994, the Establishment went ahead with firing trials for another two years. Finally, in August 1996, 10 years after the original PDC[9] and having incurred an expenditure of Rs 4.53 crore including foreign exchange of Rs 2.91 crore, the project was closed.

R&D HQ stated in November 2000 that cancellation of the contract for 105 mm turret was found not economical and hence the project was continued to take it to a logical conclusion. However the fact remained that R&D efforts and money was spent on an equipment the need for which had ceased to exist.

### *42.7 Development of Vehicles not really required by users*

Three specialist vehicles developed at the instance of users, at a cost of Rs 1.90 crore, were not produced due to inexplicable reluctance of the user to do so, despite the project and user trials being satisfactorily completed. As staff projects are funded from the DRDO budget, there is no financial

[6] BOEVAYA MASHINA PEKHOTA (Russian)
[7] Combat Vehicle Research and Development Establishment
[8] Scientific Adviser to Raksha Mantri
[9] Probable Date of Completion

commitment of the user. This enables them to arbitrarily not follow through completed staff projects to their logical conclusion, resulting in huge wastage of resources. Details of projects that met this fate are as under:

### *42.7.1 Design and development of infantry tactical vehicle*

Army required a vehicle with high cross-country mobility that could serve as a weapon carrier in an increasingly mechanized battlefield environment. Based on a requirement projected by the Army, a project for development of Infantry Tactical Vehicle was sanctioned in September 1987 at a cost of Rs 73.10 lakh. The Army had projected a requirement of 3000 such vehicles. The project was scheduled to be completed by September 1991. DRDO, in March 1991, sought extension up to September 1992, which was not agreed to. Army in June 1991, without assigning any reason, advised DRDO to foreclose the project. DRDO, however, sought extension of the PDC, contending that delay was due to exogenous reasons, including delayed receipt of imported equipment. On DRDO's insistence, Army agreed for continuance of the project and granted extension up to April 1992.

DRDO, however, was unable to adhere to the revised time schedule due to the delay in importing CV shaft and was able to offer the prototype for user trials only by end of August 1992. This was not acceptable to the user, who in early August 1992, informed DRDO that in view of the delay, the project should be closed.

Therefore, after subjecting the vehicle to technical trials during January – June 1992 but without conduct of users trials the project was closed by DRDO, having incurred an expenditure of Rs 45.88 lakh of which the sanctioned foreign exchange was Rs 22 lakh. The case reveals that having projected a new class of vehicle, Army on a flimsy ground of time over-run of 1 year against the original PDC of 4 years decided to close the project without even conducting user trials.

### *42.7.2 Design and development of truck mounted cranes full slew - medium and light*

As a long term policy, light and medium cranes were to be procured for use by the Army, Navy and Air Force to meet their static and operational roles like loading and unloading of Defence equipments and stores and during bridging/ earthmoving operations. Directorate of Standardisation, formulated a Joint Services Policy Statement and a Joint Services Qualitative Requirement for truck mounted crane full slew – medium during 1981. In view of the long materialization period for 6x6 chassis, it was decided, as a short term measure, to mount the crane on 6x4 chassis for trial evaluation.

Accordingly, in October 1982, the Ministry sanctioned Rs 75.50 lakh for development of 3 truck mounted cranes. A fourth crane was also to be developed under sanction from Army Budget for Rs 20.24 lakh. The truck mounted cranes developed were trial evaluated by Army and Air Force units between June 1984 and September 1987 and were recommended for introduction into service, even though the 6X4 chassis used for mounting the crane exhibited limited cross country/sand mobility in the user trials. The project was closed in June 1989 with an expenditure of Rs 92 lakh. In November 1989, the Army, too, endorsed the use of 6x4 chassis for mounting the crane. However, eleven years after the project was completed, the users were yet to take a decision regarding production.

Similarly, based on the Joint Services Policy Statement of 1981, another Joint Services Qualitative Requirement was formulated for truck mounted crane full slew – light during 1981. Accordingly, in October 1982, the Ministry sanctioned Rs 42.50 lakh for development of 3 truck mounted cranes. A fourth crane was to be developed under Army budget for Rs 11.06 lakh.

The truck mounted cranes developed were trial evaluated by Army and Air Force units between October 1985 and March 1989; and were recommended for introduction into service. The project was closed in December 1989 with an expenditure of Rs 52.54 lakh. No orders have, however, been placed by the Users for bulk production.

The absence of orders for bulk production for the two types of cranes rendered the development cost of Rs 1.44 crore infructuous.

R&D HQ while accepting the facts stated in November 2000 that VRDE acquired sufficient know-how expertise and established industry base. They added that expertise was used for development of crane for another project which went into production. It was not clear as to why users did not place any orders for cranes developed at their instance.

### *42.8 Design parameters redefined by the user*

Indecision regarding design parameters resulting in frequent changes, adversely impinges on developmental activity. Although project implementation should have a certain degree of flexibility, enabling incorporation of the latest technological advancements, significant changes in design parameters substantially impact time and cost projections and can even imply reversal of implementation decisions. The following projects illustrate this.

#### *42.8.1 Development of mobile operation theatre complex on wheels*

Despite satisfactory development of the vehicle intended for carrying out emergency medical operations in forward areas, the servicemen at the front continue to be deprived of this critical facility. Army HQ's arbitrary change in basic specifications led to the already developed complex not being utilised; and the developmental expenditure of Rs 21.35 lakh rendered in vain.

Army in August 1982 formulated a GSQR for the development of a mobile operation theatre complex on wheels. This was to be used for carrying out emergency operations on war casualties in the minimum possible time. The mobile operation theatre complex on wheels was required to be provided on a house type body. Ministry accorded sanction in June 1983 for development of one mobile operation theatre complex on wheels at a cost of Rs 17.10 lakh for completion by June 1987.

The mobile operation theatre complex on wheels was to comprise of operation theatre, preoperative room, recovery room and sterilization/store room to be mounted on separate 3 ton shaktiman chassis. The operation theatre complex on wheels was also to have a generator trailor. If successfully developed and found suitable, the requirement of the users was one operation theatre complex on wheels for each Infantry/Armoured division, Independent Armoured/ Infantry Brigade. After completion of successful user trials in June/October 1987 and confirmatory user trials in March/April 1989, the project was closed in June 1989 after incurring an expenditure of Rs 21.35 lakh. Army recommended in November 1989 introduction of Operation Theatre Complex on Wheels into service. The Operation Theatre Complex on Wheels was utilised in Cambodia in 1992 as part of the UN[10] mission and found satisfactory. However, the production of the Operation Theatre Complex on Wheels was not undertaken, as at this juncture, the user wanted to drastically alter their requirement - opting for a container based Operation Theatre rather than the already developed house type one. Though the concept of container type shelters for specialist roles was well established and made use of in other countries, in the early eighties, and VRDE was also ready to undertake the development in 1982 itself, Army insisted with the development on house type body. In September 1999, Army HQ proposed import of two sets of containerised operation theatres and ward on wheels at a cost of Rs 8 crore each. DRDO strongly opposed this; and it was ultimately agreed to place order on DRDO for development/ manufacture of two sets of containerised operation theatre and 3 mobile wards within one year at a cost of Rs 4 crore per set. The total requirement as assessed by the Army was 17 sets.

Now, 12 years after the original PDC, a new QR has been framed in December 1999, and a project sanctioned in January 2000, for developing two sets of container based operation theatres with wards on wheels at a total cost of Rs 8 crore. In the interim, approval has been accorded to import one operation theatre complex on wheels.

Thus, despite satisfactory development of the vehicle intended for carrying out emergency medical operations in forward areas which was also successfully deployed with the peace keeping force in Somalia, non production of the vehicle resulted in absence of the facilities for troops in forward areas. The user's arbitrary change in basic specifications led to developed complex not

[10] United Nations

being utilised; and the developmental expenditure of Rs 21.35 lakh was in vain.

Had the "Container" concept been adopted by the Army in 1982 itself, wasteful development expenditure and effort could have been avoided and this vital medical facility made available to the troops. R&D HQ agreed with audit comments.

### *42.8.2 Mounting of ZSU[11]-23-2 23 mm Twin Gun on Tata 4 Ton 4x4 chassis*

23 mm Twin Gun was available with the Army in the towed version. However, to match the mobility of the mechanized forces for which this gun was to provide protection, a need was felt by the Army in 1987 to convert the gun into a self propelled version. Accordingly, Army HQ asked DRDO to carry out a feasibility study of mounting the Twin Gun on a wheeled chassis. Ministry sanctioned a project in June 1990 for development of 2 prototypes at a cost of Rs 14 lakh with a PDC of 24 months. After mounting the gun on the TATA 4 Ton 4x4 chassis, trials were conducted in February 1992. An AD Regiment[12] carried out user trials during September/October 1992. In the meanwhile, the project was closed in May 1992 with an expenditure of Rs 13.68 lakh. In July 1993 Army HQ asked DRDO to make available 2 prototypes for retrials after incorporating certain modifications. The modifications were carried out and prototypes were ready for retrials. However, in December 1993, Army HQ decided not to proceed with the user trials of the modified prototypes as TATA 4x4 Ton chassis were not readily available and were not likely to be procured in view of the proposed induction of the Stallion MK-II 5/7.5 ton chassis. It was, hence, decided to mount the Twin Gun on the Stallion MK-II 5/7.5 Ton chassis. Based on the request from Army HQ in July 1995, VRDE completed the feasibility study of mounting the twin gun on the Stallion MK-II 5/7.5 Ton 4x4 chassis in September 1995. On approval of the proposal by Army HQ, Ministry sanctioned a project for mounting of Twin Gun on Stallion 5/7.5 Ton 4x4 chassis in March 1996 at a total cost of Rs 4 lakh with PDC of 12 months after positioning gun and vehicle at VRDE. Subsequently and despite their feasibility study, VRDE in January 1997, held that the Stallion MK-II 5/7.5 ton 4X4 chassis was not satisfactory. VRDE, however, continued with the project and handed over the prototypes in August 1997 for user trial. The project was closed in July 1997 with an expenditure of Rs 3.78 lakh.

However, the Army did not recommend its introduction into service. On completion of the project, the user reconsidered the design parameters and opined that mounting of the twin guns be considered on a heavy mobility vehicle. Thereupon, VRDE incurred Rs 2.17 lakh to restore the Stallion vehicles to their original condition. Thus, although the necessity of a

[11] ZSU – A foreign name
[12] Air Defence

self propelled twin gun was acutely felt as early as 1987, this remained unimplemented. Despite successful trial of the Gun mounted on TATA 4 Ton 4x4 chassis and the assurance given by the Deputy Director General Weapons & Equipments (Armaments) in November 1993 for making available the requirement of 72 chassis by withdrawing from the Commands, the gun continues to be towed.

Thus, continued indecision by the Army in identifying a suitable vehicle for mounting the twin gun, has resulted in imprudent expenditure of Rs 19.63 lakh.

R&D HQ stated in November 2000 that expertise was now being handed over to a Base Workshop for mounting ZU Gun on 6x6 chassis. This establishes unsuitability of 4x4 chassis used for development.

### *42.9 Development of specialist role vehicles on chassis under replacement*

While developing any store, the life of the complementary equipment to be used must be assessed. Difference in life span, where part of the store is at inception stage and the other is approaching extinction, complicates implementation and future production of the developed store. In 1971 the Army decided to replace the then existing class of vehicles viz. 250 kg, 1 Ton and 3 Ton vehicles with futuristic vehicles viz. ½ ton, 2.5 ton and 5/7.5 ton respectively. Army recommended introduction of these futuristic vehicles only in April 1993. Despite seeking replacement of the existing vehicles, the Army still projected development of certain specialist role vehicles through modifications on existing chassis. The vehicles so developed, however, were not bulk produced as the existing chassis were to be replaced by new vehicles. Thus, the expenditure of Rs 15.22 lakh, and the efforts on modifying these vehicles was rendered wasteful. The cases are discussed below:

#### *42.9.1 Development of kitchen lorry*

To meet the requirement of troops under field conditions and to serve hot and hygienic meals during mobile operations, Army projected a requirement of 3333 kitchen lorries vide their GSQR of 1983. Accordingly, Directorate of Engineering, R&D Organisation sanctioned in December 1983 development of Kitchen Lorry on Shaktiman 3 Ton chassis. VRDE completed development work in May 1986; and a Army Unit carried out user trials in March/April 1987. DRDO carried out the modifications suggested by users and offered prototypes for retrials in March 1989. The Kitchen Lorry, thus developed, was recommended for introduction into service by the trial units and the project was closed by VRDE in June 1989, having incurred an expenditure of Rs 6.41 lakh. However, in August 1989, Army intimated DRDO that the design of Kitchen Lorry be retained for incorporation in the futuristic 5/7.5 Ton vehicle or the container when introduced at a later date.

The decision to develop the kitchen lorry on a chassis that was to be replaced was injudicious. Apart from wasteful expenditure of Rs 6.41 lakh on development work, the troops have not been provided hot and hygienic meals during mobile operations and in field conditions for the last 11 years.

R&D HQ agreed with the audit comments in November 2000.

### *42.9.2 Development of aluminium cab and body on shaktiman chassis*

VRDE undertook a staff project at the behest of the Army for fabrication of aluminium body and cab for Shaktiman 3 ton vehicle in place of the existing steel body. This was intended to decrease weight, resulting in consequent fuel economy or enabling increase in payload capacity by using a light weight material viz. aluminium. Accordingly, Directorate of Engineering, DRDO sanctioned a project in August 1984 for design and development of five Aluminium cab and body at a cost of Rs 9.75 lakh. Two prototypes developed by VRDE were fielded for user trials. The user unit located in western region did not recommend its introduction due to high conduction of heat by aluminium material in the desert region. The second trial unit, located in the north-eastern region, recommended in March 1989 its introduction into service subject to certain modifications. However, even before the receipt of the recommendation from the trial unit, a Panel meeting decided in November 1988 not to progress the project further as the basic Shaktiman chassis was of outdated technology and new vehicles were likely to be introduced. The project was closed in September 1988 with an expenditure of Rs 7.13 lakh. The Army's decision is arbitrary, as 13 years prior to sanction of the project, it was known that the Shaktiman chassis was to be replaced by futuristic 5/7.5 ton chassis. Further, the non-incorporation of the successfully developed aluminium cab and body in the existing fleet of Shaktiman vehicles resulted in the vehicles not achieving the established fuel efficiency or increased payload, all these years.

R&D HQ agreed with the audit comments.

### *42.9.3 Provision of cab heating units in Shaktiman, Nissan and Jonga vehicles for troops in cold region and high altitude areas*

In May 1988 VRDE sanctioned a project at a cost of Rs 2 lakh for fabrication of cab heater devices in Shaktiman, Nissan and Jonga vehicles for use in high altitude areas during winter season. Of the 42 kits fabricated, 39 were fitted on the vehicles in November 1988. After conduct of trials the users recommended for introduction of the kits into service. VRDE closed the project in June 1989 with an expenditure of Rs 1.68 lakh. However, in view of the futuristic 'B' vehicles policy, these vehicles were required to be phased out and as such Army decided in November 1992 that the cab heating units would not be introduced into service.

As the installation of the cab heating system on the Shaktiman, Nissan and Jonga vehicles would provide comfort to the drivers/co-drivers deployed in the high altitude area and its function is independent of the chassis, the decision by the Army not to use the units lacked rationale.

### *42.10 Conclusion*

Thus, out of the 18 projects completed by VRDE during 1988 to 1998, only 4 went into bulk production. Developmental expenditure of Rs 8.12 crore incurred on the other 14 projects was infructuous. Moreover, the cost of this exercise has to be gauged not only in monetary terms but also in terms of opportunity cost of underutilized manpower. It is indeed unfortunate that the relatively uncomplicated task of fitting and modifying a vehicle to serve as a Kitchen was entrusted to a superior research and development institution like the VRDE. As staff projects are funded from the DRDO budget, there is no financial commitment of the user. Consequently, the user has on occasion not sought bulk production even where the project and user trials were satisfactorily completed. The full slew light truck mounted cranes is illustrative. Where the user has a budgetary commitment, the probability of putting forth ill conceived GSQR as well as vacillating design parameters, resulting in huge wastage of resources, diminish.

The gloomy picture, of staff projects not culminating in bulk production and thus, defeating their very purpose, underscores superficial analysis at project conception stage, arbitrariness in decision making at all levels and a penchant for after thoughts. For Staff Projects to culminate in bulk production, the user and the developer must work in tandem at every stage – inception to final implementation.

R&D HQ agreed that there should be more interactive approach between DRDO and Services to cut-down the expenditure and time for development and production.

# CHAPTER VI : BORDER ROADS ORGANISATION

## 43. Infructuous expenditure on irregular execution of a work

**A Task Force Commander ordered execution of unsanctioned work and left it incomplete entailing an infructuous expenditure of Rs 5.02 crore on rectification of damages.**

Pasakha-Monitor road measuring 38.88 Kms forms part of infrastructure road for Tala Hydel project in Bhutan. Construction of this road was included in Border Roads Development Board programme as agency work on behalf of Ministry of External Affairs.

**MEA sanctioned construction of road from one side**

**Commander BRTF commenced work in November 1995 from both sides of road**

Ministry of External Affairs sanctioned in February 1995 construction of part of this road from Km. 0 to Km 10 at Rs 9.25 crore and released Rs 79.98 lakh for construction from Pasakha side. Commander of a Border Road Task Force, however, ordered commencement of work from both Pasakha and Monitor sides. The execution of work from both ends commenced in November 1995 out of available funds.

**The work was suspended in May 1997 and remained unattended and got damaged**

While the value of work executed in both the sectors up to May 1997 was Rs 11.13 crore, further execution was suspended due to non-availability of funds. The incomplete work was left unattended without any maintenance and got damaged. New cut formation had been breached/washed away at many places as even minimum permanent works were not carried out to retain the formation.

**MEA sanctioned entire work for Rs 54.32 crore inclusive of Rs 5.02 crore for rectification of work**

Ministry of External Affairs accorded cost acceptance of entire project at revised cost of Rs 54.32 crore in June 1999 inclusive of rectification works of Rs 5.02 core and cost escalation of Rs 2.62 crore, and released funds of Rs 13.62 crore for the year 1999-2000. The work was resumed on 10 November 1999. The work was in progress as of July 2000.

The process of road construction involves formation cutting, surfacing, soling, metalling and black topping stages. However, with the funds available for construction of sector-I road, the work in both the sectors up to formation cutting and surfacing stages only was executed and it being unfinished work, got damaged.

Thus, taking up execution of work from both ends of proposed road by diverting the funds from sanctioned portion entailed infructous expenditure of Rs 5.02 crore on rectification of damages caused due to suspension of work and its non-maintenance.

The matter was referred to the Ministry in August 2000; their reply was awaited as of October 2000.

## 44. Non-utilisation of buildings constructed at a cost of Rs 4.80 crore

**Construction of permanent accommodation for a unit at Chandigarh led to non-utilisation of assets worth Rs 4.80 crore on moving out of the unit.**

Border Road Development Board sanctioned permanent accommodation for 38 Border Road Task Force including electrification, etc. at Chandigarh between August 1990 and April 1995 on the plea that the unit would be stationed permanently at Chandigarh.

**Accommodation constructed for a non static unit at Chandigarh lying surplus due to move of the unit**

The accommodation constructed at Chandigarh at a cost of Rs 4.80 crore including the cost of land, in 1994-95 became surplus since the unit for which it was constructed had moved to Manali in June 1996 to meet its strategic functions.

**Expenditure on watch and ward of surplus accommodation was Rs 1.21 crore**

For watch and ward of the surplus accommodation at Chandigarh, personnel from a Pioneer Company were deployed in July 1996 although pioneers are supposed to be engaged on road construction activities. Pay and Allowances paid to these personnel of the Pioneer Company during July 1996 to July 2000 worked out to Rs 1.21 crore.

Director General Border Roads accepted the facts in October 2000 and indicated that permanent accommodation constructed for 38 Border Road Task Force was an isolated case.

It is recommended that Ministry may explore utilisation of this surplus accommodation by Army or other users to avoid recurring expenditure on watch and ward

The matter was referred to the Ministry in August 2000; their reply was awaited as of October 2000.

## 45. Injudicious expenditure in constructing temporary bridges

**Delay in sanctioning construction of a permanent bridge across a Nallah by Director General Border Roads entailed futile make-shift arrangements at Rs 1.07 crore.**

Director General Border Roads failed to decide upon a proposal to provide a permanent bridge on Gangtok-Chungthang road, the only axis in the area connecting Mangan. Make-shift arrangements repeatedly failed, resulting in expenditure of Rs 1.07 crore as against an estimated expenditure of Rs 1.00 crore for a permanent bridge.

**Existing bridge collapsed in October 1991**

A Bailey Bridge of 140 feet span existed at Mayangchu Nallah at 78.5 km of Gangtok-Chungthang road. The bridge was buried due to land slides in October 1991 and the road was closed for traffic. To restore the line of communication forthwith, Chief Engineer (Project) Swastik provided a 'ford'[1]. This arrangement was damaged during floods.

**Geological Survey in May 1993 recommended change in location of left abutment**

On the request of the Chief Engineer, Geological Survey of India surveyed the site in April 1993 and recommended in May 1993 change in location of left abutment and provision of rock bolting. Thereafter in July 1993, the Chief Engineer mooted a proposal for construction of a permanent bridge of 60 metre, estimating the cost at Rs 1.00 crore.

**DGBR held back the proposal for seven years**

**CE constructed temporary bridges**

**Two temporary bridges also collapsed**

The Director General Border Roads held back the proposal for about seven years as of February 2000 for reasons like non-availability of suitable firm to undertake the job, change of ground conditions, etc. On the other hand, the Director General Border Roads had allowed the Chief Engineer to construct temporary bridges of 80 ft span and 190 ft span at Rs 15.55 lakh and Rs 91.61 lakh respectively aggregating Rs 1.07 crore during June 1994 – September 1996. These bridges collapsed within a period of eight and thirteen months from the date of construction due to heavy rains and land slides. The second bridge had collapsed due to land slide in October 1997 and the road communication has been kept through by way of diversion by hill cutting. This arrangement could have been adopted after damage to the ford till a permanent bridge was constructed instead of constructing temporary bridges.

The matter was referred to the Ministry in July 2000; their reply was awaited as of October 2000.

[1] 'ford': a place where water may be crossed by wading

# CHAPTER VII : ORDNANCE FACTORY ORGANISATION

## 46. Performance of Ordnance Factory Organisation

### *46.1 Introduction*

Thirty nine Ordnance Factories, with a manpower of 1.46 lakh are engaged in production of arms, ammunition, equipment clothing, etc. primarily for the Armed Forces of the country. In order to utilise available spare capacities, Ordnance Factories have started manufacturing items for civil trade also, as a measure of diversification. At the apex level, Ordnance Factories are managed by a "Board" which is responsible for policy formulation, supervision and control. Director General of Ordnance Factories is the ex-officio chairman of the Ordnance Factory Board. He is assisted by nine Members/Addl Director General of Ordnance Factories, who are in charge of various staff and line functions.

The broad grouping of ordnance factories with reference to their production is as under:

| | **Divisions** | **No. of factories** |
|---|---|---|
| (i) | Materials and Components | 9 |
| (ii) | Weapons, Vehicles and Equipment | 10 |
| (iii) | Ammunition and Explosives | 10 |
| (iv) | Armoured Vehicle | 5 |
| (v) | Ordnance Equipment Factories | 5 |

On the basis of the product the factories are also classified as metallurgical (6), engineering (18), filling (5), chemical (4),and ordnance equipment (6).

### *46.2 Revenue expenditure*

The expenditure under revenue head during 1995-96 to 1999-2000 is given in the table below :

**(Rs in crores)**

| **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** |
|---|---|---|---|---|---|
| 1995-96 | 2775.90 | 2114.82 | 484.98 | 2599.80 | (+) 176.10 |
| 1996-97 | 3272.30 | 2416.22 | 433.06 | 2849.28 | (+) 423.02 |
| 1997-98 | 4050.47 | 2852.93 | 517.06 | 3369.99 | (+) 680.48 |
| 1998-99 | 4461.72 | 3854.92 | 598.59 | 4453.51 | (+) 8.21 |
| 1999-2000 | 4994.88 | 5124.43* | 700.61 | 5825.04 | (-) 830.16* |

*The difference between the figures of (-) Rs 126.57 crore indicated in the Appropriation Accounts of Defence Services for the year 1999-2000 and the net expenditure of (-) Rs 830.16 crore is due to :-

(i) Not taking into account the figure of Rs700.61 crore (on account of extra budgetory resources generated by Ordnance Factory Board viz. other receipts and recoveries) in the Appropriation Accounts.

(ii) Booking of Rs 2.98 crore on account of advertisement and publicity expenses not taken into account in the figures compiled by Controller General of Defence Accounts, New Delhi.

### *46.3 Analysis of performance of OFB*

#### *46.3.1 General*

In 1999-2000, turnover of Ordnance Factory Chanda was highest at Rs 849.04 crore with 89.71 *per cent* material components while that of Ordnance Equipment Factory Hazaratpur was the lowest at Rs 24.81 crore with material components at 62.56 per cent.

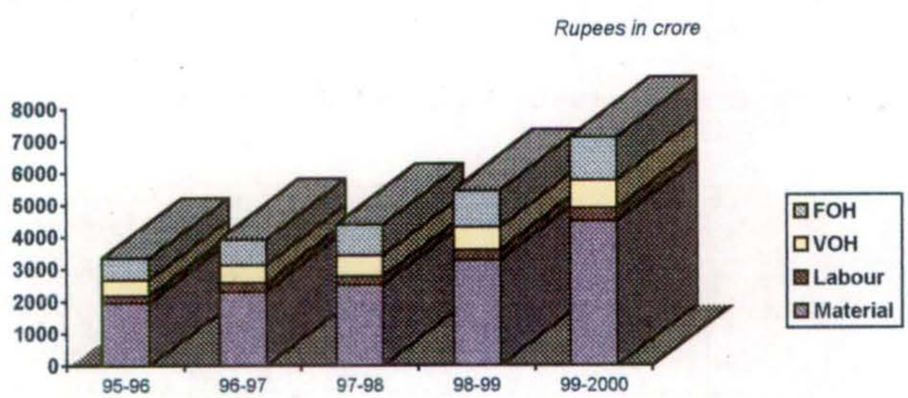
**46.3.1.1** The following table indicates element-wise cost of production during the last five years :

***(Rupees in crore)***

| Element | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|
| (a) Material | 1962.48<br>(58.77) | 2299.79<br>(58.53) | 2502.08<br>(57.07) | 3268.98<br>(60.08) | 4483.62<br>(63.27) |
| (b) Labour | 213.26<br>(6.39) | 272.48<br>(6.94) | 264.94<br>(6.04) | 319.93<br>(5.88) | 406.62<br>(5.74) |
| (c) Variable overhead | 488.78<br>(14.64) | 548.21<br>(13.95) | 651.47<br>(14.86) | 707.56<br>(13.00) | 877.03<br>(12.37) |
| (d) Fixed overhead charges | 674.46<br>(20.20) | 808.56<br>(20.58) | 966.09<br>(22.03) | 1144.66<br>(21.04) | 1319.22<br>(18.62) |
| Total | 3338.98 | 3929.04 | 4384.58 | 5441.13 | 7086.49 |

*Figures in bracket are percentages to the total cost of out turn.*

**Element wise break up of cost of production**




**46.3.1.2** The element of fixed and variable overheads in the total cost of production varied widely from factory to factory during 1999-2000 being

84.83 *per cent* in Grey Iron Foundry Jabalpur and 7.98 *per cent* in Ordnance Factory Chanda.

Details of five ordnance factories where the element of fixed and variable overheads in the total cost of production was highest are as under :

| | | |
|---|---|---|
| (i) | Grey Iron Foundry Jabalpur | 84.83 per cent |
| (ii) | Ordnance Factory Trichy | 75.72 per cent |
| (iii) | MTPF Ambernath | 75.32 per cent |
| (iv) | Ordnance Factory Bhandara | 70.10 per cent |
| (v) | Opto Electronic Factory Dehradun | 68.38 per cent |

Details of five ordnance factories where the element of fixed and variable overheads to the total cost of production was lowest are as under :

| | | | |
|---|---|---|---|
| (i) | Ordnance Factory Chanda | 7.98 per cent | |
| (ii) | Ordnance Factory Varangaon | 10.75 per cent | |
| (iii) | Ammunition Factory Kirkee | 16 per cent | |
| (iv) | Vehicle Factory Jabalpur | 16.83 per cent* | *in the case of Vehicle Factory Jabalpur, overheads were low due to its material component being high since VFJ was mainly assembling SKDs received from Telco/Ashok Leyland. |
| (v) | Ordnance Factory Khamaria | 18.12 per cent | |

### *46.3.2 Issue to users*

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

*(Rupees in crore)*

| | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|
| **Army** | 1690.97 | 1964.99 | 2427.02 | 3339.46 | 4637.33 |
| **Navy** | 37.41 | 46.56 | 60.39 | 62.49 | 85.24 |
| **Air Force** | 98.89 | 107.47 | 106.12 | 89.42 | 105.80 |
| **MES, Research and Development (Other Defence Department )** | 54.16 | 65.31 | 59.23 | 79.61 | 126.41 |
| **Total Defence** | 1881.43 | 2184.33 | 2652.76 | 3570.98 | 4954.78 |
| **Civil Trade** | 404.33 | 381.55 | 417.96 | 441.08 | 498.96 |

However, there were some variations between the amount reflected in the Annual Accounts of Ordnance Factories for the year 1998-99 and 1999-2000 and the amount booked in the All India Printed Compilation for March Final 15/99 and 15/2000 under issues to Services as shown below :

***(Rupees in crore)***

| | As per Annual Accounts of Ordnance Factories (1998-99) | As per All India Printed Compilation March Final 15/99 | As per Annual Accounts of Ordnance Factories (1999-2000) | As per All India Printed Compilation March Final 15/2000 |
|---|---|---|---|---|
| Army | 3339.46 | 3588.05 | 4637.33 | 4638.59 |
| Navy | 62.49 | 62.78 | 85.24 | 46.11 |
| Air Force | 89.42 | 108.97 | 105.80 | 82.36 |
| Other Defence Deptt. | 79.61 | 95.12 | 126.41 | 110.03 |
| Total : | 3570.98 | 3854.92 | 4954.78 | 4877.09 |

The Principal Controller of Accounts (Factories) has attributed the difference pertaining to the year 1998-99 to direct debit transaction indicated in the printed compilation not reflected in the Annual Accounts of Ordnance Factories. The direct debit as shown against Army Head represents the amount of instalment payment made to USSR in respect of CKDs received for BMP-II and T-72 tanks.

Even then, the difference in figures could not be completely reconciled and the variation in figures continued to persist.

Principal Controller of Accounts (Factories) also stated that an amount of Rs 4.01 crore was inadvertently booked against Army Head in respect of Ordnance Factory Chanda which enhanced the amount booked in All India Printed Compilation for March Final 1999. Action to regularise the excess booking of Rs 4.01 crore in the accounts of 1998-99 is yet to be taken.

*46.3.3 Production programme vis-à-vis progress*

Production of several items for which targets had been fixed by Ordnance Factory Board was behind schedule. Details showing the number of items for which the demands existed, number of items for which target was fixed and number of items manufactured and the number of items for which target was fixed but production of items was behind schedule during the last five years are furnished in the table below :

| Year | No of items for which demands existed | No of items for which target fixed | No. of items manufac-tured as per target | No. of items for which target fixed but production was behind schedule |
|---|---|---|---|---|
| 1995-96 | 323 | 289 | 220 | 69 |
| 1996-97 | 331 | 289 | 195 | 94 |
| 1997-98 | 284 | 234 | 161 | 73 |
| 1998-99 | 353 | 288 | 222 | 66 |
| 1999-2000 | 364 | 307 | 238 | 69 |

According to Ordnance Factory Board, for certain items, targets were modified at the last moment, for certain other items, either indents were not sufficiently available or they were under development/trials and for some other items though the production was completed in time, these could not be issued to the indentors due to various reasons like proof delays, delays in documentation etc.

*46.3.4 Capacity utilisation*

The capacity utilisation of a factory is assessed in terms of standard [Ξ]man-hours and machine hours. The tables below indicate the extent to which

the capacity had been utilised in terms of SMH and machine hours during the last five years:

(Capacity utilisation in terms of SMH)
(Unit in lakh hours)

| Year | Capacity in SMH | Utilisation in SMH |
|---|---|---|
| 1995-96 | 1914 | 1485 |
| 1996-97 | 1848 | 1558 |
| 1997-98 | 1650 | 1539 |
| 1998-99 | 1436 | 1639 |
| 1999-2000 | 1508 | 1839 |

(Capacity utilisation in terms of machine hours)
(Unit in lakh hours)

| Year | Machine hours available | Machine hours utilised |
|---|---|---|
| 1995-96 | 1235 | 947 |
| 1996-97 | 1271 | 936 |
| 1997-98 | 1341 | 972 |
| 1998-99 | 1266 | 959 |
| 1999-2000 | 1875 | 1368 |

*46.3.5 Export and civil trade*

The capacity created in ordnance factories was not being utilised to the full extent because of diminishing orders from Armed Forces. The Ministry decided in July 1986 to diversify and enter the civil market within the country and tap the export potential of ordnance factories to utilise their capacity.

*46.3.5.1 Export*

The following table shows the achievement with reference to target in export from 1995-96 to 1999-2000.

*[Ξ] Standard Manhour (SMH) means the average output expected of an average skilled worker as per the grades provided for in the estimates engaged in production activities in the ordnance factory for one hour. This does not include factors like setting time, fatigue allowance etc.*

| Year | Number of factories involved | Target (Rs in crore) | Achievement (Rs in crore) | Percentage of achievement |
|---|---|---|---|---|
| 1995-96 | 11 | 25.00 | 18.94 | 75.76 |
| 1996-97 | 8 | 25.00 | 3.22 | 12.88 |
| 1997-98 | 13 | 25.00 | 23.83 | 95.32 |
| 1998-99 | 13 | 25.00 | 13.46 | 53.84 |
| 1999-2000 | 11 | 8.5 | 6.19 | 72.82 |

The target originally fixed by Ordnance Factory Board for the year 1999-2000 was Rs 45 crore. This was subsequently revised to Rs 8.5 crore. Ordnance Factory Board stated that the lower target and achievement during 1999-2000 was due to capacity constraints in factories on account of enhanced targets of Army.

### 46.3.5.2 *Civil trade*

The turnover from civil trade other than supplies to Ministry of Home Affairs and State Government Police Departments during 1995-96 to 1999-2000 was as under:

| Year | Number of factories involved | Target (Rs in crore) | Achievement (Rs in crore) | Percentage of achievement |
|---|---|---|---|---|
| 1995-96 | 38 | 141.49 | 140.45 | 99.26 |
| 1996-97 | 38 | 180.00 | 137.96 | 76.64 |
| 1997-98 | 38 | 180.00 | 168.34 | 93.52 |
| 1998-99 | 38 | 185.00 | 178.74 | 96.67 |
| 1999-2000 | 38 | 206.49 | 206.38 | 99.95 |

The realisation from civil trade in absolute terms has been showing an upward trend except during 1996-97.

### 46.3.5.3 *Non-realisation of amount towards civil trade*

According to the directive issued by Ordnance Factory Board in June 1985, all civil indentors are required to pay in cash or through demand draft in advance with the order in full or irrevocable letter of credit. Ordnance Factory Board stated in August 2000 that sometimes items are issued on credit to private parties under special dispensation on commercial considerations and such credit facility is covered with instruments like Letter of Credit.

Rs 28.43 crore was outstanding against civil indentors for supply of different items to them as on 31 March .2000. Ordnance Factory Board stated in February 2001 that the amount of outstanding dues against the civil indentors up to 1998-99 had come down to Rs 11.99 crore as of 31 December 2000 of which Rs 8.95 crore pertains to Bharat Heavy Electricals Limited. They also added that active efforts are on to recover the balance amount.

### 46.3.6 *Utilisation of manpower*

*46.3.6.1* Employees of the Ordnance Factory Organisation are classified as (i) "Officers", who man senior supervisory levels, (ii)"Non-Gazetted"

(NGO) or "Non-Industrial" employees (NIEs) 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. This reveals that the strength of the officers as percentage to total manpower as well as in absolute terms has been showing a steady increasing trend.

***(In number)***

| Category of employees | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|
| **Officers** | 3286 | 3331 | 3579 | 4140 | 4043 |
| **Percentage of officers to total manpower** | 2.01 | 2.14 | 2.33 | 2.76 | 2.77 |
| **NGO/NIEs** | 45641 | 49462 | 42920 | 42483 | 42334 |
| **Percentage of NGO[□]/NIEs to total anpower** | 28.03 | 31.81 | 27.94 | 28.31 | 28.98 |
| **IEs[^]** | 113865 | 102675 | 107137 | 103444 | 99693 |
| **Percentage of IEs to total manpower** | 69.94 | 66.03 | 69.73 | 68.93 | 68.25 |
| **Total** | 162792 | 155468 | 153636 | 150067 | 146070 |

***46.3.6.2*** The expenditure on labour is charged to production in two ways- 'direct labour' representing expenditure on labour relating directly to production and 'indirect labour' representing other expenditure on labour like maintenance and other activities incidental to production, etc. The expenditure on direct and indirect labour for the last five years is shown below:

***(Rupees in crore)***

| | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|
| **(a) Total indirect labour** | 387.29 | 410.52 | 557.34 | 675.61 | 604.33 |
| **(b) Total direct labour** | 228.13 | 260.89 | 289.94 | 345.86 | 425.00 |
| **(c)Percentage of indirect labour to direct labour** | 169.77 | 157.35 | 192.22 | 195.34 | 142.20 |

Percentage of indirect labour to direct labour varied between 142.20 and 195.34 per cent during 1995-96 to 1999-2000 and was 142.20 per cent in 1999-2000.

### *46.3.7 Inventory management*

### *46.3.7.1 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 |

*[□] NGO means non-gazetted officers serving in ordnance factory organisation. NIE means non-industrial employees serving in ordnance factory organsiation.*

*[^] IE means industrial employees serving in ordnance factory organisation.*

***46.3.7.2*** The position of stock holdings during 1995-96 to 1999-2000 was as under :

***(Rupees in crore)***

| Sl. No. | Particulars | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|---|
| 1. | **Working stock** | | | | | |
| a. | Active | 1020.59 | 1245.90 | 1462.38 | 1433.41 | 1590.70 |
| b. | Non-moving | 109.21 | 77.93 | 109.69 | 146,25 | 139.26 |
| c. | Slow moving | 122.10 | 148.39 | 133.56 | 149.45 | 105.78 |
| | **Total Working Stock** | 1251.90 | 1472.22 | 1705.63 | 1729.11 | 1835.74 |
| 2 | Waste & Obsolete | 8.47 | 8.09 | 10.56 | 10.94 | 31.57 |
| 3. | Surplus/ Scrap | 33.34 | 41.21 | 39.87 | 36.14 | 38.59 |
| 4. | Maintenance stores | 76.00 | 72.82 | 79.80 | 92.80 | 80.63 |
| | **Total** | **1369.71** | **1594.34** | **1835.86** | **1868.99** | **1986.53** |
| 5. | Average holdings in terms of number of days' consumption | 214 | 209 | 232 | 200 | 158 |
| 6. | Percentage of total slow-moving and non-moving stock to total working stock | 18.47 | 15.37 | 14.26 | 17 | 13.34 |

It may be seen that average holding in terms of number of days consumption was within normal limits during 1999-2000.

***46.3.7.3*** The existing provisioning policy has been in effect since June 1973. In the meantime tremendous progress has been made in our country as well as world over in the field of transport and communication. With the modern facilities of communication like much more efficient telephone net work, internet, e-mail, fax etc. the purchase processing time can be greatly curtailed and therefore there is need to review stock holding limits.

***46.3.7.4*** During 1999-2000 average stock holdings in five factories, as given below ranged between 10 and 13 months' requirements which exceeded the existing norms.

***(Rupees in crore)***

| Sl. No. | Name of Factory | Opening Balance as on 01 April 1999 | Closing Balance as on 31 March 2000 | Average holding of stock | Average monthly consumption | Holding of stores in terms of numbers of months consumption |
|---|---|---|---|---|---|---|
| 1. | MPTF Ambernath | 8.85 | 8.38 | 8.61 | 0.79 | 10.91 |
| 2. | Ord.Fy. Trichy | 16.06 | 14.60 | 15.33 | 1.52 | 10.09 |
| 3. | Heavy Vehicles Factory Avadi | 443.02 | 496.18 | 469.60 | 44.13 | 10.64 |
| 4. | EF Avadi | 48.26 | 38.87 | 43.56 | 3.40 | 12.8 |
| 5. | Opto Electronic Fy. Dehradun | 17.70 | 19.61 | 18.66 | 1.41 | 13.23 |

### *46.3.7.5 Stores found surplus on stock taking*

Stores valued at Rs 98.47 lakh were shown as surplus during stock taking during 1999-2000 out of which stores valued at Rs 90.43 lakh were found surplus at Ordnance Factory Ambernath and Ordnance Factory Dehu Road. This is a reflection on the quality of maintenance of stores records as surpluses could occur due to under statement of receipts of stores or over statement of issues. Such large surpluses at stock taking warrant special attention to guard against non-accounting which could lead to loss or deterioration of stores.

### *46.3.7.6 Finished Stock*

The details of finished stock holding (completed articles and components) during the last five years is given in the table below:

***(Rupees in crore)***

| | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|
| Finished stock holding (completed articles) | 95.19 | 182.58 | 112.72 | 72.78 | 89.33 |
| Total value of outturn | 3338.98 | 3929.04 | 4384.58 | 5441.13 | 7086.49 |
| Holding of finished stock in terms of no. of days issue | 10 | 17 | 9 | 5 | 4 |
| Holding in terms of percentage of total value of outturn | 2.85 | 4.65 | 2.57 | 1.34 | 1.26 |
| Finished component holding | 247.51 | 303.83 | 439.60 | 486.36 | 483.79 |
| Holding of finished components in terms of no. of days consumption | 90 | 99 | 123 | 150 | 124 |

It was noticed that Rifle Factory Ishapore was holding finished components worth Rs 4.24 crore as of March 1999. This included finished components valued at Rs 133.66 lakh in respect of four items of weapons which had already become obsolete progressively between April 1986 and February 1995. Rifle Factory Ishapore could not produce necessary documents to Audit indicating details of extracts, warrants, date of manufacture of components, etc. In the absence of the same, Audit could not verify whether the Ordnance Factory continued with the manufacture of these components even after the weapons were declared obsolete. After being pointed out in Audit in May 1999, Rifle Factory Ishapore was considering to take disposal action of the obsolete components.

Ordnance Factory Board stated in February 2001 that the components had accumulated over the years due to change in the ordering pattern, changed priorities of indentors and also due to closure/short closure of existing indents particularly during 1990-92. They further stated that a committee was being constituted for disposal of obsolete components.

Similar position might be existing in other Ordnance Factories as well. It is, therefore, recommended that the position of finished holdings in various factories is reviewed and action taken for disposal of obsolete items.

### *46.3.7.7 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 floors constitute work-in-progress.

The total value of work-in-progress as on 31 March 2000 has declined as compared to the previous year as shown in the table below:

| As on 31 March | Value of work in progress |
|---|---|
| | (Rupees in crore) |
| 1996 | 855.00 |
| 1997 | 1038.00 |
| 1998 | 1194.00 |
| 1999 | 1214.00 |
| 2000 | 1049.00 |

As on 31 March 2000, 7582 warrants valuing Rs 241.16 crore were more than one to 14 years old against the normal life of six months. Old warrants need to be reviewed at regular intervals so that the items under production may not become obsolete by the time they are completed and the expenditure rendered infructuous.

### *46.3.8 Losses written off*

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

***(Rupees in lakh)***

| Sl. No. | Particulars | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|---|---|---|---|---|---|---|
| 1 | **Over issues of pay and allowances and claims abandoned** | **3.45** | **2.44** | **2.38** | **3.20** | **3.20** |
| 2. | **Losses due to theft, fraud or neglect** | **0.52** | **0.92** | **1.29** | **2.57** | **5.77** |
| 3. | **Losses due to deficiencies in actual balance not caused by theft, fraud or neglect** | **3.97** | **18.73** | **4.16** | **0.17** | **0.27** |
| 4. | **Losses in transit** | **21.18** | **15.82** | **13.99** | **8.41** | **44.97** |
| 5. | **Other causes (e.g conditioning of stores not caused by defective storage, stores, scrapped due to Obsolescence etc.)** | **17.01** | **22.70** | **10.43** | **9.12** | **54.86** |
| 6 | **Defective storage loss** | - | - | **2.36** | **0.74** | **0.68** |
| 7. | **Manufacturing Losses** | **394.07** | **527.64** | **893.97** | **399.37** | **595.93** |
| 8. | **Losses not pertaining to stock** | **7.85** | **5.48** | - | - | - |
| 9 | **Total** | **448.05** | **593.73** | **928.58** | **423.58** | **705.68** |

### *46.4 Analysis of Cost of Production*

### *46.4.1 Analysis of Overhead Charges*

*46.4.1.1* The details of overheads and the percentage it bears to the cost of production in respect of various Ordnance factories (division wise) and also for Ordnance factories as a whole during the last five years from 1995-96 to 1999-2000 are shown below :

| *Division* | *(Rupees in crore)* | | | | | *Percentage of OH to Cost of Production* |
|---|---|---|---|---|---|---|
| | *Year* | *FOH* | *VOH* | *Total OH Charges* | *Cost of Production* | |
| *Materials and Components* | *1995-96* | *168.13* | *141.99* | *310.12* | *650.60* | *47.67* |
| | *1996-97* | *200.47* | *170.09* | *370.56* | *720.00* | *51.47* |
| | *1997-98* | *187.26* | *180.22* | *367.48* | *676.22* | *54.34* |
| | *1998-99* | *220.19* | *192.89* | *413.08* | *743.46* | *55.56* |
| | *1999-2000* | *242.06* | *235.17* | *477.23* | *941.57* | *50.68* |
| *Weapons, Vehicles and Equipment* | *1995-96* | *220.79* | *168.97* | *389.76* | *869.51* | *44.83* |
| | *1996-97* | *257.85* | *176.40* | *434.25* | *985.86* | *44.04* |
| | *1997-98* | *320.45* | *225.32* | *545.77* | *1084.42* | *50.33* |
| | *1998-99* | *365.41* | *230.34* | *595.75* | *1410.06* | *42.24* |
| | *1999-2000* | *444.70* | *271.40* | *716.10* | *1765.37* | *40.56* |
| *Ammunitions and Explosives* | *1995-96* | *165.49* | *98.46* | *263.95* | *1143.50* | *23.08* |
| | *1996-97* | *185.69* | *105.70* | *291.39* | *1317.96* | *22.11* |
| | *1997-98* | *234.27* | *125.92* | *360.19* | *1531.30* | *23.52* |
| | *1998-99* | *280.71* | *141.55* | *422.26* | *1716.19* | *24.60* |
| | *1999-2000* | *322.90* | *193.86* | *516.76* | *2686.98* | *19.23* |
| *Armoured Vehicles* | *1995-96* | *64.01* | *43.71* | *107.72* | *296.81* | *36.29* |
| | *1996-97* | *104.20* | *52.02* | *156.22* | *506.27* | *30.85* |
| | *1997-98* | *153.59* | *69.26* | *222.85* | *646.12* | *34.49* |
| | *1998-99* | *192.32* | *87.38* | *279.70* | *1100.03* | *25.43* |
| | *1999-2000* | *226.03* | *115.16* | *341.19* | *1185.59* | *28.78* |
| *Ordnance Equipment Factories* | *1995-96* | *56.03* | *35.65* | *91.68* | *378.53* | *24.22* |
| | *1996-97* | *60.36* | *44.00* | *104.36* | *398.95* | *26.16* |
| | *1997-98* | *70.52* | *50.76* | *121.28* | *446.51* | *27.16* |
| | *1998-99* | *86.03* | *55.39* | *141.42* | *471.38* | *30.00* |
| | *1999-2000* | *83.53* | *61.44* | *144.97* | *506.99* | *28.59* |
| *Grand total - Ordnance Factories as a whole* | *1995-96* | *674.45* | *488.78* | *1163.23* | *3338.95* | *34.84* |
| | *1996-97* | *808.57* | *548.21* | *1356.78* | *3929.04* | *34.53* |
| | *1997-98* | *966.09* | *651.48* | *1617.57* | *4384.57* | *36.89* |
| | *1998-99* | *1144.66* | *707.55* | *1852.21* | *5441.12* | *34.04* |
| | *1999-2000* | *1319.22* | *877.03* | *2196.25* | *7086.50* | *31.00* |

It would be seen from the table above that the percentage of overheads to the cost of production was more pronounced in respect of Ordnance factories classified under M&C Division and WV&E Division where overheads consistently formed more than 40 per cent of the cost of production. It is also relevant to mention that quite often several factories are involved in the manufacture of certain items and in such cases the material component of the cost of production at successive stages includes element of overheads loaded at previous stages. This results in inflating the cost of material.

### *46.4.2 Analysis of Cost of man power*

The details of direct labour, indirect labour, total wages, supervision charges, ratio of total wages to supervision charges and the ratio of direct labour to supervision charges in respect of various ordnance factories (division-wise) as well as for ordnance factories as a whole during the last five years from 1995-96 to 1999-2000 are shown below :

| | | (Rupees in crore) | | | | | |
|---|---|---|---|---|---|---|---|
| Division | Year | Direct Labour | Indirect Labour | Total wages | Super-vision charges | Ratio of Super-vision charges to total wages | Ratio of Supervision charges to direct labour |
| Materials and Components | 1995-96 | 38.78 | 85.70 | 124.48 | 72.17 | 0.57:1 | 1:1.86 |
| | 1996-97 | 44.06 | 93.27 | 137.33 | 81.35 | 0.59:1 | 1:1.84 |
| | 1997-98 | 43.42 | 119.97 | 163.39 | 92.26 | 0.56:1 | 1:2.12 |
| | 1998-99 | 56.96 | 139.31 | 196.27 | 107.40 | 0.54:1 | 1:1.88 |
| | 1999-2000 | 74.89 | 130.36 | 205.25 | 105.59 | 0.51:1 | 1:1.41 |
| Weapons, Vehicles and | 1995-96 | 80.05 | 142.61 | 222.66 | 120.73 | 0.54:1 | 1:1.51 |
| | 1996-97 | 91.60 | 146.98 | 238.58 | 128.52 | 0.53:1 | 1:1.40 |
| | 1997-98 | 101.12 | 195.93 | 297.05 | 184.20 | 0.62:1 | 1:1.82 |
| | 1998-99 | 110.89 | 242.52 | 353.41 | 179.78 | 0.50:1 | 1:1.62 |
| | 1999-2000 | 124.67 | 215.95 | 340.62 | 197.63 | 0.58:1 | 1:1.58 |
| Ammunitions and Explosives | 1995-96 | 53.26 | 94.49 | 147.75 | 94.13 | 0.63:1 | 1:1.76 |
| | 1996-97 | 61.13 | 99.47 | 160.60 | 111.48 | 0.69:1 | 1:1.82 |
| | 1997-98 | 67.19 | 140.89 | 208.08 | 153.22 | 0.73:1 | 1:2.28 |
| | 1998-99 | 82.85 | 161.97 | 244.82 | 160.03 | 0.65:1 | 1:1.93 |
| | 1999-2000 | 107.91 | 155.27 | 263.18 | 181.20 | 0.68:1 | 1:1.68 |
| Armoured Vehicles | 1995-96 | 12.57 | 18.53 | 31.10 | 26.13 | 0.84:1 | 1:2.08 |
| | 1996-97 | 15.11 | 21.58 | 36.69 | 30.53 | 0.83:1 | 1:2.02 |
| | 1997-98 | 24.59 | 38.05 | 62.64 | 53.25 | 0.85:1 | 1:2.16 |
| | 1998-99 | 31.48 | 50.29 | 81.77 | 64.73 | 0.79:1 | 1:2.05 |
| | 1999-2000 | 41.33 | 45.75 | 87.08 | 69.14 | 0.79:1 | 1:1.67 |
| Ordnance Equipment Factories | 1995-96 | 43.47 | 45.96 | 89.43 | 23.10 | 0.25:1 | 1:0.53 |
| | 1996-97 | 48.98 | 49.21 | 98.19 | 29.39 | 0.29:1 | 1:0.60 |
| | 1997-98 | 53.62 | 62.48 | 116.10 | 37.74 | 0.32:1 | 1:0.70 |
| | 1998-99 | 63.68 | 81.52 | 145.20 | 44.23 | 0.30:1 | 1:0.69 |
| | 1999-2000 | 76.20 | 57.00 | 133.20 | 43.91 | 0.32:1 | 1:0.57 |
| Grand total - Ordnance Factories as a whole | 1995-96 | 228.13 | 387.29 | 615.42 | 336.26 | 0.54:1 | 1:1.47 |
| | 1996-97 | 260.88 | 410.51 | 671.39 | 381.27 | 0.57:1 | 1:1.46 |
| | 1997-98 | 289.94 | 557.32 | 847.26 | 520.67 | 0.61:1 | 1:1.80 |
| | 1998-99 | 345.86 | 675.61 | 1021.47 | 556.17 | 0.54:1 | 1:1.60 |
| | 1999-2000 | 425.00 | 604.33 | 1029.33 | 597.47 | 0.58:1 | 1:1.40 |

In this regard following observations are made.

(a) Ordnance Factories on an average incurred from 54 paise to 61 paise on supervision charges against each rupee spent on total labour charges during 1995-96 to 1999-2000 which indicates high cost of supervision.

(b) For every rupee of wages paid to the industrial employees, the supervision charges incurred in Ordnance Factories under Ordnance Equipment Factory Unit was the lowest and ranged between 25 and 32 paise. In all other groups, supervision charges exceeded 50 paise against each rupee of wages paid to industrial employees and were highest in ordnance factories under Armoured Vehicles Division where these ranged between 79 and 85 paise.

(c ) Further, for each rupee of direct labour incurred for conversion of raw materials into finished articles/components, the supervision charges incurred by ordnance factories were high and ranged between Rs 1.4 and 1.8.

Ordnance Factory Board stated in February 2001 that with the progress of modernisation and introduction of hi-tech machines for production, the direct labour element is reducing for the same output due to clubbing of a number of operations in one machine e.g. CNC machine and thereby increasingly direct labour to supervision rates.

The fact, however, remains that supervision charges were disproportionately high in ordnance factories as evident from the foregoing table.

### *46.5 Accounting lapses in ordnance factories*

During scrutiny of Annual Accounts of ordnance factories for the year 1998-99, Audit noticed some irregularities which led to misrepresentation of facts and figures that had a bearing on the accuracy and completeness of Annual Accounts of Ordnance Factory Organisation as brought out below :

#### *46.5.1 Wrong exhibition of work-in-progress in the Annual Accounts*

In Gun Carriage Factory, Jabalpur, the procedure adopted for determining the value of production and work-in-progress was not in accordance with the rules laid down. The cost of production was arrived at in cost cards taking into account the estimated cost of production without any regard to actual cost incurred. The production cost thus arrived at was deducted from the total cost booked in the cost cards to arrive at the value of work-in-progress. The incorrect method followed by Factory Management/Accounts Authorities was pointed out in Audit during 1992-93. In reply to an Audit Objection, Ordnance Factory Board stated (March 1994) that the defects would be rectified with joint efforts of Factory Management/Accounts Authorities and action to price the work-in-progress as per laid down rules would be undertaken from 1992-93 onwards. Despite this assurance, the irregular practice continued to persist resulting in the incorrect exhibition of work-in-progress and cost of production in the Annual Accounts of Gun Carriage Factory year after year. The amount of work-in-progress also steadily increased from Rs 108.36 crore in 1994-95 to Rs 184.21 crore in 1998-99.

In April 1999, Ordnance Factory Board constituted a Review Committee to find out the factual position of work-in-progress and also the reasons for accumulation of huge number of outstanding warrants. The Committee in its report of August 1999 brought out that they could not get warrant-wise details of work-in-progress and as such they were left with no option but to rely on the information available in 'ON LINE' system on 31 March 1999 according to which the value was Rs 70 crore. As regards Manual Warrants, Factory Management had no records relating to work-in-progress. However, the value of all manual warrants was taken as Rs 13.08 crore as furnished by the Accounts Authorities. Thus, the total value of work-in-progress, both for computerised as well as manual warrants was worked out as Rs.83.08 crore. For the balance amount of work-in-progress amounting to Rs 101.13 crore, no records were available either with the factory management or with the Accounts Authorities.

Ordnance Factory Board stated in February 2001 that Accounts had followed the system of calculating work in progress which is overstated due to overbooking of overhead costs on non moving work in progress in the past in the absence of timely receipt and pricing of semi statement. It was further stated that in order to put this system of control and regulation of warrants and cost compilation against warrant a computerised enviornment is required which is being implemented. Ordnance Factory Board also stated that documents towards work in progress in support of Rs 44 crore has since been located and efforts were on to locate the remaining documents within the next six months.

### *46.5.2 Advance preparation of issue vouchers*

As and when the manufacture of an article is completed, these are inspected. Thereafter, the quantity accepted in inspection is posted in the production ledger card maintained by the Accounts Section attached to the Factory. One production ledger card is opened for each item/warrant simultaneously with the opening of a cost card. At the time of issue of an article, production issue vouchers are prepared and the details thereof are posted in the production ledger card under the column 'issues'. At the end of the year, production ledger cards are to be balanced and any balance not issued during the year will be checked with the statement of finished but unissued stores received from the factory as on 31 March of each year.

During scrutiny of Annual Accounts for the year 1998-99, Audit came across a few cases where issue vouchers had been prepared before the manufacture/ inspection of items as brought out below :

(I) Ordnance Factory Dehu Road prepared five issue vouchers during March 1999. For four items, inspection was carried out between May 1999 and August 1999 and the remaining one item was rejected in inspection on 23 November 1998. On this being pointed out in Audit, the Factory Management stated that the items manufactured by them were required to be proved at different proof establishments away from the manufacturing unit and as the proof establishments are not under the control of Ordnance Factory Board and also as they have their own programme of scheduling the proof which at times get delayed, it became inevitable for them to float advance vouchers. This is highly irregular as this had inflated the value of issues shown in the Annual Accounts of Ordnance Factory Dehu Road and thus, had affected the reliability and completeness of Annual Accounts.

(II) During scrutiny of Annual Accounts of Ordnance Clothing Factory Avadi for the year 1998-99, Audit noticed that the factory had prepared issue vouchers for one lakh pairs of trousers drill khaki on 31.3.1999 though these were actually issued only during 1999-2000. Even by April 2000, manufacture of 81417 pairs only could be completed and balance quantity was stated to be under inspection. Ordnance Clothing Factory Avadi stated in April 2000 that they had to do this in order to utilise the surplus budget of Services and also to maintain their value of issues. This method followed by Ordnance Clothing Factory Avadi is irregular and inflated the value of issues during 1998-99 and had thus affected the reliability and completeness of Annual Accounts.

Ordnance Factory Board stated in February 2001 that the target fixation is normally done in the previous year but the firm indent from the services are received much later after Defence Services planning determines the quality requirements with reference to budget availability. This results in compression in planning, procurement lead time and production programme leading to spill over issue of certain quantity of a few items. The delay in actual issue of such lots was also stated to be due to queing up in proof establishment which are not in a position to take the load. Ordnance Factory Board also stated that instructions have been issued for strict observance of the extant procedure.

### *46.5.3 Fictitious booking of expenditure in an Ordnance Factory*

The stock of some of the items of stores required for regular production of ammunition in Ordnance Factory Dehu Road was nil as on 31 March 1999. The joint General Manager of the Factory prepared 65 certified receipt vouchers showing receipt of different quantities of these items valued at Rs 1.38 crore on 30/31 March 1999. These were posted in the relevant bin cards even though the stores were actually received and taken on charge by the factory authorities during next financial year (1999-2000) only. On 31 March 1999 itself the factory prepared demand notes for drawal of the entire quantity of stores for which certified receipt vouchers were prepared. It was also pointed out in Audit that 31 March 1999 being a closed holiday for the factory for the purpose of stock taking, the production shops could not have drawn such a huge quantity of stores worth Rs.1.38 crore on that day. In reply, the General Manager of Factory stated that Audit did not appreciate the practical difficulties encountered by production factories while executing production targets at the close of financial year as this entailed receipt of various types of package from different sources and undertaking assemblies and thereafter testing at different far off places. The General Manager also opined that it was absolutely necessary to keep the transaction open for at least three months for finalisation of Annual Accounts after closure of financial year. Thus, the case not only disclosed fictitious booking of expenditure to the extent of

Rs1.38 crore in the Annual Accounts of the factory during 1998-99 to show that the targets fixed by Ordnance Factory Board for 1998-99 have been achieved but also inflated the cost of production for that year.

Ordnance Factory Board stated in April 2000 in reply to an audit observation that since most of the work was completed before 31 March 1999 with the available material and the balance work completed with the material received thereafter, the factory had prepared certified receipt vouchers and demand notes to complete the accounts of 1998-99. This is not tenable in as much as the expenditure on inputs consumed up to the end of financial year only should be included in the production accounts for that financial year. Ordnance Factory Board stated in February 2001 that the point has been carefully noted and suitable administrative action was being taken to prevent such recurrence.

*NOTE : The figures incorporated in this paragraph are mainly based on Annual Accounts of Ordnance and Ordnance Equipment Factories in India finalised by Principal Controller of Accounts (Factories) Calcutta, documents maintained by Ordnance Factory Board Calcutta and information supplied by Ordnance Factory Board, Calcutta.*

Reviews

## 47. Indigenous production of 5.56 mm Indian Small Arms System

*Highlights*

- Army's plan to equip the forces fully with 5.56 mm weapons system by 1998 was yet to be fully implemented as Ordnance Factories supplied only 2.75 lakh rifles and light machine guns as of March 2000. The Army expressed its concern over cold arrest observed in rifles at sub zero temperature. Major defects like breakage/cracking of components and barrel bulge have been noticed in LMG in 1999.

  (Paragraph 47.1,47.7.1,47.7.1.2)

- A Small Arms Factory failed to develop and produce 5.56 mm carbine even after a lapse of 13 years after developmental trials and spending Rs 22.18 crore on purchase of machine alone. As a result, Army foreclosed the requirement of carbine in January 2000.

  (Paragraph 47.5.1.3)

- Ordnance Factories supplied only 26.55 crore rounds of ammunition to Army against its order for 43.46 crore rounds during 1993-94 to 1999-2000 due to delayed creation of capacity for manufacture.

  (Paragraph 47.7.2)

- Army imported 10 crore rounds of ammunition and 1 lakh AK 47 rifles at a cost of Rs 85 crore as an alternative arrangement against contracts concluded in June 1995, December 1996 and August 1997 due to delayed and short supply of weapons and ammunition by Ordnance Factories.

  (Paragraph 47.8)

- Four imported cartridge case plants valuing Rs 91.42 crore were available for production only in July/September 1999 at two Ordnance Factories. This necessitated use of old plants at one Factory resulting in excess consumption of material worth Rs 5.39 crore due to provision of higher rejection allowance.

  (Paragraph 47.6.2.1)

- **Bulk procurement of 12 presses for an Ammunition Factory and Ordnance Factory from Hindustan Machine Tools Limited at a cost of Rs 3.73 crore without properly proving the first machine resulted in non-achievement of rated capacity and consequent import of four presses at huge cost of Rs 13.49 crore to bridge the gap in capacity.**

**(Paragraph 47.6.2.2)**

- **Ordnance Factory Board's delay in finalisation of contract for import of two auto carton packing plants entailed additional liability of Rs 6.92 crore due to increase in price besides loss of potential saving of Rs 9.35 crore by way of reduction in cost of labour and overhead for packing of the ammunition.**

**(Paragraph 47.6.2.3)**

### *47.1 Introduction*

The 5.56 mm Indian small arms system was conceived as a family of weapons consisting of rifle, light machine gun (LMG) and carbine all firing the same indigenous 5.56 mm ammunition and having commonality of certain components. Army finalised its qualitative requirement for the 5.56 mm weapons system in March 1982 with a view to inducting the same into service in place of existing 7.62 mm small arms system. It was planned to equip the forces with the 5.56 mm weapon system within a period of 10 years from 1988 onwards.

Based on Defence Research and Development Organisation's claims about its ability to design and develop the weapons and ammunition, Ministry of Defence assigned to Armament Research and Development Establishment Pune in November 1982 a project for design and development of the weapons/ ammunition system with planned date of completion as November 1985. Mninistry also sanctioned a project in February 1990 for manufacture of 5.56 mm rifle, LMG and its ammunition in Ordnance factories at Rs 321.01 crore with planned date of completion as February 1993.

Delayed development of the weapon system, and non-development of ammunition by Armament Research and Development Establishment Pune, delayed execution of the project at Ordnance factories and non-fulfilment of Army's plan to induct the weapons system into service was commented upon in Paragraph 40 of the Comptroller and Auditor General's Audit Report for the year ended March 1994.

### *47.2 Scope of Audit*

Audit conducted during October 1999 to March 2000 a follow-up review of progress of the project with reference to Army's plans and requirements on the basis of records maintained by Ordnance Factory Board, Armament Research and Development Establishment Pune and concerned Ordnance factories.

### *47.3 Organisational set up*

The development of the weapons and ammunition was undertaken by Armament Research and Development Establishment Pune. The indigenous manufacture of 5.56 mm rifle was entrusted to Rifle Factory Ishapore and subsequently to Ordnance Factory Trichy. LMG and carbine were entrusted to Small Arms Factory Kanpur. The manufacture of ammunition was entrusted to Ammunition Factory Kirkee and Ordnance Factory Varangaon and propellant for the ammunition to Ordnance Factory Itarsi. All the factories were to manufacture the items under overall supervision and guidance of Ordnance Factory Board.

### *47.4 Delayed projection of ammunition requirement by Army*

Army indicated its requirement of 5.56 mm weapons in April 1982 to be introduced into service by 1988. However, Army indicated its requirement of ammunition only in May 1989 as 300 crore rounds of ammunition for next 10 years. As stated by Ordnance Factory Board this delay of almost seven years in finalising the requirement of ammunition led to delay in sanctioning the project for creation of facilities at Ordnance factories.

### *47.5 Delay in development activities*

#### *47.5.1 Weapons*

***Rifle***

**Even after bulk production of rifles major defects like breakage of magazine, grenade sight, crack of ejector, bayonet and cold arrest at sub-zero temperature still persisted as of December 1999**

Army accorded clearance for bulk production of rifle in July 1992 subject to removal of defects experienced during trials. Rifle Factory Ishapore commenced bulk production after completion of design refinements in December 1994. The Armament Research and Development Establishment Pune sealed the design of rifle in November 1996. However, even as of March 1999 some defects like rise in temperature of barrel, breakage/crack of ejector, detachment of rivets of clip of upper hand guard, disturbance of axis of rear sight, expansion of magazine etc. were observed by the users. A team comprising representatives of Quality Assurance (SA) Ishapore, Armament Research and Development Establishment Pune and Rifle Factory Ishapore investigated the defects in April 1999 and observed many other defects such as breakage of magazine, grenade sight and pin lever locking, cracking of bayonet scabbard and retainer spring recoil etc. The team recommended in April 1999 improvement of materials and drawings by Armament Research and Development Establishment and Controllerate of Quality Assurance (SA) and also rectification of some defects by Rifle Factory Ishapore and these defects have since been removed as stated by Works Manager, Rifle Factory Ishapore on 30.06.2000. The qualitative requirement of Army also stipulated that performance of the weapon system should not be adversly affected by temperature variation normally met within the service which include sub-zero temperature. But the Deputy Chief of Army Staff in December 1999 expressed his concern over cold arrest observed in the rifle at sub-zero temperature, and also suggested necessary improvements in metallurgy and assembly and this problem is yet to be resolved. However, Rifle Factory Ishapore requested Master General of Ordnance Branch in February 2000 to furnish complete technical details of the said defect. A team of officers from Director General of Quality Assurance, Armament Research and Development Establishment and Ordnance Factory Board were to investigate the defect of cold arrest in Northern Command in January 2001. The result of investigation was awaited as of January 2001.

*LMG*

**There was delay of eight years in development of LMG and some defects still persisted after bulk production**

Army Headquarters emphasised in July 1989 that development of 5.56 mm weapons needed to be speeded up so that troops at Siachen and peace keeping forces could be equipped with them in 1990.

The LMG designed and developed by Armament Research and Development Establishment Pune and Small Arms Factory Kanpur was put through user trials in November 1987, July 1990, April 1992, and cleared for troop trials in September 1992. Troop trials were conducted in varying terrain and climatic conditions during March 1993 to November 1995. But persisting problems viz. breakage of runner lip which had been a cause of serious concern since 1990 persisted. Confirmatory trials to validate rectification of observations made during troop trials were held in July-August 1996 and February 1997.

In order to introduce 5.56 mm weapon system at the earliest, Army accorded clearance for bulk production of LMG in February 1997 subject to further rectification of the shortcomings / carrying out modification in carrying handle, mount for optical sight, pistol grip, locking pin, magazine etc. Based on subsequent improvements Army accorded final clearance for bulk production of LMG in May 1998. Even after that, the investigation team comprising representatives of Controllerate of Quality Assurance (SA) Ishapore, Armament Research and Development Establishment and Rifle Factory Ishapore constituted in April 1999 observed certain major defects/ problems viz. breakage of carrying handle, change lever assembly, screw locking butt, crack of retainer and sleeve bipod and barrel bulge etc. The team recommended rectification of defects by Small Arms Factory Kanpur.

Thus, despite Army having asked Ordnance Factory Board in July 1989 to speed up the process of development so as to introduce the weapon into service during 1990, development and establishment of the weapon lagged behind by eight years.

*47.5.1.3 Carbine*

The carbines designed and developed by Armament Research and Development Establishment Pune and Small Arms Factory Kanpur were subjected to development trial in 1987. Army not being fully satisfied with the design of carbine, conducted user assisted design finalisation trial in April 1992. In August 1992, Army modified the qualitative requirements and conducted user assisted trial in May 1993 and cleared for troop trials in November 1993. During troop trials held in March 1996 major deficiencies like poor accuracy in short burst, cartridge bursting in water immersion test leading to damage of the weapons etc. were found. Further users' trials of modified carbine were held in September 1999 and demonstration of the same was arranged in November 1999 in presence of Vice Chief and Deputy Chief of the Army Staff. But the Deputy Chief of the Army Staff informed Ordnance Factory Board in a meeting held in December 1999 that the carbine in its present form was not acceptable due to high sound level and heating of muzzle cover. Hence, the Vice Chief of the Army Staff foreclosed the requirement of 5.56 mm carbine in January 2000. Qualitative requirement for a new carbine was under evaluation. Thus, Armament Research and Development Establishment Pune and Small Arms Factory Kanpur failed to produce carbine to Army's satisfaction even after 13 years delaying Army's plan to equip the forces with 5.56 mm carbine.

**Development of carbine was not successful even after effort for 13 years and Army foreclosed its requirement of carbine in the present form**

*47.5.2 Ammunition*

*47.5.2.1 Ball*

**Ordnance Factories could not develop mark-II ball ammunition even after a lapse of nine years**

Although mark-I version of the ball ammunition having low velocity was accepted by Army in December 1991 as an interim measure, production of the same is still continuing in the Ordnance factories even after a lapse of nine years. Ordnance Factory Board stated in September 1999 that Ammunition Factory Kirkee developed a cartridge case for mark-II version, but the ammunition produced with the cartridge case satisfied the ballistic properties of mark-I ammunition only and therefore, this ammunition was named mark IA. Thus, the design of cartridge case for mark-II version of the ammunition having higher velocity was yet to be finalised as of March 2000. Besides, Ordnance Factory Itarsi manufactured two lots of propellant for mark-II ammunition in April 2000 but the same failed in ballistic proof as required velocity and pressure for mark-II ammunition could not be achieved as of May 2000. Armament Research and Development Establishment Pune stated in July 2000 that they had recommended for discontinuance of development of mark–II ammunition as the mark-I ammunition fully met the user's requirement. Thus, mark-II ammunition could not be developed and produced even after a lapse of nine years.

*47.5.2.2 Tracer*

**Armament Research and Development Establishemnt Pune and Ordnance Factory Varangaon took 12 years in development of tracer ammunition**

Ordnance Factory Varangaon undertook development of 5.56 mm tracer ammunition in 1985 based on design given by Armament Research and Development Establishment Pune but first user trial of the same was held only in 1990, which was found unsatisfactory. Finally, the performance of the ammunition was found satisfactory in user/confirmatory trials held in February /March 1997 and Army conveyed approval to Ordnance Factory Board in December 1997 for introduction of the tracer ammunition into service. Ordnance Factory Varangaon commenced bulk production of the ammunition only in 1999-2000 as discussed in subsequent paragraph. Thus, Armament Research and Development Establishment Pune and Ordnance Factory Varangaon took 12 years in development of this ammunition.

### *47.6 Delay in creation of manufacturing facilities*

#### *47.6.1 Machines for weapons production*

Even though the project was to be completed by February 1993, delays in procurement action resulted in Rifle Factory Ishapore installing and commissioning most of the machines needed to produce the rifle only by June 1998. One CAD/CAM machine was, however, commissioned in June 2000.

Similarly, Ordnance Factory Trichy procured 68 machines for production of the rifle only by May 2000 and Small Arms Factory Kanpur procured another 50 machines for production of the carbine at Rs 22.18 crore only by April 2000.

#### *47.6.2 Production of ammunition - propellant*

Ordnance Factory Itarsi which was to manufacture propellant for the ammunition developed by Defence Research and Development Organisation could not meet the qualitative requirements and the propellants supplied to Ordnance Factory Varangaon as well as Ammunition Factory Kirkee were rejected. Only a part of the rejected material could be rectified and was accepted during the period 1993-94 to 1999-2000.

#### *47.6.3 Plant and machinery for ammunition production*

Against the projected date of completion of February 1993, the Ordnance Factory Varangaon and Ammunition Factory Kirkee could commission most of the machines only by March 2000. A few cases of mismanaged procurement are detailed below :

##### *47.6.3.1 Cartridge case plant*

**Delayed procurement of cartridge case plant led to excess consumption of material to the extent of Rs 5.39 crore due to high rejection in the old plants**

Cartridge case plant is required for manufacture of brass cartridge case of 5.56 mm ammunition. Ministry placed embargo on procurement of plant and machinery in December 1990 and lifted it in May 1992, Ordnance Factory Board submitted a proposal to the Ministry in May 1993 for procurement of cartridge case plants. Ministry sanctioned import of four cartridge case plants each having capacity of 4 crore rounds per annum in July 1995 at a cost of Rs 81.58 crore from a foreign firm. Thus, Ministry and Ordnance Factory Board took three years to finalise procurement of major plants.

Ordnance Factory Board concluded a contract with the foreign firm in November 1995 at a cost of US dollar 21.26 million equivalent to Rs 91.42 crore♣ plus Rs 1.14 crore for indigenous items excluding duties, taxes,

♣ *1 US dollar = Rs 43*

packing, forwarding and insurance charges for supply, erection and commissioning of two plants each at Ammunition Factory Kirkee and Ordnance Factory Varangaon. Though all four plants were commissioned between November 1998 and June 1999 they were technically accepted for production at Ordnance Factory Varangaon only in July 1999 and at Ammunition Factory Kirkee in September 1999. The delayed acceptance of the plants was mainly due to malfunctioning of the machines, non-achievement of hardness gradient and certain major failures such as wearing out of turn table, leakage of hydraulic cylinder etc.

Thus, the cartridge case plants were available for production after more than six years of the planned date of completion of the project. This led to utilisation of old plants at Ammunition Factory Kirkee and consequent loss of Rs 5.39 crore during April 1996 to November 1998 due to higher rejection in manufacture using old plants.

### *47.6.3.2 CRV*[•] *press*

**Bulk procurement of defective presses resulted in non-availability of desired capacity**

CRV press is required for capping, ringing and varnishing of cartridge case of 5.56 mm ammunition. Ordnance Factory Board decided in June 1990 to procure the presses from M/s Hindustan Machine Tools Limited who was to develop the press indigenously. Ordnance Factory Board also instructed General Manager of Ammunition Factory Kirkee and Ordnance Factory Varangaon to cover full requirement of machines subject to first machine working all right.

Ordnance Factory Board placed order on the firm in September 1992 for supply, erection and commissioning of 12 presses, six each for Ammunition Factory Kirkee and Ordnance Factory Varangaon at a cost of Rs 3.73 crore with scheduled delivery period between June and November 1993. However, Ordnance Factory Board did not incorporate in the supply order any provision to prove the first press before commencement of supply of remaining eleven presses. Ammunition Factory Kirkee and Ordnance Factory Varangaon received the presses during June-September 1994 and during February 1995 to July 1997 respectively. All the presses were commissioned during October 1994 to April 1995 at Ammunition Factory Kirkee and during January to October 1999 at Ordnance Factory Varangaon.

During test run the output of the presses was found in the range of 48 to 68 per cent of contracted output of 5400 components per hour. Availability of machine-hour was found to be 45 per cent at Ammunition Factory Kirkee and 50 per cent at Ordnance Factory Varangaon against desired level of 80 per cent. Ammunition Factory Kirkee issued 18.70 crore rounds of ammunition to Army during 1994-95 to 1998-99 i.e. 3.74 crore rounds per annum against the contracted output of 7.5 crore rounds per annum. Ordnance Factory Board informed Audit in September 1997 that the presses though prima facie

[•] *CRV press means Capping, Ringing and Varnishing Press* appeared to be of sound design on the drawing board, exhibited design deficiencies during the trial run and commissioning.

Had the first machine, been proved before clearing production of remaining eleven machines, M/s Hindustan Machine Tools Limited could have taken care of those defects while manufacturing the remaining eleven machines.

General Manager Ammunition Factory Kirkee requested Ordnance Factory Board in August 1995 for import of at least one press each for Ammunition Factory Kirkee and Ordnance Factory Varangaon and Ordnance Factory Board concluded contract in January 1998 for import of four presses, two each for Ammunition Factory Kirkee and Ordnance Factory Varangaon with total capacity of 13.80 crore rounds per annum vis-à-vis installed capacity of 15 crore rounds per annum from a foreign supplier, at a cost of French Franc 20.38 million equivalent to Rs 13.49♠ crore excluding duties and taxes. The performance of those machines which were commissioned in 1999 and 2000 was yet to be adequately gauged. The total output of ammunition during 1999-2000 was 10.05 crore rounds i.e. well below the capacity of imported plants.

#### *47.6.3.3 Automatic carton packing plant*

**Delayed procurement of the plant led to price increase of Rs 6.92 crore besides non-achievement of savings of Rs 9.35 crore by way of reduction in cost of production of the ammunition**

The machine is required for fully automatic packing of 5.56 mm cartridges into carton in order to economise labour cost and obtain high rate of production.

General Manager Ordnance Factory Varangaon issued global tender enquiries in June 1994 for procurement of two plants, one each for Ammunition Factory Kirkee and Ordnance Factory Varangaon. In response to the tender enquiry, a foreign firm 'A' offered lowest price of US Dollar 0.90 million equivalent to Rs 3.07 crore ♦in November 1994 with validity period up to November 1995. Subsequently, the firm claimed 10 per cent price increase in December 1995 with extended validity period up to April 1996 provided the contract was signed by that time. Ministry issued sanction only on 26 April 1996 for release of foreign exchange of US Dollar 0.99 million equivalent to Rs 3.38 crore♦ for import of two plants. Ordnance Factory Board failed to sign the contract with the firm within the extended validity period. The firm submitted a revised offer in August 1997.Finance division of Ordnance Factory Board decided in October 1997 not to consider this offer and to go in for re-tendering which was done in October 1999, i.e. after a delay of two years. Out of two quotations received, the offer of a foreign firm 'B' was technically acceptable with extended validity period up to July 2000. Ministry sanctioned in July 2000 procurement of two plants at a cost of Rs 10.30 crore[Π] and Ordnance Factory Board issued letter of intent to the firm in July 2000 for supply of the plants. However, the contract was yet to be concluded as of July 2000.

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♠ *1 French Franc = Rs 6.62*

♦ *1 US Dollar = Rs 34.00*

Π *1 DM = Rs 21.70*

Thus, Ordnance Factory Board's failure in signing of contract with firm 'A' within the validity period and also delay of three years in re-tendering and finalisation of contract led to additional liability of Rs 6.92 crore on account of increase in price of the plants from Rs 3.38 crore to Rs 10.30 crore. Further, timely procurement of the plants could have saved Rs 9.35 crore by way of reduction in cost of labour and overhead for packing of the ammunition at both the factories during 1996-97 to 1999-2000.

### *47.7 Delay and shortfall in production*

### *47.7.1 Weapons*

#### *47.7.1.1 Rifle*

**Ordnance Factories met only 51 per cent of Army's requirement of rifles in last seven years**

Rifle Factory Ishapore commenced supply of rifles only during 1994-95 and Ordnance Factory Trichy started production only in 1999-2000. Details of Army's yearwise requirement projected in 1991, order as per indents placed in 1993 and 1999 and supply by Rifle Factory Ishapore and Ordnance Factory Trichy up to March 2000 are shown below.

| Year | Requirement | Order | Issue to Army |
|---|---|---|---|
| 1993-94 | 48000 | 7000 | Nil |
| 1994-95 | 80000 | 40000 | 20807 |
| 1995-96 | 80000 | 80000 | 20000 |
| 1996-97 | 80000 | 80000 | 40002 |
| 1997-98 | 80000 | 3000 | 60003 |
| 1998-99 | 80000 | Nil | 60200 |
| 1999-2000 | 80000 | 80000 | 68600 |
| Total | 528000 | 290,000 | 269612 |

Thus it may be seen from the table that Rifle Factory Ishapore and Ordnance Factory Trichy met only 51 per cent of Army's requirement and 93 per cent of Army's order in last seven years.

**There was 84 per cent shortfall in supply of LMG with reference to Army's requirement which badly defeated Army's plan to equip its forces by the weapon system**

#### *47.7.1.2 LMG*

Army's requirement of LMG projected in 1991, and actual orders placed and the supply of the same by Small Arms Factory Kanpur up to March 2000 out of it's capacity of 5800 LMGs per annum are given below.

| Year | Requirement | Order | Issue to Army |
|---|---|---|---|
| 1993-94 | 3400 | Nil | Nil |
| 1994-95 | 5700 | 200 | 20 |
| 1995-96 | 5700 | 2000 | 18 |
| 1996-97 | 5700 | Nil | 15 |
| 1997-98 | 5700 | Nil | 750 |
| 1998-99 | 5700 | 550 | 1475 |
| 1999-2000 | 5700 | 5800 | 3500 |
| **Total** | **37600** | **8550** | **5778** |

The shortfall in issue of LMG by the factory with reference to Army's order were 32 per cent in the last seven years. Despite clearance for bulk production from Army in May 1998 Small Arms Factory Kanpur could not match its production level with Army's order/requirement even during 1999-2000.

Thus, Army's plan to equip its forces by the 5.56 mm weapons system within 10 years was defeated due to shortfall in production of both rifle and LMG.

### 47.7.2 *Ammunition*

**Ordnance Factories met only 26 per cent of Army's requirement of ammunition even after a lapse of 10 years since sanction of the project**

Army placed first regular order on Ordnance Factory Board in August 1993 for supply of 16 crore rounds of 5.56 mm ball ammunition with scheduled delivery during 1993-94 to 1996-97. Ordnance Factory Board in turn, placed order on Ammunition Factory Kirkee and Ordnance Factory Varangaon in March and July 1994 respectively for production and issue of the ammunition to Army. Details of Army's yearwise requirement, subsequent orders for the ammunition and issue of the same by ordnance factories up to March 2000 are shown below:

| Year | Requirement (Ball and Tracer) (Quantity in lakh) | Order (Quantity in lakh) | | | Issue to Army (Quantity in lakh) | | |
|---|---|---|---|---|---|---|---|
| | | Ball | Tracer | Total | Ball | Tracer | Total |
| 1993-94 | 740 | 65 | NIL | 65 | NIL | NIL | NIL |
| 1994-95 | 1414 | 400 | NIL | 400 | 45 | NIL | 45 |
| 1995-96 | 1634 | 435 | NIL | 435 | 150 | NIL | 150 |
| 1996-97 | 1391 | 700 | NIL | 700 | 300 | NIL | 300 |
| 1997-98 | 1476 | NIL | NI L | NIL | 454 | NIL | 454 |
| 1998-99 | 1650 | 331 | NIL | 331 | 700 | 1 | 701 |
| 1999-2K | 1769 | 2409 | 6 | 2415 | 1000 | 5 | 1005 |
| Total | 10074 | 4340 | 6 | 4346 | 2649 | 6 | 2655 |

As seen from the table ordnance factories fulfilled only 61 per cent of Army's order for the ammunition in last seven years. Reasons for shortfall in production of the ammunition was mainly due to delayed procurement and commissioning of cartridge case plants and CRV presses at Ammunition Factory Kirkee and Ordnance Factory Varangaon, non-conversion of existing tracer filling machine to suit 5.56 mm ammunition filling at Ordnance Factory Varangaon and delayed procurement of auto carton packing plant at both the factories. Besides, production was affected due to Ordnance Factory Itarsi's failure to supply required quantity of propellant to Ammunition Factory Kirkee and Ordnance Factory Varangaon for manufacture of the ammunition.

Thus, Ordnance Factories met only 26 per cent of Army's requirement of the ammunition after incurring an expenditure of Rs 173 crore as of March 2000 and lapse of 10 years since sanction of the project in February 1990.

**Army imported weapons and ammunition worth Rs 85 crore due to short supply of 5.56 mm weapons and ammunition by ordnance factories**

### *47.8 Import of weapons and ammunition*

Due to delayed development and short supply of 5.56 mm weapons and ammunition Army imported 1 lakh AK 47 rifles and 500 lakh rounds of its ammunition as an alternative arrangement at a cost of US Dollar 1.65 crore equivalent to Rs 53.88 crore[√] against two contracts concluded by the Ministry in June 1995 and December 1996 with two foreign suppliers.

Further in order to avoid mismatch between issue of weapons and its ammunition to troops Army also imported 500 lakh rounds of 5.56 mm ammunition during August 1998 to November 1999 at a cost of US Dollar 86.5 lakh equivalent to Rs 31.14 [•]crore against the contract concluded in August 1997 with a foreign supplier.

The matter was referred to the Ministry in August 2000; their reply was awaited as of December 2000.

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[√] *1 US Dollar = Rs 32.65*

[•] *1 US Dollar = Rs 36.00*

## 48. Functioning of Vehicle Factory Jabalpur

*Highlights*

- Ministry, Army and Ordnance Factory Board did not finalise specifications of the new generation of vehicles for use by the Army and decided on transfer of technology of two types of vehicles excluding their engines from Telco and Ashok Leyland at Vehicle Factory Jabalpur. The engines of new generation vehicles will continue to be purchased from Telco and Ashok Leyland.

  (Paragraph 48.1 and 48.3)

- The capacity of the factory was utilised to the extent of only 51 to 21 per cent during 1994-95 to 1999-2000 due to non-availability of sufficient order from Army.

  (Paragraph 48.5 and 48.6)

- The factory could not utilise direct industrial employees ranging between 2376 and 3485 during 1995-96 to 1999-2000. But no efforts were made to retrain the direct industrial employees so that they could be utilised at other sister factories where there could be need for more industrial employees.

  (Paragraph 48.7)

- In spite of 522.21 lakh unutilised man-hours during 1994-95 to 1999-2000 the factory resorted to overtime work of 229.05 lakh man-hours involving payment of Rs 52.51 crore.

  (Paragraph 48.9)

- General Manager of the factory placed order for 140 tools for manufacture of civil Jonga at a cost of Rs 28.16 crore and incurred expenditure of Rs 16.11 crore as of March 1997 without any sanction of the competent financial authority which later proved to be infructuous.

  (Paragraph 48.11.2)

- The factory failed to market civil Jonga due to defects in the vehicles. This resulted in unremunerative locking up of public money to the tune of Rs 4.86 crore on account of unsold vehicles and unutilised engines. There was also uncertainty about utilisation of 1179 radiators valuing Rs 48.55 lakh and 62 semifinished vehicles.

  (Paragraph 48.11.1)

- There was avoidable manufacturing loss of Rs 8.54 crore at Vehicle Factory Jabalpur during 1994-95 to 1998-99 due to rejection of castings of cylinder heads and blocks ranging between 24 and 60

***per cent* during machining stage; against permissible limit of 20 to 25 *per cent* which itself was very high.**

**(Paragraph 48.10)**

### *48.1 Introduction*

Vehicle Factory Jabalpur was established in 1969-70 to manufacture three types of non-fighting vehicles for the Army, these being a 3 ton truck-Shaktiman, a 1 ton patrol vehicle-Nissan and a 0.25 ton general utility vehicle-Jonga. The factory was also equipped to produce engines for replacement purposes. The cost incurred in setting up the factory was Rs 50.94 crore, for a planned production of 13200 vehicles per year. An additional expenditure of Rs 22.61 crore was incurred for balancing plant and equipment and certain back-up facilities when it was found that the factory could not produce more than 8000 vehicles a year with existing plant and equipment. The augmentation was completed in 1988 and the factory was expected to produce 9000/10000 vehicles a year with 54/60 hours of working per week.

The performance of this factory had been reported to Parliament in the Report of the Comptroller and Auditor General of India for the year 1977, 1988 and 1993. Apart from the various problems arising out of capacity utilisation and defects in production, there was a steep decline in the orders placed on the factory by the Army chiefly on account of the perception that the vehicles did not measure up to the latest developments in automobile technology. Curiously though, the Army itself could not finalise the General Staff Qualitative Requirements for the three types of vehicles until March 1986, the factory has now been entrusted with the licensed manufacture of 2.5 ton Telco (LPTA) and 5/7.5 ton Ashok Leyland (Stallion) vehicles for supply to the Army.

### *48.2 Scope of Audit*

In view of the new vehicles planned for production and the installation of additional equipment for this purpose, it was decided to review the working of the factory on the basis of records maintained in the factory, the Ordnance Factory Board and the Ministry of Defence.

### *48.3 Production of new class of vehicles*

Ministry decided in March 1997 to assemble 2.5 ton Telco (LPTA) and 5/7.5 ton Ashok Leyland (Stallion) vehicles at Vehicle Factory Jabalpur with complete/semi knocked down support from the concerned firms and to manufacture complete vehicles after transfer of technology. The objectives were to utilise the capacity in manufacturing components, sub-assemblies and complete vehicles. The possibility of supplying to the domestic industry was to be planned as well.

In February 1998, Ministry sanctioned procurement of 1000 sets each of semi knocked downs including engine for 2.5 ton LPTA and 5/7.5 ton Stallion vehicles from the concerned firms at a cost of Rs 140.31 crore. Ministry also sanctioned in July 1998 for transfer of technology against payment of Rs one crore and two *per cent* royalty on value addition for five years for LPTA and Rs 3.8 crore for Stallion vehicles. However, the factory management had not paid any royalty to Telco as of November 2000.

Vehicle Factory Jabalpur concluded contracts in March 1998 with Ashok Leyland Chennai and Telco Mumbai for supply of 1000 sets each of semi knocked downs of 5/7.5 ton and 2.5 ton vehicles at a cost of Rs 84.80 crore and Rs 55.51 crore respectively. Ordnance Factory Board also concluded agreements in August/September 1998 with both the firms for transfer of technology for production of 5/7.5 ton and 2.5 ton vehicles except their main engine. According to agreements the factory would on its own make continuous efforts to establish procurement and manufacture of the components within a period of three years i.e. by September 2001. In-house manufacture of components for LPTA and Stallion vehicles was established to the extent of 25 and 63 per cent respectively as of July 2000. The factory, however, commenced assembly of two types of new class of vehicles from March 1998 onwards.

The rationale of the decisions of the Ministry to produce Telco and Ashok Leyland vehicles at such a late stage is questionable as Army could have straightway procured vehicles from Telco, Ashok Leyland and other manufacturers rather than procuring components of the same in CKD/ SKD condition and assembling these at Vehicle Factory Jabalpur which entailed higher costs in view of the cost of transportation of components to this factory and the factory's overheads.

Ordnance Factory Board stated in December 2000 that a phased backward integration programme was finalised and in-house production was progressing accordingly which led to successful utilisation of resources available at the factory. The rationale of backward integration is questionable as technologically advanced vehicles are available in trade and Vehicle Factory Jabalpur would only continue to chase trade firms for technological upgradation. In view of easy availability of the vehicles from trade at competitive rates, Ordnance Factory Board's plan of committing more and more funds towards backward integration on the pretext of utilising resources of Vehicle Factory Jabalpur is not judicious.

**There was loss of Rs 20.64 crore in issue of new generation vehicles to Army during 1997-98 and 1998-99**

### *48.4 Avoidable loss in production of Stallion and LPTA vehicles*

Vehicle Factory Jabalpur suffered a loss of Rs.20.64 crore in issue of Stallion and LPTA vehicles to Army during 1997-98 to 1998-99 as shown in following table.

| Stallion | | (Rupees in lakh) | | |
|---|---|---|---|---|
| Year | Quantity issued | Total cost of production | Total cost of issue | Loss incurred |
| 1997-98 | 85 | 916.30 (@Rs 10.78 lakh each) | 913.75 (@Rs 10.75 lakh each) | 2.55 |
| 1998-99 | 915 | 10522 (@Rs 11.50 lakh each) | 9836.25 (@Rs 10.75 lakh each) | 686.25 |
| | 985 | 11327.50 (@Rs 11.50 lakh each) | 11169.90 (@Rs 11.34 lakh each) | 157.60 |
| LPTA | | | | |
| 1997-98 | 223 | 1565.46 (@Rs 7.02 lakh each) | 1505.25 (@Rs 6.75 lakh each) | 60.21 |
| 1998-99 | 777 | 6161.61 (@Rs 7.93 lakh each) | 5244.75 (@Rs 6.75 lakh each) | 916.86 |
| | 1096 | 8691.28 (@Rs 7.93 lakh each) | 8450.16 (@Rs 7.71 lakh each) | 241.12 |
| Total | 4081 | | | 2064.59 or say 20.64 crore |

**Army procured two types of vehicles at a cost of Rs 596 crore from trade during 1993-94 to 1998-99**

The cost of production was high mainly on account of expenditure on transportation and packing of semi knocked down components from Ashok Leyland and Telco factories to Vehicle Factory Jabalpur and overhead expenses. Since direct labour worth only Rs 2.79 crore could be engaged in assembling of above vehicles, the purpose of utilising idle labour was hardly served and therefore Ministry's decision to manufacture new series of vehicles at Vehicle Factory Jabalpur incurring heavy loss was not justified. The Army in any case had to meet their requirement of 6880 of the same vehicles from trade at a cost of Rs 596 crore during 1993-94 to 1999-2000.

Ordnance Factory Board stated that Audit had worked out the loss with reference to cost of Stallion and LPTA as per Annual Accounts but as per cash flow method of assessment Vehicle Factory Jabalpur had generated a net surplus of Rs 22.02 crore in 1998-99 and Rs 5.88 crore in 1999-2000. Ordnance Factory Board did not explain what they meant by cash flow method, neither did they furnish any calculation in support of their contention. However the fact remains that the factory suffered losses in issue of all types of vehicles to the tune of Rs 60.98 lakh, Rs 3.83 crore, Rs 6.38 crore and Rs 36.33 crore in the year 1995-96, 1996-97, 1997-98 and 1998-99 respectively as per Annual Accounts of the factory. Hence, Ordnance Factory Board's argument is not acceptable to Audit.

**There was extra expenditure of Rs 23.14 crore in purchase of 4081 vehicles by Army from Vehicle Factory Jabalpur**

Besides, Army also had to incur extra expenditure of Rs 23.14 crore on account of purchase of 4081 vehicles from Vehicle Factory Jabalpur as the unit cost of vehicles for trade procurement was less than the cost of issue of Vehicle Factory Jabalpur during 1997-98 and 1998-99. Ordnance Factory Board stated in December 2000 that the issue price of Vehicle Factory Jabalpur for 4081 Vehicles was only Rs 6.07 crore more than that of Ashok leyland and Telco taking into account price variation clause provided in agreement of transfer of technology. Ordnance Factory Board's assessment is not acceptable as the extra expenditure was calculated by Audit based on difference in cost of direct procurement by Army of vehicles from trade and from Vehicle Factory Jabalpur.

### 48.5 Production of old class of vehicles

**Capacity of the factory was utilised to the extent of only 51 to 21 per cent during last 6 years in manufacture of old and new vehicles**

The capacity of Vehicle Factory Jabalpur was to produce 9000 vehicles per annum working 54 hours per week with sanctioned strength of 10,200 industrial employees.

The percentage of capacity utilisation with reference to the capacity available on the basis of average strength of industrial employees against norms of manufacture of 9000 vehicles with sanctioned strength of 10,200 industrial employees are shown below:

| Year | Average strength of industrial employees | Capacity available with reference to IEs strength | Issue of vehicles | Percentage of capacity utilisation |
|---|---|---|---|---|
| 1994-95 | 7638 | 6721 | 3466 | 51 |
| 1995-96 | 7521 | 6618 | 3312 | 50 |
| 1996-97 | 7393 | 6506 | 3247 | 50 |
| 1997-98 | 7149 | 6291 | 2807 | 45 |
| 1998-99 | 6816 | 5998 | 1543 | 26 |
| 1999-2000 | 6485 | 5707 | 140 | 2 |

### 48.6 Production of new vehicles

Army placed its first order for new vehicles viz. Stallion and LPTA in February 1998 on Ordnance Factory Board. Details of Army's orders on Ordnance Factory Board and vehicles assembled and issued by Vehicle Factory Jabalpur from 1997-98 onwards are given below :

| Year | Army's outstanding order as of 1st Aprill | Order received during the year | Total order | Issue to Army | Percentage of capacity utilisation | | |
|---|---|---|---|---|---|---|---|
| | | | | | New vehicles | Old vehicles | Total |
| 1997-98 | Nil | 2000 | 2000 | 308 | 1 | 45 | 46 |
| 1998-99 | 1692 | 2081 | 3773 | 3773 | 12 | 26 | 38 |
| 1999-2K | Nil | 5862 | 5862 | 5862 | 19 | 2 | 21 |

The above tables indicate that Army's order for existing vehicles had a drastically diminishing trend. As a result, the capacity of the factory was utilised to the extent of only 51 to 21 *per cent* during 1994-95 to 1999-2000. Army did not place orders for Shaktiman, Nissan and Jonga after 1998-99.

Ordnance Factory Board stated that the percentage of capacity utilisation for old vehicles was 59.87 to 2.91 during 1994-1995 to 1999-2000 which was based on the norms of manufacture of 7200 vehicles per annum with sanctioned strength of 9500 industrial employees. This contention is not acceptable as the Ministry's sanction of March 1979 stipulated the revised ceiling of production at 9000 vehicles per annum with sanctioned strength of 10200 industrial employees. The percentage of capacity utilisation was calculated by Audit was based on this norm. Similarly, Ordnance Factory

Board's assessment of capacity utilisation for new vehicles in the range of 5.68 to 119.27 *per cent* during 1997-98 to 1999-2000 is not acceptable as General Manager Vehicles Factory Jabalpur himself stated in March 1998 that only one *per cent* of the capacity was utilised in assembly of 308 new vehicles through semi knocked down route during 1997-98. Based on this norm the capacity utilisation for assembly of 3773 and 5862 new vehicles during 1998-99 and 1999-2000 were calculated as 12 and 19 *percent*, respectively.

### *48.7 Underutilisation of direct labour*

**There was gross underutilisation of direct labour**

In the year 1987-88, the factory reached peak production level of 8758 vehicles with the strength of 6091 direct industrial employees. Details of direct labour available, required and unutilised with reference to output since 1995-96 onwards are shown below:

| Year | No. of vehicles manufactured | | | Average strength of direct labour | Direct labour required with reference to production of 1987-88 | | | Direct labour unutilised | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | Old series | New series | Total | | Old series | New series(A) | Total | | |
| 1987-88 | 8758 | - | 8758 | 6091 | - | - | - | - | (A) 100 direct labours are required for assembly of 2000 new series vehicles. Therefore 16, 189 and 293 direct labours were engaged in assembly of new series vehicles. |
| 1995-96 | 3312 | - | 3312 | 4767 | 2303 | - | 2303 | 2464 | |
| 1996-97 | 3247 | - | 3247 | 4634 | 2258 | - | 2258 | 2376 | |
| 1997-98 | 2807 | 308 | 3115 | 4411 | 1952 | 16 | 1968 | 2443 | |
| 1998-99 | 1543 | 3773 | 5316 | 4129 | 1073 | 189 | 1262 | 2867 | |
| 1999-2K | 140 | 5862 | 6002 | 3875 | 97 | 293 | 390 | 3485 | |

Thus, the factory could not utilise direct industrial employees to optimum capacity during 1995-2000. No efforts were made to gainfully utilise them by redeployment or retraining in spite of the factory not being in a position to enhance the production level due to non-availability of orders for existing vehicles from the Army.

Ordnance Factory Board stated that the available manpower was gainfully utilised in manufacture and assembly of old and new vehicles and balance manpower engaged for development of items of Stallion/LPTA during 1998-99 and 1999-2000. This contention is not correct as only 100 direct labours were required for assembly of 2000 new generation vehicles and so only 189 and 293 direct labours could be engaged for assembly of 3773 and 5862 new vehicles during 1998-99 and 1999-2000 respectively and consequent utilisation of direct labours is shown in the above table. Besides, Ordnance Factory Board itself contradicted the earlier statement by stating that manpower of the factory would be fully utilised only from October 2000 onwards.

### *48.8 Underutilisation of available standard man-hours*

**Underutilisation of standard man-hours increased from 36 in 1995-96 to 69 per cent in 1999-2000**

The standard man-hours available in the factory were much higher than that required for manufacture of the ordered vehicles. Details of standard man-hours available, utilised and percentage of underutilisation of man-hour during last six years are shown below:

| Year | Standard man-hours ( in lakh) | | |
|---|---|---|---|
| | Available | Utilised | Percentage of underutilisation |
| 1994-95 | 175.93 | 89.91 | 49 |
| 1995-96 | 148.75 | 95.81 | 36 |
| 1996-97 | 174.27 | 77.41 | 56 |
| 1997-98 | 148.03 | 67.90 | 54 |
| 1998-99 | 148.60 | 44.43 | 70 |
| 1999-2K | 147.64 | 45.50 | 69 |
| Total | 943.17 | 420.96 | |

The table indicates that underutilisation of man-hours gradually increased from 36 *per cent* during 1995-96 to 70 *per cent* during 1998-1999. Upward trend of underutilisation of man-hours was mainly due to reduction of Army's order for existing vehicles and assembly of new vehicles with complete/semi knocked downs procured from Telco and Ashok Leyland.

Ordnance Factory Board furnished under utilisation of standard manhours in the range of zero to 37.98 *per cent* during 1994-1995 to 1999-2000 based on difference between input standard manhours of only direct employees and total output standard manhours plus 25 *per cent* for built in profit. This is not acceptable as Audit calculated underutilisation of standard manhours based on difference between total input and output standard manhours which were reflected in the progress report for the month of February 2000 furnished by the General Manager, Vehicle Factory Jabalpur to Ordnance Factory Board.

### *48.9 Unjustified overtime*

**There was avoidable payment of overtime to the tune of Rs 52.51 crore**

Despite significant underutilisation of standard man-hours available at Vehicle Factory Jabalpur, the General Manager of the factory resorted to work on overtime basis. Details of unutilised man-hours, overtime allowed and payment made during last six years are given below :

| Year | Unutilised man-hours (In lakh hour) | Overtime allowed (In lakh hour) | Payment made for overtime (Rs in lakh) | Avoidable payment for overtime (Rs in lakh) |
|---|---|---|---|---|
| 1994-95 | 86.02 | 45.01 | 427.36 | 427.36 |
| 1995-96 | 52.94 | 67.02 | 1113.96 | 879.93 |
| 1996-97 | 96.86 | 41.47 | 1050.63 | 1050.63 |
| 1997-98 | 80.13 | 20.98 | 488.47 | 488.47 |
| 1998-99 | 104.12 | 24.76 | 1358.86 | 1358.86 |
| 1999-2K | 102.14 | 29.81 | 1046.05 | 1046.05 |
| Total | 522.21 | 229.05 | 5474.47 | 5251.30 |

The action of resorting to overtime despite available man-hours remaining under-utilised year after year resulted in payment of Rs 52.51 crore for overtime during last six years. General Manager Vehicle Factory Jabalpur stated in March 1998 that overtime was given to achieve the production programme. This contention is not tenable as annual production of existing vehicles decreased from 3466 in 1994-95 to 140 only in 1999-2000 and the production target could have been easily met by the available man-hours without resorting to overtime.

Ordnance Factory Board stated in December 2000 that late placement of orders by Army during 1998-1999 and 1999-2000 and their insistence on supplying the vehicles within a short period led to spurt of production activity at the end of the year and overtime working became unavoidable. Ordnance Factory Board's contention is not tenable as the factory had outstanding order for 1692 new vehicles in April 1998 and received order for 2081 vehicles by July 1998 itself for 1998-1999. Similarly, against Army's total order for 5862 vehicles for 1999-2000, the factory received order for 5023 vehicles by June 1999 and only 839 vehicles in January 2000. The trend of Army's orders clearly indicates that the factory got 9 to 12 months time in a year which was sufficient for assembly of the new vehicles ordered through semi knocked down route by utilising available manhours.

### *48.10 Abnormal rejection of castings during machining at Vehicle Factory Jabalpur*

**There was abnormal rejection of castings to the tune of Rs 8.54 crore**

Vehicle Factory Jabalpur received three types of castings viz. Shaktiman crank case, Shaktiman cylinder head and Nissan cylinder block from Grey Iron Foundry Jabalpur for manufacture of Shaktiman and Nissan vehicles. Machining rejection of these castings was allowed between 20 and 25 *per cent* due to bad material and between 2.5 and 3 *per cent* due to bad workmanship in the estimates. Against this, the actual rejections of cylinder heads and blocks ranged between 24 and 60 *per cent*.

High rejection of castings beyond that provided in the estimates was commented upon in paragraph 26.8.3 of the Audit Report of the Comptroller and Auditor General of India for the year ended 31 March 1993. Ministry in their action taken note of May 1996 stated that the abnormal rejection was mostly due to bad material revealed only after machining of castings.

The vertical integration of production in the Ordnance Factories, far from serving the intended purpose of ensuring adequate supplies of high quality inputs actually led to lack of flexibility in sourcing of inputs and absence of quality consciousness in the feeder factories which are assured that their products will be lifted despite shoddy quality.

This also indicated that the quality control checks prescribed by Director General of Quality Assurance both on the finished products of Grey Iron Foundry and the input material received at the Vehicle Factory were inadequate and new technologies such as gamma camera inspection as routinely used in comparable industries had not been introduced.

The details of manufacturing losses at Vehicle Factory Jabalpur during 1994-95 to 1998-99 due to defective castings supplied by Grey Iron Foundry

Jabalpur, amounts involved and losses regularised as of November 2000 are shown below:

| Year | Manufacturing loss | | Loss sanctioned | | Loss yet to be sanctioned | |
|---|---|---|---|---|---|---|
| | Number of cases | Amount (Rs. in lakh) | Number of cases | Amount (Rs. in lakh) | Number of cases | Amount (Rs. in lakh) |
| 1994-95 | 155 | 416.00 | 143 | 108.37 | 12 | 307.63 |
| 1995-96 | 86 | 114.00 | 84 | 84.68 | 2 | 29.32 |
| 1996-97 | 58 | 93.00 | 56 | 73.29 | 2 | 19.71 |
| 1997-98 | 124 | 166.00 | 120 | 133.15 | 4 | 32.85 |
| 1998-99 | 107 | 65.27 | 106 | 64.14 | 1 | 1.13 |
| Total | 530 | 854.27 | 509 | 463.63 | 21 | 390.64 |

### *48.11 Civil trade activities*

#### *48.11.1 Delayed and inefficient performance*

**There was loss of Rs 4.86 crore in manufacture of civil jonga**

Ministry decided in July 1993 that Ordnance Factory Board would take action to explore the market for selling vehicles to private and other parties in order to utilise the surplus capacity at Vehicle Factory Jabalpur. Pursuant to the above decision the factory developed versions of Jonga for civil market using Hino engine, a brand of Ashok Leyland and launched three versions in November 1994 at Delhi for sales promotion of the product.

Ministry issued sanction in January 1995 for manufacture of 400 vehicles. However, the factory received orders for 1159 civil Jonga during 1994-95 to 1998-99 against which only 101 Jonga were supplied. Besides, the factory also supplied 44 Jonga to sister factories.

Non-fulfilment of delivery schedule by the factory was due to certain defects in the vehicles such as -

- inconsistent and poor body finish ,
- excessive engine noise and vibration and
- non-compatibility between engine and three speed gear box at low speed and city drive.

The factory could not successfully establish in-house bodybuilding due to non-availability of press tool, welding fixtures, other infrastructural expertise and technical know-how and got the bodies built by outside bodybuilders. As the factory failed to exercise adequate control on the quality of bodybuilding, the customers were not satisfied with the appearance of the vehicles. The problems of quality and delivery were compounded by poor after sales service. All these resulted in cancellation of booking for 998 vehicles by the customers and 113 vehicles valuing Rs 4 crore though ready for delivery were lying idle as there was no response from the civil customers as of March 2000. General

Manager Vehicle Factory Jabalpur requested Ordnance Factory Board in February 2000 to accord approval for allocation of those vehicles to other sister factories over and above their existing vehicle strength so as to avoid huge loss of public money. But Ordnance Factory Board did not accept the proposal as of March 2000 as ordnance factories holding these vehicles were not happy with their performance. Further the factory was holding 98 engines valuing Rs 86.24 lakh conforming to outdated emission norms of 1996 which have no prospect of utilisation. The factory was also holding 62 vehicles in semi finished and non-saleable condition. Besides, 1179 radiators valuing Rs 48.55 lakh were also lying at stock since August 1998 onwards.

Thus, venturing into manufacture of Jonga for civil market without adequate understanding of the market and customer preferences in 1995 i.e. at a time when market was flooded with technologically advanced, fuel efficient and much sleeker vehicles from manufacturers like Maruti, Mahindra and Mahindra etc. was injudicious. This resulted in manufacture of unmarketable vehicles leading to blocking of public money.

### *48.11.2 Procurement of tools without sanction and failure to ensure proper supplies*

**There was infructuous expenditure of Rs 16.11 crore in procurement of press tools for civil Jonga**

General Manager, Vehicle Factory Jabalpur in 1994 thought of manufacturing the body component and fabricating the entire body in-house by utilising huge idle capacity at press shop and placed seven orders on two private firms and a Public Sector Undertaking during February to July 1995 for supply of 140 types of press tools at a total cost of Rs 28.16 crore required for bodybuilding of civil Jonga. The General Manager was only empowered to purchase tools under revenue grant costing up to Rs 0.25 lakh with maximum life of two years, and thus the expenditure was without any sanction from competent financial authority i.e. Ministry of Defence. Ordnance Factory Board stated in November 1999 that though there was no formal sanction, allocation of budget by Ordnance Factory Board in November 1996 and September 1997 was to be considered as implied sanction. This reply is not correct as Ordnance Factory Board was fully aware that mere budget provision does not imply sanction for procurement of stores.

Although Ordnance Factory Board stated in December 2000 that Audit's view was noted for future compliance, there was no indication regarding action taken to regularise the financial irregularity by the competent financial authority.

Out of 140 tools ordered, Vehicle Factory Jabalpur received 100 tools and paid Rs 15.18 crore to private firm. General Manager Vehicle Factory Jabalpur also paid Rs 54.39 lakh to a Public Sector Undertaking and Rs 38.59 lakh to another private firm till April 1997 as advance towards cost of tools. Of the 100 tools received, 10 tools valuing Rs 83.89 lakh were rejected and 31 tools valuing Rs 6.33 crore were redundant. The rejected tools were not returned to the firms as of November 2000 and both rejected and redundant tools were lying in the factory since November 1997. The Public Sector

Undertaking and another private firm failed to supply any tool to the factory and the factory intimated the firms in March 1999 that tools were no longer required and requested them to refund the advance amount of Rs 93 lakh which was still to be received as of November 2000. It was noticed that the factory could not produce bodybuilding and ordered bodybuilding of 243 civil Jonga from trade at a cost of Rs 1.84 crore during 1994-95 to 1997-98. Thus, General Manager's action in incurring infructuous expenditure of Rs 16.11 crore towards procurement of tools without sanction of competent financial authority was not only a serious financial irregularity in terms of procedure, but more serious malfeasance cannot be ruled out.

### *48.12 Lack of perspective thinking on Vehicle Factory Jabalpur*

**Continuation of the factory in the light of unviable yield is questionable**

After the Army shifted their preference from Shaktiman, Nissan and Jonga vehicles, Vehicle Factory Jabalpur has been starved of adequate workload. Ministry and Ordnance Factory Board instead of evolving long term perspective plan for the factory, have been responding with short term measures with the limited objective of somehow keeping the work force engaged. Jonga was launched in civil trade but without adequate distribution and after sale service chains and without ascertaining customer preference.

Ordnance Factory Board stated that with the establishment of Stallion/ LPTA vehicles there would be no problem of workload for next 10 years. This is not tenable since automobile technological advances would not remain frozen for next ten years and establishment of the production of Stallion/LPTA vehicles may not take care of Army's future requirements. Considering Vehicle Factory Jabalpur's limitation in introducing technological innovation, it is questionable as to what extent Army could continue to place reliance on Vehicle Factory Jabalpur for next ten years.

Presently, Vehicle Factory Jabalpur is assembling Telco/Ashok Leyland vehicles by procuring semi knocked down components, largely without serving the purpose of keeping the labour force engaged and at an unnecessary cost of transporting semi knocked down components and underutilised capital. Since Indian automobile manufacturing capacity outside ordnance factories is large enough to cater for the Army's demands, creation of facilities for production of these vehicles through procurement of plant and machinery at a cost of Rs 21.03 crore at Vehicle Factory Jabalpur during 1998-99 and 1999-2000 was unnecessary and unjustified.

Ordnance Factory Board argued that the commercial vehicle manufacturers would dictate terms and exploit their monopolistic position once Vehicle Factory Jabalpur was out of the scene. This is not acceptable as automobiles are no more a seller's market, it has rather become buyer's market. Besides, Army has been procuring all types of vehicles viz. staff car, ambulance, motor cycle, jeep, bus etc. including Stallion and LPTA from trade.

The matter was reported to the Ministry in September 2000; their reply was awaited as of December 2000.

# Production

## Planning

### 49. Failure to produce established items

**The General Manager Gun Carriage Factory Jabalpur failed to manufacture Case Dial Sight and Mount of a Gun even after incurring an expenditure of Rs 41.03 lakh.**

General Manager Gun Carriage Factory Jabalpur failed to locate a source for 1.6 mm thick alloy steel sheet required for production of Case Dial Sight and Mount of Indian Field Gun Mark-I. This led to non-manufacture of the item over a period of nine years despite an expenditure of Rs 41.03 lakh.

**COD Agra placed indent on OFB for manufacture of Case Dial Sight and Mount**

**GCF undertook manufacture of Case Dial Sight and Mount in April 1993**

**Gun Carriage Factory could not manufacture Case Dial Sight till date**

Case Dial Sight and Mount-spare, items required in Indian Field Gun Mark-I, were established items of production at Gun Carriage Factory Jabalpur. The Central Ordnance Depot Agra placed an indent in June 1990 on Ordnance Factory Board for supply of 640 Case Dial Sight and Mount to be supplied by March 1994. Ordnance Factory Board entrusted the manufacture to the General Manager Gun Carriage Factory Jabalpur in February 1991. Gun Carriage Factory Jabalpur incurred an expenditure of Rs 10.47 lakh up to July 1995. However, as no source could be found for 1.6 mm thick alloy steel sheet, a raw material required in manufacture of 15/16 of the 50 components of Case Dial Sight and Mount, the planning section of the factory instructed manufacturing sections in July 1995 to keep further manufacture of Case Dial Sight and Mount in abeyance. Despite the planning section's instruction of July 1995 the project-8 Section of the factory went ahead with the manufacture of two components viz Body and Shaft-retaining for Case Dial Sight and Mount and incurred further expenditure of Rs 30.56 lakh during August 1995 to November 1999. The Gun Carriage Factory Jabalpur was yet to manufacture Case Dial Sight and Mount as of September 2000.

A Board of Enquiry in its report of March 2000 held the planning section responsible for not conducting periodical review of outstanding extracts/co-ordination with the manufacturing section. The Board of Enquiry also faulted the project-8 section of the factory for operating the warrant of April 1993 beyond July 1995 despite the planning section's instruction to the contrary.

Ministry of Defence stated in September 2000 that the expenditure was incurred for manufacture of various components which were held in stock as semis and Case Dial Sight and Mount would be manufactured/assembled after receipt of alternate material approved by the Authority Holding Sealed Particulars.

However, failure of Gun Carriage Factory Jabalpur to locate a raw material and lax review of progress of manufacture resulted in non-manufacture of

Case Dial Sight and Mount as of September 2000 and nugatory expenditure of Rs 41.03 lakh.

## 50. Production of stores without demand

**Manufacture of Jerricans and Bullet weighing and Gauging machine by Small Arms Factory Kanpur and Machine Tool Prototype Factory Ambernath respectively resulted in blockage of capital worth Rs 3.02 crore.**

In the following two cases the General Managers of Small Arms Factory Kanpur and Machine Tool Prototype Factory Ambernath manufactured Jerricans and four numbers each of Bullet Weighing and Bullet Gauging machines respectively which resulted in blockage of capital worth Rs 3.02 crore owing to non-disposal of these items as brought out below :

***Case I***

**Ordnance Factory Varangaon projected demand for Machines to OFB**

In order to replace existing Bullet Weighing machines and Bullet Gauging machines required in production of 7.62 mm ammunition the General Manager Ordnance Factory Varangaon projected to Ordnance Factory Board in January 1998 with a copy endorsed to the General Manager Machine Tool Prototype Factory Ambernath, his requirement for four each of Bullet Weighing and Bullet Gauging machines to be obtained from the latter.

**MTPF Manufactured Machines worth Rs 2.29 crore without covering demand from OFB**

Due to non-availability of sufficient work load the General Manager Machine Tool Prototype Factory Ambernath without receipt of authorisation from Ordnance Factory Board undertook manufacture of these machines in April 1998 and approached Ordnance Factory Board between July 1998 and November 1998 for early placement of covering demand or to accord go-ahead sanction for manufacture of four each of Bullet Gauging and Weighing machines. In September 1999 Ordnance Factory Board questioned the authority on which the General Manager Machine Tool Prototype Factory Ambernath initiated manufacturing action of the machines. However, the assembly of the eight machines was completed by January 2000 at a cost of Rs 2.29 crore.

Ministry of Defence while accepting the aforesaid facts stated in September 2000 that in order to avoid delay in supply of the machine and hampering the planned production programme at Ordnance Factory Varangaon the General Manager of Machine Tool Prototype Factory Ambernath initiated manufacturing action in anticipation of extract. Ministry also added that these machines will be utilised for 5.56 mm as well as 7.62 mm at Ordnance Factory Varangaon after suitably modifying the machines at an estimated total cost of Rs 40 lakh.

The contention of Ministry is not tenable since the action of General Manager Machine Tool Prototype Factory Ambernath to initiate action to manufacture machines worth Rs 2.29 crore without instructions from Ordnance Factory Board was irregular. The Ministry's contention regarding utilisation of machines for 5.56 mm as well as 7.62 mm after conversion does not provide any justification for the action of manufacturing machines for 7.62 mm ammunition since the Machine Tool Prototype Factory Ambernath had already issued eight Bullet Gauging and eight Bullet machines for 5.56 mm ammunition having a total capacity to produce 254 million rounds per annum to Ordnance Factory Varangaon as against latter's capacity of 75 million rounds per annum on single shift.

*Case II*

**OFB cleared clearance for production of 0.86 lakh Jerricans in anticipation of demand from civil trade**

General Manager Small Arms Factory Kanpur issued an order in May 1994 for manufacture of 20000 Jerricans 20 litres in his factory in anticipation of Civil trade order for 50,000 numbers and also approached Ordnance Factory Board in September 1994 for clearance for manufacture of one lakh Jerricans. Ordnance Factory Board in turn advised the Factory in November 1994 to manufacture outstanding order of 86864 Jerricans only against Army's order of April 1991 though the Army had in 1993 indicated that there is no requirement for Jerricans beyond 1993-94.

**Manufacture of Jerricans without actual demand resulted in blockage of Rs 72.81 lakh**

Small Arms Factory Kanpur manufactured 56890 Jerricans during 1994-95 and out of which 37058 Jerricans were sold to the Civil Trade and Ministry of Home Affairs up to June 2000 leaving 19832 Jerricans costing Rs 63.54 lakh in stock. Further the factory was holding components worth Rs 9.27 lakh in stock awaiting disposal/utilisation as of September 2000. Manufacture of Jerricans at Small Arms Factory Kanpur during 1994-95 even when Army intimated their non-requirement of Jerricans in 1993 and no civil trade order in sight was commented upon in audit.

Ministry of Defence stated in September 2000 that when the production of Jerrican of Small Arms Factory Kanpur was in full swing, the Army had intimated their unilateral decision for cancellation of Indent existing at that time. The contention of Ministry is not tenable since the Army had intimated well in advance their non-requirement of Jerricans in 1993 i.e. even before the production of 56890 Jerricans was undertaken at Small Arms Factory Kanpur in 1994-95.

Thus, imprudent decision of the General Manager Small Arms Factory Kanpur and its approval by the Ordnance Factory Board for manufacture of Jerricans without receipt of actual demands from trade/Services led to blockage of Rs 72.81 lakh towards holding of Jerricans and components in stock since 1994-95 at Small Arms Factory Kanpur.

## 51. Non-utilisation of material procured for production of a packing box

**General Manager Ordnance Factory Chanda failed to utilise materials worth Rs 90 lakh for manufacture of ammunition boxes as of August 2000 even after two years of purchase of timber & plywood.**

Ammunition container C-40A Boxes are being procured from trade regularly by Ordnance Factory Chanda for packing of shell 130 mm ammunition manufactured by them. Gun Carriage Factory Jabalpur also has requisite infrastructure for manufacture of packing boxes.

**OFCh procured materials for production of ammunition boxes**

In order to establish in-house manufacture of ammunition container C-40A boxes the General Manager Ordnance Factory Chanda procured 6.21 lakh Cubic Decimetre Timber Mango and 7281 sheets plywood from trade at a cost of Rs 1.02 crore by placing five supply orders between October 1997 and May 1998.

**OFCh could manufacture only 1000 ammunition boxes**

Ordnance Factory Chanda manufactured only 1000 boxes at an estimated cost of Rs 3081 each till August 2000. Factory was still holding stores worth Rs 90 lakh in their stock as of September 2000.

**OFCh procured ammunition boxes from trade to meet its commitments**

General Manager Ordnance Factory Chanda had procured 1.08 lakh ammunition container C-40A boxes from trade at unit cost of Rs 837 by placing seven supply orders between 1995 and December 1997. As the cost of manufacture of ammunition boxes at Ordnance Factory Chanda was very high in comparison to trade cost of the production of boxes in the factory was not only uneconomical but injudicious too. Moreover, if at all there was any need for manufacture of these boxes at Ordnance Factories the obvious choice would have been sister factories which have the requisite infrastructure to manufacture the ammunition boxes.

The Ordnance Factory Board stated in September 2000 that in-house production was considered only to buffer out the stock out situation due to non-arrival of this item ex-trade and depending on sister factories also would have resulted in the same. This contention of Ordnance Factory Board is not tenable since the Chanda factory could produce only 1000 boxes so far and was holding stores worth Rs 90 lakh in their stock owing to heavy load on the factory for manufacture of 155 mm ammunition and in view of this the Ordnance Factory Chanda ought to have offloaded manufacture of these boxes to Gun Carriage Factory Jabalpur or other sister factory for production of the same. Further, the Ordnance Factory Chanda ought to have foreseen the heavy load for 155 mm ammunition at their end before embarking on production of boxes.

Thus, action of the Ordnance Factory Chanda for procurement of raw material worth Rs 1.02 crore for production of Box C-40A and holding of stores valuing Rs 90 lakh in their stock without utilisation as of September 2000 was unnecessary and devoid of any justification.

The matter was referred to the Ministry of Defence in July 2000; their reply is awaited as of December 2000.

## Manufacturing

## 52. Suppression of abnormal rejection in production

**Suppression of abnormal rejection of Rs 6.37 crore in production by the General Manager Ordnance Factory Muradnagar needs investigation.**

In order to bring about uniformity in calculation of unavoidable rejection Ordnance Factory Board issued instructions for calculation of extra allowance on account of unavoidable rejection with reference to quantity ordered for production. In contravention of these instructions, the General Manager Ordnance Factory Muradnagar calculated rejection percentage based on processed quantity and suppressed abnormal rejection worth Rs 6.37 crore as shown below.

| Item | Normal rejection percentage | Ordered quantity (Nos) | Processed quantity (Nos) | Rejections (Nos) | Rejection percentage | | Qty. of avoidable rejection | Value (Rs in crore) |
|---|---|---|---|---|---|---|---|---|
| | | | | | w.r.t ordered quantity | w.r.t processed quantity | | |
| Bomb 250 kg. HSLD* | 50 | 250 | 503 | 253 | 101.20 | 50 | 127 | 1.10 |
| Bomb A/c Empty 1000 Lb | 35 to 40 | 627 | 979 | 352 | 56 | 36 | 120 | 1.22 |
| Head 125 mm MCD | 39 | 7687 | 12323 | 4636 | 60 | 38 | 1638 | 0.67 |
| Empty bomb body 81mm Mortar | 58 | 60700 | 141711 | 81011 | 133 | 57 | .46 lakh | 3.17 |
| Body for Gr.Hand/ Rifle 36m | 30 | 113000 | 158145 | 45145 | 40 | 29 | .11 lakh | 0.21 |
| | | | | | | | Total | 6.37 |

It may be seen that the rejection ranged from 40 to 133 per cent of the ordered quantity against the prescribed percentage of normal rejection of 30 to 58 per cent of ordered quantity which itself is extremely high considering the fact that the rejections took place in the casting stage which is just one of the several stages of manufacture of the items.

**Incorrect Accounting Methodology of calculating rejection percentage resulted in suppression of abnormal rejection of items worth Rs 6.37 crore at OFM**

Despite the abnormal rejection of 0.59 lakh castings worth Rs 6.37 crore, the General Manager suppressed the same by adopting calculation of rejection percentage with reference to processed quantity as against the Ordnance Factory Board's instruction of September 1990 emphasising the need for working out rejection percentage based on ordered quantity. As a result no Board of Enquiry was constituted by the General Manager, Ordnance Factory Muradnagar thereby foreclosing the prospect of investigating the reasons for high rate of rejection of castings and of taking siutable remedial measures. Although a Board of Enquiry was coustituted by Ordnance Factory Board in January 1997 to ascertain rejection percentage as per Ordnance Factory

* *High speed low drag*

Board's letter in respect of rejections of Rs 11.38 crore worth of 81 mm bomb body mortar commented in an earlier Audit Paragraph it stated that rejection was not calculated as per Ordnance Factory Board instructions of 1990 as estimate was not based on those instructions. It held that there was neither abnormal rejection nor any loss as it was well upto the UAR[#] of the estimate. The Board of Enquiry however did not examine why the Ordnance Factory Board's instructions had not been followed.

Ministry of Defence stated in November 2000 that the system of accounting rejection percentage at Ordnance Factory Muradnagar is in accordance with instruction of June 1960 issued by Controller of Defence Accounts wherein it had been left to the management to adopt the system based on either processed quantity or ordered quantity. Ministry however added that the factory was being instructed to initiate action to change over as per aforesaid instructions of September 1990 of Ordnance Factory Board. It is not clear if the import of the Ministry's reply was to condone the flouting of Ordnance Factory Board's instructions by the factory till date.

The failure of General Manager Ordnance Factory Muradnagar to follow fairly simple instructions regarding computation of the percentage of loss is not explicable and the incidence of such cases over a number of products in this factory in particular merits investigation by Ordnance Factory Board to rule out the possibility of malafide involving the stock position of raw materials.

In view of the end use of the items in question, the deliberate flouting of instructions about rejection levels assumes greater significance as pilferage of finished items could also be camouflaged as wastage, more so when top management and the Ministry of Defence seem unconcerned about the matter.

## 53. Loss due to defective manufacture of an ammunition

**Defective manufacture of an ammunition at Ordnance Factory Chanda resulted in abnormal rejection of ammunition worth Rs 6.06 crore.**

Ordnance Factory Chanda sustained a loss of Rs 6.06 crore due to defective manufacture of shell 105 mm IFG[#] HESH[@] ammunition and its subsequent rejection in proof as brought out below:-

Ordnance Factory, Chanda fills the empty shells of 105 mm IFG HESH ammunition received from Ordnance Factory Kanpur and sends the same to a Central Proof Establishment for proof before they are finally issued to the Army.

[#] *UAR - Unavoidable rejection*

[#] *Indian Field Gun*

[@] *High Explosive Squash Head*

Based on Army's indent of June 1988 Ordnance Factory Board authorised Ordnance Factory Chanda in October 1988 for manufacture and supply of 24000 shell 105 mm IFG HESH ammunition to a Central Ammunition Depot by March 1991. Owing to delay in execution of earlier extracts received from Ordnance Factory Board in respect of the same ammunition, Ordnance Factory Chanda undertook manufacture of shells only in 1994. The Factory filled 25221 empty shells received from Ordnance Factory Kanpur between January 1995 and February 1997 under 26 lots against four warrants issued between January 1995 and November 1996. Of the 25221 filled shells, 16091 were accepted and remaining 9130 were either rejected or expended in proof at a Central Proof Establishment leading to rejection of 36.20 per cent against normal rejection of 2.5 per cent. This resulted in abnormal rejection of 8585 shells valued at Rs 6.06 crore. These filled shells were rejected in plate proof[*] by the Central Proof Establishment due to improper scabbing[**].

**Manufacture of an ammunition at OFCh resulted in abnormal rejection worth Rs 6.06 crore**

The Controllerate of Quality Assurance the inspectorate for the subject ammunition in April 1997 attributed the failure of ammunition in plate proof to production process failure/lapse at Ordnance Factory Chanda and advised the General Manager Ordnance Factory Chanda to set up an investigation committee involving designer i.e. Armament Research and Development Establishment Pune, empty shell manufacturer i.e. Ordnance Factory Kanpur, Ordnance Factory Chanda and concerned Quality Controllerates to ascertain the reasons for such failure and suggest corrective measures for obviating such recurrences. The General Manager Ordnance Factory Chanda accordingly constituted an investigation committee in April 1997. The committee carried out certain tests and suggested certain procedures for rectification of the rejected lots.

**Investigation Committee suggested to rectify rejected ammunition**

Ordnance Factory Chanda rectified one rejected lot at a cost of Rs 4.85 lakh in December 1998 which was also rejected during plate proof at Central Proof Establishment in January 1999 due to unsatisfactory performance. As a result the Controllerate of Quality Assurance directed the General Manager Ordnance Factory Chanda in January 1999 to investigate the matter thoroughly and suggest remedial measures to arrest the failure of the store in plate proof which was awaited as of August 2000.

**One rejected lot rectified at Rs 4.85 lakh by OFCh also failed in proof test**

Ordnance Factory Board stated in August 2000 that 105 mm IFG HESH which were rejected in proof were filled and assembled as per laid down procedure and inspection coverage provided by the inspectorates and hence the rejection of ammunition owing to process failure/lapse was not agreed to. This contention of Ordnance Factory Board is not tenable in view of the rejection of 9130 shells in proof.

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(*) *Plate proof is a process whereby proof samples are fired against 120mm thick rolled homogenous steel Armour plate placed at a distance of 90m to 120m from the gun.*

(**) *Scabbing is a process wherein HESH ammunition hits the armoured plates giving away seal of the plate.*

The matter was referred to the Ministry of Defence in June 2000; their reply was awaited as of December 2000.

## 54. Loss due to inefficient processing of input material

**Due to inefficient processing Ordnance Factory Ambernath generated excess scrap during manufacture of brass cups in 1998-99 resulting in loss of Rs 4.05 crore.**

Inefficient processing of brass coil for manufacture of brass cups at Ordnance Factory Ambernath led to excessive generation of scrap resulting in loss of Rs 4.05 crore as brought out below:-

**Estimates catered for out put of one tonne cups per 2.17 tonne coils i.e. 54 per cent scrap**

The General Manager Ordnance Factory Ambernath started manufacture of Brass Cups KF 31A required by Ammunition Factory Kirkee for use in production of 5.56 mm cartridge cases from 1995-96. The estimates of August 1997 provided for manufacture of one tonne acceptable brass cups from 2.17 tonne brass coils implying that 54 per cent of the brass coil would become scrap.

**Estimate was revised stipulating out put of one tonne cup from 4.545 tonne coils i.e. 78 per cent scrap plus deviated cups**

The General Manager Ordnance Factory Ambernath revised the estimate in June 1998 for one tonne acceptable brass cups from 2.17 tonne to 4.5450 tonne coils. The revised estimates stipulated that apart from realising one tonne acceptable brass cups from the input of 4.5450 tonne brass coils, 1.3634 tonne deviated cups and 2.1816 tonne brass scrap shall also be recovered.

**OFA did not realise any deviated cups from 936.28 tonne input material.**

Ordnance Factory Ambernath used 936.28 tonne brass coils for manufacture of 206 tonne acceptable brass cups during 1998-99. Remaining 730.28 tonne brass coil became scrap. Thus 78 per cent of brass coil became scrap which is well beyond the stipulated level of unavoidable rejection.

Ministry of Defence stated in August 2000 that the dimensional tolerances provided for the cups were very stringent and due to limitation of tolerances on input material and also that of tools, a major portion of the cups produced was falling beyond specified limits. Ministry of Defence further added that based on experience and improvement in input material and toolings, the yield subsequently improved and the estimate was revised downward and that no further investigation was needed. The contention of Ministry of Defence is not tenable as manufacture of brass cups was not a new activity for Ordnance Factory Ambernath and the factors like stringent dimensional tolerances, limitation of tools etc should have been taken into account while arriving at original estimates; the revised estimates provided further lee way to the factory.

Ministry's contention that no further investigation was needed is also questionable because even in 1999-2000 out of 3860.634 tonne brass strip only 1358.22 tonne acceptable cups could be produced resulting in generation of scrap to the extent of 65 per cent of input material which is still well beyond the stipulated level of unavoidable rejection.

Audit, therefore, recommends that abnormal scrap generation does need to be investigated for finding out causes of such high generation of scrap and for taking suitable remedial steps.

## 55. Loss due to defective manufacture

**During filling of 4007 shells of an ammunition at Ordnance Factory Chanda there was abnormal rejection of 3153 units involving loss of Rs 39 lakh although no rejection was permissible at filling stage.**

Ordnance Factory Chanda receives empty shells of 105 mm IFG BE smoke ammunition from Ordnance Factory Ambajhari and Gun and Shell Factory Cossipore, duly cleared in inspection by the inspectorates. Ordnance Factory Chanda thereafter fills the empty shells and issues the same to the Central Proof Establishment Itarsi for proof firing duly cleared in inspection by the Senior Quality Assurance Establishment (Armaments) Chanda, before these are finally despatched to the ultimate consignee. The Senior Quality Assurance Establishment (Armament), Chanda comes under the administrative Wing of the Controllerate of Quality Assurance (Ammunition) Kirkee who with a Central Proof Establishment are both responsible to the Director General of Quality Assurance Ministry of Defence New Delhi.

**OFB authorised OFCh in June 1983 to manufacture 105 mm shell BE Smoke for CAD Pulgaon**

Based on Army's indent of October 1979 Ordnance Factory Board authorised Ordnance Factory Chanda in June 1983 to manufacture and supply 12600 numbers of 105 mm shell BE Smoke to the Central Ammunition Depot Pulgaon. In order to manufacture 12600 shells of this ammunition Ordnance Factory Chanda issued six warrants between February 1991 and March 1995 against which 13800 shells were produced between September 1993 and January 1996. The delay in manufacture against Ordnance Factory Board's extract of June 1983 by Ordnance Factory Chanda was attributed to delay in establishing these ammunition and liquidating the outstanding orders against earlier extracts. Of 13800 shells manufactured, 3153 shells were rejected in filled proof by the Central Proof Establishment Itarsi in March 1994 and July 1996. As the estimate governing filling of ammunition did not envisage any rejection, the entire rejected quantity of 3153 ammunition valuing Rs 1.07 crore was abnormal rejection. The loss was later reduced to Rs 39 lakh by Ordnance Factory Chanda after salvaging the components from rejected shells which was issued/under issue to Ordnance Factory Dehu Road for manufacture at latter's end.

**3153 nos ammunition were rejected in proof due to various defects**

In the meantime, during the "brain storming" conducted in presence of representatives of both Ordnance Factory Chanda and Senior Quality Assurance Establishment (Armament) Chanda in two sessions in October 1997, it was decided to carry out modification for trial/projection proof with a view to eliminating the defects. As considerable improvements were noticed in static/projection proof of filled ammunition it was decided to rectify initially one filled lot and send the same for dynamic proof at Central Proof Establishment Itarsi before carrying out rectification of remaining lots. Ordnance Factory Chanda accordingly rectified one rejected lot at an expenditure of Rs 1.20 lakh which however was also rejected in proof.

**OFCh constituted Board of enquiry for investigating the rejections**

The General Manager Ordnance Factory Chanda constituted a Board of Enquiry in September 1999 to ascertain the reasons for rejection of ammunition.

Ordnance Factory Board while accepting the aforesaid facts stated in September 2000 that report of Board of Enquiry in respect of rejected lots was under progress/review.

The matter was referred to the Ministry of Defence in July 2000; their reply is awaited as of December 2000.

## 56. Delay in manufacture of bridge

**Placement of order on Ordnance Factory Ambajhari by the Ministry of Defence for manufacture of four Assault Bridges without fully developed design resulted in delayed manufacture and cost overrun of Rs 2.33 crore.**

The Ministry of Defence placed an order on Ordnance Factory Ambajhari for indigenous manufacture of Manually Launched Assault Bridge without fully developing and finalising the design. As a result there were frequent and numerous design changes leading to delay in production of the Bridge and cost overrun of Rs 2.33 crore at Ordnance Factory Ambajhari as brought out below:-

**MOD placed an order on Ordnance Factory Ambajhari in August 1994 for Manually Launched Assault Bridge**

Ministry of Defence, Department of Defence Production and Supplies, New Delhi placed an order in August 1994 on Ordnance Factory Ambajhari for manufacture and supply of four sets of Manually Launched Assault Bridge at a total cost of Rs 10.42 crore to Engineers Store Depot, Delhi as per drawings/specifications mentioned in the order. The order interalia stipulated that Ordnance Factory Ambajhari would submit a pilot sample of the bridge by June 1995, and bulk supply at the rate of one bridge per quarter after bulk production clearance by Research and Development Establishment (Engineers), Pune. Each set of the Bridge consisted of eight primary components and 32 secondary components involving 44 types of extrusions of high strength Aluminium Alloy, 656 forgings and seven types of plates.

**Factory could submit pilot sample only in December 1998**

Ordnance Factory Ambajhari could submit a pilot sample of the bridge manufactured at a cost of Rs 4.94 crore against an estimated original cost of Rs 2.61 crore to Research and Development Establishment (Engineers), Pune for evaluating the performance of the bridge in static tests, launching and

**Pilot sample was yet to be cleared**

delaunching trials and passing of live load in December 1998 as against stipulated period of June 1995. The pilot sample of the bridge supplied by Ordnance Factory Ambajhari was cleared in all tests and trials by November 1999 except for minor works like repainting of some components, replacement of a few pins, clearance of pallets and inspection of some spare parts. The pilot sample of the bridge was, however, yet to be cleared for bulk production by the Research and Development Establishment (Engineers) Pune as of September 2000. Delivery schedule in respect of first set of pilot sample of bridge was sought to be extended up to March 2001.

**Delayed submission of pilot sample led to cost overrun of Rs 2.33 crore**

Delayed manufacture of pilot sample of bridge by Ordnance Factory Ambajhari thus resulted in cost overrun of Rs 2.33 crore. The manufacture of second bridge was under progress at Ordnance Factory Ambajhari.

**Factory attributed delayed submission of bridge to frequent changes in design by the designer**

General Manager Ordnance Factory Ambajhari stated in March 2000 that the abnormal delay in completion of pilot sample of bridge was attributable to drawings for jigs/fixtures/Gauges not being made available by Research and Development Establishment (Engineers) Pune, lack of inspector at site resulting in belated inspection and incorporation of more than 856 amendments in the drawings originally received from Research and Development Establishment (Engineers) Pune. Ordnance Factory Ambajhari further added that cost overrun was owing to delay in manufacture/supply/clearance of pilot sample of bridge and they were entitled to price escalation in terms of Ministry of Defence's order of August 1994.

**Designer stated that changes in design are minor and are part of TOT**

Though the Ordnance Factory Board accepted the aforesaid facts in September 2000, the Research and Development Establishment (Engineers), Pune stated in July 2000 that major delay in clearance of pilot sample of bridge was due to delay in clearance of Ordnance Factory Ambajhari's welders who have failed to qualify the specified tests till December 1995. They further added that they had expressed doubts on the capability of the factory to under take fabrication when factory's quote was received, changes in the drawings were a part of transfer of technology before freezing the drawings for bulk production and were minor and decisions on changes were given without loss of time.

**Ministry accepted numerous amendments in drawings resulted in delay**

Ministry of Defence in October 2000 accepted that numerous amendments in the drawings by Research and Development Establishment Pune resulted in delay in production of bridge at Ordnance Factory Ambajhari and cost overrun of Rs 2.33 crore.

## 57. Loss due to rejection of Primers in proof

**8205 empty primers manufactured and supplied by Gun and Shell Factory Cossipore to Ammunition Factory Kirkee were rejected by the latter resulting in loss of Rs 45.50 lakh.**

Ammunition Factory Kirkee placed three demands in March 1991, July 1995 and September 1997 on Gun and Shell Factory Cossipore for 25900 empty Primers electric No.17 MKN4. Execution profile of aforesaid demands of Ammunition Factory Kirkee by Gun and Shell Factory Cossipore revealed the following.

| Lot No. | Issued quantity | Accepted quantity at AFK | Quantity rejected at AFK |
|---|---|---|---|
| (1) | (2) | (3) | (4) |
| 1. | 1870 | 1870 | – |
| 2. | 2140 | 2140 | – |
| 3. | 2136 | 2136 | – |
| 4. | 2140 | 2140 | – |
| 5. | 2180 | – | 1670 |
| 6. | 2180 | – | 1762 |
| 7. | 2180 | – | 1741 |
| 8. | 2040 | – | 2000 |
| 9. | 2040 | 2040 | – |
| 10. | 2040 | 2040 | – |
| 11. | 2040 | 988 | 1012 |
| 12. | 2040 | 1862 | 138 |
| 13. | 2000 | 918 | 1082 |
| **Total** | **27026** | **16134** | **9405** |

Based on proof result 9405 empty primers were rejected and backloaded to Gun and Shell Factory Cossipore by Ammunition Factory Kirkee in June 1994 and April 1998. Though Gun and Shell Factory Cossipore undertook rectification of 5173 rejected primers of 2 lots the rectification in respect of rejected primers pertaining to 6 other lots was not undertaken since these primers were declared obsolete in December 1998. Out of 5173 empty primers rectified by Gun and Shell Factory Cossipore only 2450 units were passed in inspection and sent to Ammunition Factory Kirkee in March 1996 against which 1250 primers were again rejected in double reproof.

**Primers worth Rs 45.50 lakh supplied by GSF were rejected in proof due to various defects**

Thus, defective manufacture of empty primers at Gun and Shell Factory Cossipore resulted in rejection of 8205 units valuing Rs 45.50 lakh. Out of this loss of Rs 45.50 lakh, rejection of 4272 primers could have been avoided had the Gun and Shell Factory Cossipore taken suitable remedial measures when 6540 primers including 1367 units expended in proof had failed in proof in December 1992. Besides, such large scale rejection at users end despite clearance from local inspection authorities at Cossipore, puts a question mark on the efficacy of inspection process.

Ordnance Factory Board stated in October 2000 that primer lots manufactured by Gun and Shell Factory Cossipore were duly inspected and cleared by local inspectorates.

The matter was referred to the Ministry of Defence in August 2000; their reply was awaited as of December 2000.

## Provisioning of Stores and Machinery

### Stores

### 58. Avoidable import of stores

**Import of Mounting of Automatic control units by the General Manager Heavy Vehicles Factory Avadi despite the item having been indigenously developed led to outgo of foreign exchange of Rs 18 lakh.**

The General Manager Heavy Vehicles Factory Avadi despite indigenous availability of mounting for Automatic Control Units, imported 100 Units causing avoidable foreign exchange outgo of Rs 18 lakh besides incurring an extra expenditure of Rs 10.65 lakh as brought out below:

**Mounting of Automatic Control Unit of T-72 tanks already developed indigenously by March 1994**

Hull electronic is one of the items used in the manufacture of T-72 tanks at Heavy Vehicles Factory Avadi. Stone India Limited had developed this item and supplied 130 sets to Heavy Vehicles Factory during March 1994 to March 1996. The firm supplied 105 sets of mounting for Automatic Control Unit which is a part of hull electronic at Rs 7200 each between September 1996 and March 1997 to Heavy Vehicles Factory Avadi against their local purchase order of February 1996.

Despite successful development indigenously by Stone India Limited Calcutta, the General Manager Heavy Vehicles Factory, Avadi concluded a contract with a foreign firm in April 1998 and received 100 sets of Automatic Control Unit at US $ 500 each between October 1998 and February 1999.

**HVF imported Automatic Control Unit on account of irregular supplies from indigenous sources**

**Justification given for importation ignored established indigenous source**

The need for import order of April 1998 was attributed to receipt of only part quantity from Stone India Limited, Calcutta against Ministry of Defence's earlier order of April 1988 and non receipt of supplies from two other firms against orders placed in October 1996. The statement regarding part supply from Stone India Limited was factually incorrect since they not only supplied entire ordered quantity of 130 sets against order of April 1988 between March 1994 and March 1996, but also successfully supplied 105 sets to the Heavy Vehicles Factory Avadi against Local Purchase Order of February 1996 at Rs 7200 each between September 1996 and March 1997.

General Manager Heavy Vehicles Factory Avadi further procured 100 sets of mounting for Automatic Control Unit from Stone India Limited Calcutta at

Rs 7350 each against their order of April 1998 between June 1999 and October 1999.

**Importation involved avoidable outgo of FE of Rs 18 lakh besides extra expenditure of Rs 10.65 lakh**

Thus, as a result of import of 100 sets of Mounting of Automatic Control Unit from the foreign firm at Rs 18,000 each the General Manager Heavy Vehicles Factory Avadi not only caused an avoidable foreign exchange outgo of Rs 18 lakh but also incurred an extra expenditure of Rs 10.65 lakh which could have been avoided had the mounting of Automatic Control units been procured from Stone India Limited, Calcutta.

Ordnance Factory Board stated in August 2000 that dues existed from other suppliers on whom Ministry of Defence orders existed, and the need for import order was felt taking into account the requirements and stock as existed at that time. Ordnance Factory Board further added that taking into account the production requirements vis-a-vis receipts anticipated from pending supply orders clearance was given in July 1997 for import of 100 sets.

The contention of Ordnance Factory Board is not tenable since another indigenous firm i.e. Genmot (India) had also commenced supplies of the item before placement of import order and the order could have been distributed between Stone India Limited, and Genmot (India) instead of resorting to import.

The matter was referred to the Ministry of Defence in June 2000; their reply was awaited as of December 2000.

## 59. Avoidable evaporation loss of volatile liquid due to excess procurement

**Excess procurement of ammonia anhydrous by High Explosives Factory Kirkee resulted in avoidable evaporation loss of Rs 15.40 lakh.**

**GM, HEF Kirkee Purchased Ammonia Anhydrous in excess of requirement**

The General Manager High Explosives Factory Kirkee in order to manufacture 2594 tonne of six items during 1998-99, for which the requirement of ammonia anhydrous was 1134 tonne, procured 1095 tonne ammonia anhydrous. With the availability of 2.982 tonne liquid ammonia in stock as of 31 March 1998, the dues-in of 450 tonne from regular suppliers and maintenance of 45 days stock level of 141.75 tonne, the net quantity of liquid ammonia to be procured during 1998-99 was 823 tonne. However, General Manager procured 1095 tonne liquid ammonia during 1998-99 against the net requirement of 823 tonne. The opening balance of Ammonia Anhydrous remained between 341 and 603 tonne during May 1998 to March 2000. Ordnance Factory Board had issued instructions in December 1998 to regulate supply of Ammonia Anhydrous so as to maintain 45 days requirement at a time. Based on this, the stock to be kept at a time in 1998-99 and 1999-2000 worked out to 141 tonne and 91 tonne respectively.

Ammonia Anhydrous being a volatile liquid, Government have authorised two *per cent* unavoidable evaporation loss on opening balances and receipts during each month. Overstocking of liquid results in avoidable evaporation loss.

**Avoidable evaporation loss due to excess stocking was Rs 15.40 lakh**

Due to excess purchase of Ammonia Anhydrous, General Manager High Explosives Factory Kirkee wrote off evaporation loss of 155.760 tonne liquid Ammonia Anhydrous valuing Rs 15.40 lakh over and above the loss on 45 days stock during May 1998 to March 2000.

Ministry of Defence stated in August 2000 that the high stocking of Ammonia Anhydrous during 1998-99 and 1999-2000 at High Explosives Factory Kirkee was due to shut down of plant for repairs and non materialisation of orders for TNT. The contention of Ministry of Defence was not tenable as despite shut downs of plant during July to December 1998 and July to December 1999 factory placed order for 195 tonne in February 1999 and procured 135 tonne during February and March 2000.

## 60. Avoidable procurement of precipitating pans

**Ammunition Factory Kirkee projected their requirement of a chemical at unrealistic level on High Explosives Factory Kirkee which led to unnecessary procurement of two precipitating pans at a cost of Rs 48.35 lakh.**

Projection of unrealistic requirement of lead styphnate wet by the Ammunition Factory Kirkee resulted in unnecessary import of two precipitating pans at a cost of Rs 48.35 lakh by High Explosives Factory Kirkee as brought out below.

**AFK projected annual requirement of 4486 kgs of a chemical on HEF**

Ammunition Factory Kirkee projected to High Explosives Factory Kirkee in May 1992 their annual requirement of lead styphnate as 4486 kilograms for use in manufacture of primers of three types of ammunition by wet filling process.

**HEF Kirkee procured two pans costing Rs 48.35 lakh to meet the requirement**

High Explosive Factory Kirkee in order to meet the requirement of lead styphnate projected by Ammunition Factory Kirkee submitted a proposal in September 1994 to Ordnance Factory Board for procurement of three precipitating pans which included two under New Capital grant and one precipitating pan under Renewal and Replacement grant to replace the existing pan which had become a safety risk and beyond economic repair. Ordnance Factory Board accorded sanction in December 1997 for procurement of three precipitating pans by High Explosives Factory Kirkee.

Even though more than five years had elapsed since Ammunition Factory Kirkee projected its requirement in May 1992, the High Explosives Factory, Kirkee did not ask Ammunition Factory Kirkee to reconfirm their projected requirement but placed an import order in December 1997 on a foreign firm and procured three precipitating pans costing Rs 72.52 lakh in November 1998. Out of three precipitating pans, High Explosive Factory Kirkee commissioned one pan in August 1999, another pan in October 2000 and the remaining pan which was yet to be commissioned is being kept as an unerected standby for use in case of an emergency.

**The actual drawal of chemical by AFK from HEF was far less than projected requirement**

**HEF could meet the maximum requirement of chemical with one new pan**

As against the projected requirement of 374 kilograms of lead styphnate wet per month Ammunition Factory Kirkee actually drew on an average 80 to 100 kilograms lead styphnate per month during 1995-96 to 1999-2000 and High Explosives Factory Kirkee could meet the requirement of lead styphnate wet with one new and one existing precipitating pan till September 2000. Therefore, the import of two precipitating pans costing Rs 48.35 lakh was unnecessary. Further examination revealed that requirement of 374 kilograms lead styphnate wet per month for Ammunition Factory Kirkee was unrealistic as (i) the production of one type of ammunition was discontinued since 1994-95 by offloading the same to Ordnance Factory Varangaon, (ii) production of primer for another ammunition was being carried out by using mercury fulminate instead of lead styphnate and (iii) requirement of lead styphnate at Ammunition Factory Kirkee to manufacture the third type of ammunition primer was only 88 kilogram per month.

Ministry of Defence admitted in October 2000 that while the requirement of pans underwent change due to discontinuation of production of one ammunition and production of primer for other ammunition, requirement of wet lead styphnate at Ammunition Factory Kirkee to manufacture the third type of ammunition primer was around 150 kg per month. However, since the High Explosives Factory Kirkee manufactured and supplied 158.40 kg lead styphinate to Ammunition Factory Kirkee in March 2000 with one new pan and one pan diverted from existing three pans being used for manufacture of dry lead styphnate, action to procure two additional precipitating pans was not at all justified.

## 61. Injudicious procurement of tripods not required by users

**Procurement of 150 tripods costing Rs 22.50 lakh by the General Manager Ordnance Factory Medak was injudicious since the tripods were not requried by users.**

The General Manager Ordnance Factory Medak procured 150 Launcher Tripod for BMP-IIK Vehicles at a cost of Rs 22.50 lakh even in 1996 though the Army had not been accepting them since March 1993.

Ordnance Factory Medak has been manufacturing BMP-IIK vehicles since 1992-93 and supplies these vehicles to Army alongwith certain spare parts, tools and accessories.

**Army was not accepting tripod since March 1993**

As per technological documents for BMP-IIK tripod did not form part of the BMP-IIK vehicles. Army had been refusing to accept BMP-IIK Vehicles with launcher tripods since March 1993 and had been accepting BMP-IIK vehicles without launcher tripods.

**Launcher Tripods was proposed to be deleted from the list of equipments in January 1995**

The Controllerate of Quality Assurance (Infantry Combat Vehicle) Medak proposed to Ministry of Defence an amendment in the list of spare parts, tools and accessories of BMP-IIK in January 1995 deleting the requirement of launcher tripod with a copy endorsed to the General Manager Ordnance Factory Medak. Despite proposed deletion of launcher tripod from the list of spare parts, tools and accessories and the fact that Army had been refusing to accept launcher tripods the General Manager Ordnance Factory Medak placed an order in June 1996 on Bharat Dynamics Limited, Bhanur for procurement of 215 launcher tripod at unit cost of Rs 15000.

**OFPM procured 150 tripods costing Rs 22.50 lakh from BDL against order of June 1996**

Bharat Dynamics Limited Bhanur supplied 150 launcher tripod costing Rs 22.50 lakh by June 1998. The General Manager Ordnance Factory Medak reduced the scope of its order of June 1996 by 65 tripods in December 1998. The General Manager Ordnance Factory Medak was forced to hold 300 tripods including 150 tripods against its order of June 1996 as of February 2000. The stock of tripods is likely to be reduced by 59 nos after executing Army's indent for 59 BMP-II vehicles in 2000-2001.

The Additional Director General Ordnance Factories, Armoured Vehicles Headquarters, Avadi stated in July 2000 that Ordnance Factory Medak came to know about non-requirement of tripod for BMP-IIK only in August 1998 from Authority Holding Sealed Particulars. He added that the matter regarding issue of tripods to Army had been taken up with Army Headquarters who inturn had taken up the matter with their units. The decision of Army was awaited as of November 2000.

The contention regarding formal deletion of tripod in 1998 is not tenable as technological documents did not include tripod for BMP-IIK nor was it acceptable to users.

Ministry of Defence stated in November 2000 that remaining 241 tripods were proposed to be issued to Army Headquarters who have taken up the matter with their units and Bharat Dynamics Limited Bhanur during their visit to one of the Army unit recommended placing of launcher on tripod to avoid any damage to launcher during handling and transporting.

Ministry of Defence's contention is only an assurance that the existing tripods would be used but does not provide any valid reason for procurement of these tripods against Ordnance Factory Medak's order of June 1996 when they were aware that tripods are not required/accepted by the Army since March 1993. Thus, procurement of 150 Launcher Tripods from Bharat Dynamics Limited Bhanur at a cost of Rs 22.50 lakh against an order of June 1996 by the factory was injudicious.

## Machinery

### 62. Non-commissioning of costly imported machine

**A computer numerically control machine imported at a cost of Rs 1.14 crore by Metal and Steel Factory Ishapore is uncommissioned since its erection in May 1996.**

Metal and Steel Factory Ishapore failed to commission a Computer Numerically Controlled Flow Forming Machine imported at a cost of Rs 1.14 crore since its erection at the factory in May 1996.

**MSF placed an import order for purchase of flow forming machine in September 1993**

**Erection of machine completed by foreign firm in May 1996 and Rs 1.14 crore was paid**

**Firm's engineer could prove only four out of seven components by August 1997**

Metal and Steel Factory Ishapore was entrusted with the establishment and production of metallic liners/components of different dimensions. Thereafter the factory concluded a contract with a foreign firm in September 1993 for supply, erection and commissioning of Computer Numerically Controlled Flow Forming machine at a cost of Rs 1.34 crore. The terms of payment provided for release of 80 per cent payment on proof of despatch without any regard to operational fitness of the machine. The erection of the machine was completed by the firm in May 1996. The firm proved only four of seven components between May 1996 and September 1997. In the meantime Rs 1.14 crore being 80 per cent of the contracted amount was paid to the firm by the factory by March 1998. Even though the firm had failed to fulfil its contractual obligations, the factory did not take any penal measure against the firm and merely kept requesting the firm time and again i.e. in September 1997, October 1997, November 1997 and January 1998 to prove the remaining three components and rectify the defects for final commissioning of the machine in terms of the contract. The firm failed to comply.

**MSF approached Indian Embassy for chasing the foreign firm**

The Factory therefore approached the Indian Embassy through Ordnance Factory Board in January 1998/February 1998 to take up the matter with the firm. The Indian Embassy, however, expressed its inability in February 1998 to pursue the case further stating that the firm had filed for bankruptcy and there was no mechanism which could force a defaulting company into honouring its obligation. The High Commission was again being approached as of September 2000 to check up regarding possibility of further assistance from the firm.

Thus, possibility of commissioning of the machine was remote and as a result the investment of Rs 1.14 crore towards its 80 per cent payment already made remained un-productive for the last four years.

Ordnance Factory Board in September 2000 stated that the machine was presently being used for manufacture of two components which were proved in 1996. They did not indicate as to how the requirements were being met in the absence of the complete machine.

The matter was referred to the Ministry of Defence in August 2000; their reply was awaited as of December 2000.

## 63. Avoidable import of engines

**Despite engines being available from Engine Factory Avadi the General Manager Heavy Vehicles Factory Avadi resorted to import and incurred an avoidable extra expenditure of Rs 2.97 crore besides avoidable foreign exchange outgo of Rs 7.69 crore.**

**Heavy Vehicles Factory was to supply chassis of Armoured Recovery Vehicles to BHEL who placed order in December 1993 on the former for 35 chassis**

Bharat Heavy Electricals Limited Trichy was identified as the nodal agency for manufacture and supply of Armoured Recovery Vehicle to the Army with Heavy Vehicles Factory Avadi as supplier of chassis.

Ministry of Defence concluded a contract with Bharat Heavy Electricals Limited Trichy in November 1993 for supply of 50 vehicles of which 15 vehicles were to be imported in fully assembled condition and remaining 35 vehicles to be indigenised gradually. Bharat Heavy Electricals Limited Trichy with a view to indigenise manufacture of vehicles, placed an order in December 1993 on Heavy Vehicles Factory Avadi for supply of 35 chassis by June 1995.

**Engine Factory Avadi accepted to supply engines to Heavy Vehicles Factory**

As the engines required for vehicles were the T-72 tank engines being manufactured at Engine Factory Avadi, the General Manager Heavy Vehicles Factory Avadi, approached the former in August 1993 for supply of engines. The General Manager Engine Factory Avadi confirmed in October 1993 that they could supply the requisite engines for Armoured Recovery Vehicles.

**Heavy Vehicles Factory placed demand on EFA as well as Bharat Heavy Electricals Limited for supply of engines**

The General Manager Heavy Vehicles Factory Avadi accordingly projected a requirement in February 1994 for 35 engines to Engine Factory Avadi with the request to supply the engines during 1994-95. General Manager Heavy Vehicles Factory Avadi also proposed to Bharat Heavy Electricals Limited, Trichy in April 1994 for import of 35 engines and requested Bharat Heavy Electricals Limited Trichy for import of 15 engines in April 1994 and for 20 engines in December 1994 to meet the production programme of 1994-95 and 1995-96.

**AVHQ did not accept purchase of engines through Bharat Heavy Electricals Limited**

**Bharat Heavy Electrical Limited did not cancel order due to contractual obligation**

Additional Director General of Ordnance Factory, Armoured Vehicle Headquarters Avadi, however, categorically turned down the proposal for import of engines in December 1994 stating that Engine Factory Avadi must supply the engines. The General Manager Heavy Vehicles Factory Avadi, therefore, approached Bharat Heavy Electricals Limited, Trichy in January 1995 for deletion of their order of December 1994 for importation of 20 engines but by that time the latter had entered into contractual obligation. Heavy Vehicles Factory Avadi accordingly received all the 35 imported engines costing Rs 24.39 lakh each from Bharat Heavy Electricals Limited Avadi in December 1994 and October 1995.

**Import of engines was uneconomical by Rs 2.97 crore when compared to EFA cost**

As the average cost of production of engines at Engine Factory Avadi during 1994-95 and 1995-96 was Rs 15.90 lakh each, the import of 35 engines by the Heavy Vehicles Factory Avadi through Bharat Heavy Electricals Limited Trichy not only involved an avoidable foreign exchange outgo of Rs 7.69 crore but also resulted in an extra expenditure of Rs 2.97 crore which could have been avoided had these engines been procured from Engine Factory Avadi.

Ministry of Defence stated in September 2000 that import action of engines was taken since use of indigenous engines was held up due to problems of low oil pressure and other problems related to engines. Ministry of Defence's contention is not tenable as Engine Factory Avadi besides supplying 245 engines to Heavy Vehicles Factory Avadi during 1993-94 to 1995-96 had also supplied 111 engines to the Central Armoured Fighting Vehicle Depot Kirkee around the same period and those engines were utilised at Heavy Vehicles Factory in the production of T-72 tanks and no adverse remarks on engines supplied to the Central Armoured Fighting Vehicle Depot Kirkee were received by Engine Factory Avadi. Besides, the problem of low oil pressure on the engines supplied by Engine Factory Avadi to Heavy Vehicles Factory Avadi was noticed only in January/February 1996 and could be attributed to negligent operations of the engines, without switching on the oil priming pump.

## Inspection

### 64. Loss due to lax process control

**Lax process control coupled with laxity in Quality Control at certain Ordnance Factories led to rejection of stores worth Rs 3.85 crore at consignee factories' end.**

In the following four cases the stores passed in inspection at one factory were rejected at another factory resulting in loss of Rs 3.85 crore. Audit therefore recommends that Ministry of Defence review the inspection parameters and investigate rejections at Ordnance Factories, preferably by a committee comprising of Metallurgists and specialists including academician to avoid such rejections.

*Case I*

**Rejection of Die Castings commented in Para-37 of Report No.8 of 1996**

Mention was made in Paragraph 37 of Report No.8 of 1996 of the Comptroller and Auditor General of India, Union Government, Defence Services (Army and Ordnance Factories) regarding rejection of 4920 aluminium die castings of 84 mm ammunition valuing Rs 34.26 lakh supplied by Ordnance Factory Ambajhari to Gun and Shell Factory Cossipore for the intermediate stage of machining operation.

In their Action Taken Note of October 1998, Ministry of Defence repeated their earlier stand of 1995 that with a view to bring down the rejection of castings, close monitoring of various parameters of the casting process had been implemented and rejection percentage had come down to normal level.

**Continued rejection of further die castings worth Rs 76.57 lakh at GSF**

Further examination revealed that 17781 die castings valuing Rs 76.57 lakh received from Ordnance Factory Ambajhari at Gun and Shell Factory Cossipore in connection with supply of 84 mm projectiles against Ordnance Factory Khamaria's demand of February 1994 and November 1996 were rejected at Gun and Shell Factory Cossipore during machining operation. These were covered by replacement orders during August 1995 to February 1998.

In order to ascertain the reasons for rejection of die castings received from Ordnance Factory Ambajhari, Gun and Shell Factory Cossipore constituted four Boards of Enquiry between August 1995 and March 1998. All the Boards of Enquiry in their reports of July 1996, December 1996 and November 1998 attributed rejection of die castings due to blow holes and eccentricity and concluded that the rejected die casting cannot be salvaged and used for alternate purpose. As a remedial measure the Boards of Enquiry recommended introduction of radiology test in blow hole zones and strict process control at Ambajhari.

Ministry of Defence stated in August 2000 that technical steps were undertaken for improving the quality of castings and as a result the rejection percentage has come down. Ministry of Defence, however, did not explain as to how castings duly passed by Quality Control of Ambajhari Factory failed during machining stage at Gun and Shell Factory Cossipore.

Thus, abnormal rejection of die castings cleared in inspection continued due to laxity in process control.

***Case II***

Investment Castings are used for manufacture of nine components of 5.56 mm rifle. Rifle Factory Ishapore received 1.46 lakh investment castings from Ordnance Factory Medak up to August 1998 against their fifteen Demands for 2.35 lakh castings placed between June 1993 and July 1997.

**RFI rejected 0.44 lakh castings due to blow-holes etc**

After rough machining, 1.02 lakh castings were accepted and the remaining 0.44 lakh castings valued at Rs 78.16 lakh were rejected due to blow-holes, cracks and dimensional difference, etc.

**RFI returned 0.44 lakh rejected castings to Medak factory**

Rifle Factory Ishapore returned 0.37 lakh rejected castings to Ordnance Factory Medak between October and December 1998 and 0.07 lakh castings in March 2000.

Meanwhile Rifle Factory short-closed all the fifteen demands between January 1997 and November 1998 at the supplied quantity.

**OFMK sent back rejected castings to RFI**

Ordnance Factory Medak sent back all the 0.37 lakh rejected castings to Rifle Factory Ishapore in February 1999 on the ground that those were cleared in inspection by the Quality Assurance Department of the Medak Factory and advised Rifle Factory Ishapore to bear such rejection loss during machining as envisaged in Ordnance Factory Board's guidelines.

**Rejection had not been investigated as of September 2000**

In July 1999 General Manager of Rifle Factory Ishapore ordered a Board of Enquiry to investigate into the causes behind the rejection. Although the Board had submitted the report the factory had constituted another Board of Enquiry in August 2000 since the earlier findings of Board of Enquiry required review.

Thus 0.44 lakh castings supplied by Ordnance Factory Medak to Rifle Factory Ishapore were rejected during rough machining resulting in a loss of Rs 78.16 lakh and General Manager Ordnance FactoryMedak instead of trying to diagnose the problem, took recourse to avoiding responsibility.

It was recommended in audit that Ordnance Factory Board and Ordnance Factory Medak should collaborate to diagnose the causes of rejection of investment castings and take suitable remedial action to prevent occurrence of such rejections.

Ministry of Defence stated in September 2000 that the castings were being developed by Medak factory for the first time and some teething problems were there in the initial stage. Ministry of Defence further added that Audit recommendations had been noted and action will be taken accordingly on completion of Board of Enquiry of Rifle Factory Ishapore.

**AFK placed demands on MSF for 1.95 lakh cartridge cases**

***Case III***

**MSF supplied 1.94 lakh cartridge cases after processing basic material received from OFA**

Ammunition Factory Kirkee placed four demands on Metal and Steel Factory Ishapore between July 1991 and May 1995 for manufacture and supply of 1.95 lakh cartridge cases of 14.5 mm Artillery Training Ammunition. Metal and Steel Factory Ishapore manufactured cartridge cases by using Aluminium Rod received from Ordnance Factory Ambernath and supplied 1.94 lakh cartridge cases to Ammunition Factory Kirkee between July 1994 and July 1998.

**Abnormal rejection of 21084 cartridge cases valuing Rs 43.73 lakh noticed at MSF**

It was noticed that actual rejections in respect of three warrants for 1.73 lakh cartridge cases at Metal and Steel Factory ranged between 41 and 43 per cent against normal rejection of 30 per cent resulting in abnormal rejection of 21084 cartridge cases valuing Rs 43.73 lakh.

**62038 cartridge cases valiung Rs 1.60 crore also were rejected in proof at AFK**

Further, of the 1.94 lakh cartridge cases issued to Ammunition Factory Kirkee 62,038 cartridge cases valuing Rs 1.60 crore had failed in proof testing between March 1995 and June 1997 due to complete rupture, stamping and gauging defects. By June 2000 Ammunition Factory Kirkee had backloaded 50610 rejected cartridge cases to Metal and Steel Factory Ishapore and remaining 11428 rejected cartridge cases were yet to be backloaded.

**Boards of Enquiry attributed rejection of cartridge cases due to use of defective material received from OFA**

The General Manager Metal and Steel Factory Ishapore constituted three Boards of Enquiry between December 1997 and December 1998 to ascertain interalia the causes of abnormal rejection of cartridge cases under three warrants and to suggest remedial measures. All the three Boards of Enquiry in its findings of August 1999 and September 1999 attributed main causes of abnormal rejection of cartridge case to use of defective aluminium alloy rod supplied by Ordnance Factory Ambernath in which defects like pittings, cracks, porosity and inclusion were present. As a remedial measures they suggested procurement of improved quality of aluminium alloy rods and tools.

Thus, supply of sub-standard material by sister factory Ordnance Factory Ambernath and their use in production at Metal and Steel Factory Ishapore had resulted in rejection of cartridge cases worth Rs 2.05 crore.

Ordnance Factory Board stated in September 2000 that Ambernath factory had supplied the Aluminium Alloy rods to Ishapore factory as per required specification duly inspected and accepted by Quality Assurance division of former factory and attributed abnormal rejection also to use of old presses at Ishapore factory. Ordnance Factory Board further added that it has been decided to constitute another Board of Enquiry to investigate the reasons for high rejection.

The case clearly indicates the need for inquiring into the performance of the Quality Assurance establisments at both the factories in as much as inspection of the out put of Ordnance Factory Ambernath was either not being carried out satisfactorily or the test parameters were inadequate.

The case was referred to the Ministry of Defence in August 2000; their reply is awaited as of December 2000.

***Case IV***

**MSF supplied 29989 forgings to GSF**

Metal and Steel Factory had manufactured and supplied in all 29989 forgings of an ammunition to Gun and Shell Factory between September 1996 and August 1998 against four demands placed between January 1995 and September 1997.

**In July 1998 GSF back-loaded 1411 defective forgings to MSF**

In July 1998 Gun and Shell Factory back-loaded 1411 forgings valuing Rs 24.89 lakh to Metal and Steel Factory as these were rejected by the former for presence of the under mentioned defects.

- Uneven forging wall thickness.
- Non-availability of material at the spigot end.
- High cavity bore

Metal and Steel Factory decided in May 1999 to send back the entire lot of 1411 forgings to Gun and Shell Factory on the grounds that -

- 25 *per cent* forgings were so rusty due to improper storage that dimensional parameter could not be checked;

75 *per cent* forgings were almost in the finished machine stage. Hence the cause of rejection could not be ascertained.

**MSF sent back 1320 defective forgings to GSF in June & July 1999 without proper investigation**

Metal and Steel Factory sent back 1320 forgings to Gun and Shell Factory between June 1999 and July 1999 and the remaining 91 forgings were sent to Cossipore factory in August 2000.

In January 2000 Gun and Shell Factory appealed to Metal and Steel Factory to settle the matter by accepting 1320 rejected forgings.

General Manager Metal and Steel Factory stated that forgings were issued by them only after being duly inspected by Inspection Quality Control (MSF) and Senior Quality Assurance Establishment (Metal) Ishapore and attributed rejection to improper storage at Gun and Shell Factory.

Audit therefore recommended that causes of rejection may be investigated jointly by Metal and Steel Factory and Gun and Shell Factory with a view to avoiding such occurrence in future.

Ministry of Defence while accepting the aforesaid facts stated in October 2000 that the causes of rejection are to be investigated for which Board of Enquiry is being constituted as per audit recommendation.

## 65. Delay in check proof of imported rockets

**Delay in carrying out inspection of imported rocket worth Rs 42.30 crore by the inspectorates of the Ministry of Defence coupled with preferring claim beyond the warranty period resulted in repudiation of claim by the foreign firm and acceptance of the same with reduced shelf life.**

**Instruction provide for expedious inspection of imported stores to raise the claims timely**

As per instruction issued by the Ministry of Defence in October 1985 stores received from foreign suppliers should be inspected within 15 days of receipt and thereafter inspected/proof checked within one month for intimating defects to suppliers within the time limit specified in the contract. Delay in submitting claims on a foreign supplier in violation of the above instruction resulted in acceptance of fuzes of rockets with reduced shelf life as detailed below.

Ministry of Defence concluded a contract with a foreign supplier in March 1996 for import of 23500 units of 122 mm Grad Rocket alongwith fuzes/ components at a total cost of US$ 199.75 lakh equivalent to Rs 73.53* crore to be positioned at Central Ammunition Depot Pulgaon. The contract *inter alia* stipulated that after arrival of stores in India the inspection would be done by the inspectors of the Ministry of Defence within 60 days of arrival in India and the supplier guaranteed the quality of the equipment for 12 months from the

* *1US $ = Rs 36.81*

date of delivery which would be calculated with reference to the date of issue of bill of lading at the Port of delivery. The contract, however, did not stipulate any acceptance criteria for the Grad Rockets in inspection/check proof.

**Ministry of Defence imported 23500 pieces 122 mm Grad Rocket from Russia in May 1997**

The supplier supplied the full consignment of 23500 units of 122 mm Grad Rocket alongwith 23520 fuzes and 16000 brake rings by April 1997 under two lots and the Central Ammunition Depot Pulgaon received the store in May 1997.

**DGQA rejected 13520 fuzes of 122 mm Grad Rocket in inspection**

**Foreign firm refused to replace rejected fuzes on the ground of time barred claim**

Despite receipt of supplies in May 1997 the Controller of Quality Assurance (Ammunition) Kirkee called for samples for check proof only in August 1997 that is after the expiry of 60 days time limit for inspection of the lots. Central Ammunition Depot Pulgaon sent the samples of imported Grad Rockets to proof range and Controllerate of Quality Assurance (Ammunition) Kirkee in September 1997 for proof and breakdown/chemical analysis respectively. Though the check proof was completed in January 1998 there was confusion as to the applicability of the indigenous or manufacturer's criteria in the proof schedule of imported rockets. However, it was decided in March 1998 to adopt the manufacturer's specifications for the Grad Rocket and samples were called for in March 1998 for reproof. In the reproof samples, lot No.1 was sentenced serviceable in October 1998 and samples of lot No.2 were rejected due to unserviceability of magazine filling of Grad Rocket. The Director General Quality Assurance therefore rejected fuze of lot No.2 consisting of 13520 units in May 1998 since chemical explosive composition was in unserviceable condition and accordingly a quality claim was preferred on the supplier by the Ministry of Defence in May 1998. The supplier rejected the quality claim in July 1998 on the ground that the chemical composition of the fuzes and their country's method of testing were unknown to the Indian side and warranty period had expired in March 1998.

Thus despite Ministry's instruction for inspection of imported stores within 15 days considerable delay in inspection had resulted in failure of Ministry of Defence to obtain replacement of 13520 fuzes.

The Controllerate of Quality Assurance (Ammunition) Kirkee stated in September 2000 that despite their repeated request the country of origin did not supply the proof schedule, specification and its acceptance criteria and since the firm failed to honour the quality claim preferred on them they had sentenced the rejected fuzes serviceable for the period of seven years against ten years as stipulated in the contract.

The contention of the Controllerate of Quality Assurance (Ammunition) Kirkee was not tenable since the onus of deciding upon acceptance criteria rested solely with them and acceptance of the rejected fuzes for the period of seven years shelf life vis-a-vis ten years is only a fait accompli and does not in any way reduce the responsibility of those who delayed inspection and preferred claim beyond warranty period. It was also not clear as to how rejected fuzes were sentenced serviceable despite chemical explosive composition being unserviceable.

The matter was referred to the Ministry of Defence in August 2000; their reply was awaited as of December 2000.

## Miscellaneous

### 66. Non-recovery of Rs 1.08 crore from a defaulting firm

**Ministry of Defence could not recover Rs 1.08 crore from a firm which supplied defective empty fuze of an ammunition to Ordnance Factory Khamaria.**

A local firm 'A' supplied to Ordnance Factory Khamaria 6513 sets empty fuzes which failed in filled proof. Ministry of Defence was yet to recover Rs 1.08 crore paid to the firm as of August 2000 as brought out below:-

**Ministry placed supply order on a supplier in September 1989 for 23,000 sets empty fuze**

**Ordered quantity was reduced to 15,000 sets in January 1995 due to poor performance**

Ministry of Defence placed a supply order in September 1989 on the supplier for procurement of 23,000 sets empty fuze of 84 mm HE ammunition, required by Ordnance Factory Khamaria, at a total cost of Rs 3.34 crore. The supplier submitted advance sample of 165 sets empty fuze only by July 1993 against January 1991 as stipulated, and bulk production clearance was accorded in January 1994. In view of poor performance of the firm the ordered quantity was reduced from 23,000 sets to 15,000 sets by the Ministry of Defence in January 1995.

**Firm supplied 6513 sets empty fuzes upto September 1996**

**All the six lots supplied by the firm failed in proof**

The Firm supplied 6513 sets empty fuzes to Ordnance Factory Khamaria in six lots between September 1995 and September 1996 which were duly accepted by Area Inspector Bombay. The Controller of Defence Accounts (Headquarters) New Delhi paid Rs 1.08 crore towards 95 per cent cost of fuzes to the firm. Ordnance Factory Khamaria filled 4451 sets of empty fuze in four lots at a cost of Rs 30.59 lakh, out of which one lot was accepted in filled proof and three lots were rejected for various reasons. Ordnance Factory Khamaria has so far not filled the remaining two lots of empty fuze received from the supplier. The accepted lot was assembled into ammunition outturn[#]. This also failed.

**Firm failed to replace/ rectify rejected fuzes**

**Ministry short closed the order in September 1998**

Despite several communications to the firm by Ordnance Factory Khamaria/Ministry of Defence the supplier failed to rectify or improve the quality of empty fuze supplied by them, and in September 1998 Ministry of Defence shortclosed its order of September 1989 at supplied quantity of 6513 sets empty fuzes at risk and cost, and encashed bank guarantee of Rs 0.75 lakh submitted by the firm in October 1998. Ministry of Defence also instructed

[#] *Assembling of filled fuze with other components of an ammunition in a lot.*

Controller of Defence Accounts (Headquarters), New Delhi in September 1998 to recover Rs 1.08 crore paid to the supplier from its pending bills which was awaited as of August 2000. The prospect of recovering Rs 1.08 crore from the supplier was bleak since there were no pending bills either with the Ordnance Factories or with Ministry of Defence. Besides the expenditure of Rs 30.59 lakh incurred in filling of 4451 empty fuzes by Ordnance Factory Khamaria was also rendered infructuous.

Ordnance Factory Board stated in August 2000 that rejected lots would be broken down and recovered filled components would be destroyed.

The matter was referred to the Ministry of Defence in June 2000; their reply was awaited as of December 2000.

## 67. Short closure of indent due to delay in production

**Delay in supply of spare barrels of 73 mm guns by Gun and Shell Factory Cossipore led to short closure of production resulting in blocked inventory of Rs 2.53 crore at the factory.**

**OFB authorised GSF to supply 300 sets 73 mm spare barrels by March 1996**

**GSF supplied 205 spare barrels upto August 1997**

**Army refused to accept further spare barrels**

Based on Army's indent of March 1988 Ordnance Factory Board authorised the General Manager Gun and Shell Factory Cossipore in July 1988 to manufacture and supply 200 sets, subsequently enhanced to 300 sets in February 1996, of 73 mm smooth bore spare barrels for BMP-I to the Central Ordnance Depot Jabalpur by March 1996. The Gun and Shell Factory Cossipore, owing to development problems, undertook manufacture of spare barrels only from 1991-92 and supplied 205 spare barrels to the Central Ordnance Depot, Jabalpur by March 1997. Gun and Shell Factory Cossipore further manufactured 55 spare barrels by August 1997, at which time the Army refused to accept further spare barrels on the ground that the spare barrels were not required.

**FR of Rs 2.53 crore owing to Army's refusal to accept spare barrels beyond 205 sets**

Though the production was short closed at 260 spare barrels, Gun and Shell Factory Cossipore and Ordnance Factory Khamaria together were holding 55 spare barrels in stock without any prospect of utilisation. As a result of short closure of production there was financial repercussion of Rs 2.20 crore at Gun and Shell Factory Cossipore being the value of 55 spare barrels, work in progress and surplus raw materials. Besides, there was also a financial repercussion of Rs 33.11 lakh at Metal and Steel Factory Ishapore owing to cancellation of Gun and Shell Factory Cossipore's demand for supply of barrel forgings in connection with the manufacture of spare barrels.

Ordnance Factory Board stated in September 2000 that they had not agreed for short closure due to huge financial repercussion and requested the Army to reconsider for completing the indented quantity.

Thus, non-acceptance of spare barrels beyond 205 sets by the Army resulted in financial repercussion of Rs 2.53 crore at Gun and Shell Factory Cossipore and Metal and Steel Factory Ishapore.

The matter was referred to the Ministry of Defence in July 2000; their reply was awaited as of December 2000.

## 68. Extra expenditure in rectification of defective boxes

**Ordnance Factory Chanda sustained an extra expenditure of Rs 42.85 lakh in rectification of defective container boxes procured from trade and cleared in inspection by the Area Inspector.**

Ordnance Factory Chanda supplies 130 mm ammunition to the Central Ammunition Depot Pulgaon duly packed in container Box C-40A procured from trade.

**OFCh procured container boxes from trade duly inspected by SQAE(A) and SQAO**

Ordnance Factory Chanda procured container Box C-40A from two trade firms at Rs 415 each which were cleared in inspection by the Area Inspector of Senior Quality Assurance Establishment (Armament)/ Senior Quality Assurance Officer against Ordnance Factory Chanda's six orders placed between May 1994 and December 1994.

**Ammunition packed in these boxes and despatched to CAD Pulgaon were affected with water**

**12525 ammunition and 6725 boxes were affected with water and required rectification**

During spot inspection of ammunition at the Central Ammunition Depot, Pulgaon in February 1995 the Senior Quality Assurance Establishment (Armament) Chanda found that ammunition packed in these boxes were affected with water. He attributed the defects to packing of ammunition in wet boxes, moisture soaked boxes and unseasoned wood boxes procured from trade. During the course of joint investigation with Ordnance Factory Chanda at Central Ammunition Depot Pulgaon, the Senior Quality Assurance Establishment (Armament) Chanda observed defects in 12525 rounds of 130 mm ammunition packed in the container Box C-40A and 6725 container Box C-40A requiring rectification by the Chanda Factory.

**OFCh repaired 3790 boxes and 11796 ammunition at extra cost**

The Ordnance Factory Chanda repaired 3790 container Box C-40A at a total cost of Rs 30.06 lakh and rectified 11796 numbers of 130 mm ammunition by July 1998 at a nominal cost. Besides Ordnance Factory Chanda also incurred Rs 12.79 lakh towards deputing its staff for carrying out rectification work at Central Ammunition Depot during April 1994 to July 1996. Thus Ordnance Factory Chanda incurred avoidable expenditure of Rs 42.85 lakh on rectification of 3790 defective container boxes i.e. at the rate of Rs 1190 per box which was much higher than the procurement rate of Rs 415 per box. As the fresh boxes were available at Rs 837 per box, Ordnance Factory Chanda had incurred an extra expenditure of Rs 11.10 lakh on repairs. But the factory recovered only Rs 1.07 lakh from trade firm being repair charges on account of defective container boxes. The rectification of 2935 defective boxes and

729 rounds of 130 mm ammunition was yet to be undertaken by the factory as of September 2000.

General Manager Ordnance Factory Chanda stated in December 1999 that defects in the container boxes might have occurred due to storage in the open space which led to atmosphere effect adding that the boxes were inspected & accepted by the Area Inspector of Senior Quality Assurance Establishment (Armament), SQAD and also that the remaining 2935 container boxes were being repaired in phased manner.

No responsibility was fixed either for acceptance of defective boxes or for packing of ammunition in defective boxes or for improper storage.

Ordnance Factory Board in September 2000 accepted the aforesaid facts and figures.

The matter was referred to the Ministry of Defence in August 2000; their reply was awaited as of December 2000.

## 69. Loss due to improper storage

**Improper storage of empty shells of 76.2 mm flash ammunition at Ordnance Factory Chanda resulted in rejection worth Rs 32 lakh.**

**Ordnance Factory Chanda supplied 2400 shells of 76.2 mm ammunition against Navy's demand**

A Naval Armament Depot placed demand for 3850 shells of 76.2 mm ammunition on Ordnance Factory Khamaria for proof of proximity fuse. The shells were to be supplied by December 1993. Ordnance Factory Khamaria placed demand for filled shells on Ordnance Factory Chanda between March 1992 and September 1993. The latter placed demand for 2400 empty shells on Gun and Shell Factory Cossipore in June 1992 which was enhanced to 4000 shells in May 1995.

**Navy short closed the demand after two years of scheduled delivery date**

Ordnance Factory Chanda supplied 2400 filled shells to Ordnance Factory Khamaria up to October 1995. Naval Headquarters short closed their demand in October 1995 when Ordnance Factory Chanda still had 400 filled shells costing Rs 15.74 lakh, 400 empty shells as semi costing Rs 14.92 lakh and 800 empty shells valuing Rs 32 lakh in stock as blocked inventory.

**800 empty shells supplied by OF Chanda were rejected**

To liquidate the blocked inventory Naval Headquarters revised the demand for 1200 shells in February 1998. Ordnance Factory Chanda supplied 800 empty shells to Ordnance Factory Khamaria for filling in June 1998. Naval Armament Inspectorate Khamaria rejected these shells due to defects like shell body pitted and badly rusty, copper driving band heavily corroded and body painted bluish. As a result Ordnance Factory Khamaria did not meet the Navy's demand of February 1998. Gun and Shell Factory Cossipore, however, refused to undertake rectification on the ground that empty shells were badly corroded due to bad storage at Ordnance Factory Chanda and defects were beyond rectification.

**150 filled shells and 400 empty shells in semi were still lying at Chanda**

Ordnance Factory Chanda constituted Board of Enquiry in September 1999 to investigate the circumstances leading to loss. The Board of Enquiry in its report of December 1999 did not attribute any lapse of Ordnance Factory Chanda and simply stated that the factory may propose to Naval Armament Depot, for acceptance of blocked inventory of 150 numbers of passed proof shell for utilisation during 2000-2001 to avoid loss to the state and to utilise remaining 250 passed proof shell against Naval Armament Depot's requirement for the period October 1999 to March 2000. The Board of Enquiry was silent as to the manner by which 400 empty shells lying as semi were to be disposed off. As a remedial measure, however, the Board of Enquiry suggested periodical ascertainment of proof stock components by various proof establishments by Ordnance Factory Chanda in order to produce these components judiciously and accurately.

Ordnance Factory Board while accepting the aforesaid facts stated in December 2000 that Ordnance Factory Chanda and Gun and Shell Factory Cossipore have been advised to make serious efforts to segregate and salvage some quantity of 800 empty shells rejected by Naval Inspectorates at Khamaria, for filling to reduce the financial repercussion.

The matter was referred to the Ministry of Defence in August 2000; their reply was awaited as of December 2000.

## 70. Questionable procurement of furnace oil

**Physical shortage of furnace oil at Ordnance Factory, Muradnagar raises doubt about receipt of 6.82 lakh litres of furnace oil costing Rs 47.27 lakh.**

**Stock holding of furnace oil exceeded its storage capacity in Ordnance Factory, Muradnagar**

The total storage capacity of furnace oil which is one of the inputs of direct materials at Ordnance Factory, Muradnagar is 4 lakh litres. It was seen in audit that during the period February 1999 to November 1999 the holding as per the records ranged from 4.07 lakh litres to 10.82 lakh litres. This shows that there was improper maintenance of stock records since this would imply storage of furnace oil upto $2^1/_2$ times the total storage capacity of the factory. In October 1999, the General Manager initiated procurement action for 12 lakh litres of furnace oil to meet the requirement of the next 6 months, even though at that time the stock position was shown to be 9.66 lakh litres.

**Unaccounted stock on a particular day was 6.82 lakh litres**

As on 21 November 1999, the stock position were shown as 10.82 lakh litres which leaves 6.82 lakh litres unaccounted for, inasmuch as the storage capacity in the factory was only 4 lakh litres. This leads to the conclusion that there was actually an accumulated unaccounted shortage of 6.82 lakh litres whose cost worked out to Rs 47.27 lakh.

**Transporter took 3-8 days in transporting oil to a maximum of 90 km**

This conclusion is strengthened by the fact that the transporters engaged by the factory for transport of oil from Delhi to Muradnagar, a distance of 90 kms, usually took 5-8 days to deliver the oil, and 3-7 days to transport oil from Meerut to Muradnagar, a distance of 45 kms. On one occasion, when the short delivery of oil delivered by the transporter amounted to 6888 litres during June 1999 to February 2000 the resultant penalty levied by the Factory exceeded the total charges payable for transportation, despite which the same carrier continued to be engaged by the factory.

Management in reply to the audit observation stated that the physical stocks of oil were not correctly reflected in the bin cards as the factory had adopted a system where furnace oil was treated as a direct item, demand notes were raised for furnace oil against material warrants from time to time. This does not in any way explain the situation owing to the fact that bin cards are the basis of all stock records and even where materials are drawn against warrants, a corresponding entry lowering the bin card balance has to be made. Management also stated that furnace oil was often drawn on estimates of the requirement which exceeded actual utilisation, this is not tenable in view of the fact that such drawal of oil in excess of requirement would necessitate its storage on the shop floor for which no storage facilities existed. In any case it shows that the management had no explanation about not adhering to the stipulated procedures of maintaining stock accounts, especially bin cards.

**Management stated that bin card did not represent actual stocks**

Management also stated, inter alia, "Audit is going by the bin card figures which not at all reflecting the actual position of above physical drawals, due to certain inherent problem of not providing sufficient material warrants for raising demand note to cover actual physical drawals." This clearly shows that drawals were made without material warrants which is in complete contravention of rules stipulating drawal of direct item/material for production purposes. The contention regarding bin card balances not reflecting actual balances was not correct as balances as per bin cards were verified by stock verification team of the Director General Ordnance Factories and signed. For example they verified the balance of 4.84 lakh litres and 2.88 lakh litres on the same day i.e. 28 October 1998.

Ordnance Factory Board stated in November 2000 that Audit had not given any fact or proof of their contention except holding on to their unrealistic stand of taking the Bin Card balance as the authentic base, wherein the drawals are not fully accounted for reasons explained and therefore is not at all the correct reflection of the actual position. The contention of Ordnance Factory Board treating bin card balances as irrelevant and their supportive attitude to Ordnance Factory Muradnagar with regard to possible nexus of factory and transporter is not acceptable since the suspicions of audit about nexus between factory and transporter has been confirmed by the fact that the General Manager of Muradnagar factory in August 2000 had ordered cancellation of all outstanding orders of Bhagwan Singh oil carriers, New Delhi stating that the latter had supplied furnace oil mixed with water and road-tar causing huge loss to the Government.

In conclusion, therefore, the case shows that there is failure on the part of the management in maintaining stock position of furnace oil and this is compounded by the Ordnance Factory Board's supportive attitude to the unsatisfactory responses received from the factory level. The matter, therefore, deserves investigation.

The matter was referred to the Ministry of Defence in August 2000; a reply is awaited as of December 2000.

## 71. Follow up on Audit Reports

**Despite repeated instructions/recommendations of the Public Accounts Committee, the Ministry did not submit remedial Action Taken Notes on three Audit Paragraphs.**

**Action Taken Notes are to be submitted within four months from the date of placing the Report on the Table of House**

With a view to ensuring enforcement of accountability of the executive 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 Reports in Parliament.

**The Ministry failed to submit Action Taken Notes on three paragraphs**

Review of outstanding Action Taken Notes relating to Ordnance Factory Board as of January 2001 revealed that the Ministry failed to submit Action Taken Notes in respect of three paragraphs included in the Audit Reports up to and for the year ended March 1999 as per Annexure II.

## 72. Response of the ministries/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 C&AG of India within six weeks.

The Draft Paragraphs are always forwarded by the respective Audit Offices 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 was brought to their personal notice that since the issues were likely to be included in the Audit Report of the CAG, which are placed before parliament, it would be desirable to include their comments in the matter.

* *No.F-32/(9) EG-1/60 dt.3 June 1960*

Draft Paragraphs proposed for inclusion in the Ordnance Factory Section of the Report of the C&AG of India for the year ended March 2000; Union Government (Defence Services): No.7 of 2001 were forwarded to the Secretary Department of Defence Production and Supplies, Ministry of Defence between May 2000 and November 2000 through Demi-Official letters.

The Secretary Department of Defence Production and Supplies did not send replies to 16 Draft Paragraphs out of 26 paragraphs in compliance to above instructions of the Ministry of Finance issued at the instance of the Public Accounts Committee. Thus, the response of the Ministry could not be included in them.

| Ministry/ Department | Total No. of Paragraphs on the Ministry/ Department included in the Report | No. of Paragraphs in which reply not received from respective Secretaries | Paragraph Number |
|---|---|---|---|
| Ministry of Defence Department of Defence Production & Supplies Ordnance Factory Board | 26 | 16 | 47,48,51,53, 55,57,58,62, 64(CaseIII), 65,66,67,68, 69,70and 71 |

Sudha Rajagopalan

**( SUDHA RAJAGOPALAN )**
**Director General of Audit**
**Defence Services**

**New Delhi**
**Dated:** 25 JUN 2001

**Countersigned**

V. K. Shunglu

**( V.K. SHUNGLU )**
**Comptroller and Auditor General of India**

**New Delhi**
**Dated:** 28 JUN 2001

# ANNEXURE-I

**Position of outstanding ATNs**

*(Referred to in paragraph 22)*

(i) **Pending for more than five years**

| 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. | | 41** | Loss in procurement of wax special. |
| 4. | No.2 of 1989 | 11* | Purchase and licence production of 155mm towed gun system and ammunition. |
| 5. | | 81* | Review on utilisation of equipment in Defence Research and Development Organisation. |
| 6. | No.12 of 1990 | 9* | Contracts with Bofors for (a) Purchase and licence production of 155mm gun system and (b) Counter trade. |
| 7. | | 10* | Induction and de-induction of a gun system. |
| 8. | | 17** | Import of fire control system for tank. |
| 9. | | 19* | Import of ammunition of old vintage. |
| 10. | | 46** | Ration article-Dal. |
| 11. | No.8 of 1991 | 1.7* | Non-verification of credits for stores. |
| 12. | | 10* | Procurement of stores in excess of requirement. |
| 13. | | 13* | Central Ordnance Depot, Agra. |
| 14. | | 15** | Extra expenditure due to wrong termination of meat contract. |
| 15. | | 17** | Infructuous expenditure on procurement of dal chana. |
| 16. | No.8 of 1992 | 18** | Supply of sub-standard timber softwood. |
| 17. | | 20** | Procurement of sub-standard goods in an Ordnance Depot. |
| 18. | | 28** | Avoidable payment of maintenance charges for Defence tracks not in use. |
| 19. | | 58 | Procurement of stores in excess of requirement. |
| 20. | No. 13 of 1992 | Part I* | Recruitment of Other Ranks |
| 21. | | Part II** | Training of Other Ranks |

| Sl.No. | Report No. and Year | Para No. | Subject |
|---|---|---|---|
| 22. | No. 8 of 1993 | 7** | Extra expenditure due to delay in issue of allotment letters |
| 23. | | 13* | Infructuous expenditure on development of radar |
| 24. | | 29* | Import of mountaineering equipment and sports items |
| 25. | | 31* | Avoidable payment of detention charges |
| 26. | | 33** | Additional expenditure due to rental of an exchange |
| 27. | | 68* | Civil works for a Naval Air Station. |
| 28. | | 69* | Non-utilisation of assets created for a computer centre |
| 29. | | 74 ** (Case II) | Provision of training sheds |
| 30. | No. 8 of 1994 | 10** | Establishment of a National War Museum |
| 31. | | 17* | Import of defective equipment |
| 32. | | 18* | Non-commissioning of a plant |
| 33. | | 23** | Avoidable payment of customs duty. |
| 34. | | 64* | Infructuous expenditure due to inadequacies in design and execution of works |
| 35. | | 76** | Establishment of an Army Public School |
| 36. | | 82** | Loss of revenue due to non-completion of works of external electrification and water supply |
| (ii) | **Pending for more than 3 years** | | |
| 37. | No. 8 of 1995 | 12* | Working of the Department of Defence Supplies |
| 38. | | 13* | Delay in repair of defective imported ammunition |
| 39. | | 17* | Import of radar |
| 40. | | 29 | Manufacture of defective parachutes |
| 41. | | 30 | Non-utilisation of parachutes |
| 42. | | 81** | Under-utilisation of assets |
| 43. | | 84** | Avoidable extra expenditure due to defective construction |
| 44. | | 88* | Review on equipment, manpower and material management in six Research and Development Establishments |
| 45. | No. 8 of 1996 | 12** | Inordinate delay in repair of imported ammunition |
| 46. | | 22** | Hiring of vehicles |
| 47. | | 24* | Wasteful expenditure on injudicious procurement of tyres |

| Sl.No. | Report No. and Year | Para No. | Subject |
|---|---|---|---|
| 48. | | 25* | Avoidable procurement of mounting tripods |
| 49. | | 26** | Loss on account of procedural lapse |
| 50. | | 28** | Loss from life expired oil |
| 51. | | 63* | Nugatory expenditure due to lack of planning |
| 52. | | 68** | Delay in construction of married accommodation for sailors |
| 53. | | 69** | Irregular expenditure on a public School |
| 54. | | 70* | Supply of sub-standard high strength cement |
| 55. | | 76** | Infructuous expenditure on design and development of half track multirole vehicle |
| **(iii)** | **Pending upto three years** | | |
| 56. | No. 7 of 1997 | 7 | Losses awaiting regularisation |
| 57. | | 11* | Unnecessary procurement of engines |
| 58. | | 14* | Loss due to improper despatch of imported equipment |
| 59. | | 15 | Over provisioning of seats and cushions for vehicles |
| 60. | | 18* | Management of Defence Land |
| 61. | | 23** | Avoidable expenditure on Demurrage charges |
| 62. | | 24* | Undue favour to a firm |
| 63. | | 26 | Procurement of defective steering assembly |
| 64. | | 28* | Under-utilisation of manpower in an Army Base Workshop |
| 65. | | 29** | Delay in procurement of bin steel portable |
| 66. | | 32* | Irregular payment of charges |
| 67. | | 33* | Infructuous expenditure due to erroneous despatch of vehicles |
| 68. | | 69** | Defective construction of blast pens and taxi track |
| 69. | | 75** | Unauthorised expenditure on procurement of cast iron pipes of higher specification |
| 70. | | 76** | Non-recovery of excess issue of department stores from contractors |
| 71. | | 78* | Non-recovery of extra expenditure from a defaulting contractor |
| 72. | | 79* | Non-utilisation of assets due to faulty planning |
| 73. | No. 7 of 1998 | 12* | Authorisation and Expenditure |
| 74. | | 14* | Extra expenditure on modification of radar |

| Sl.No. | Report No. and Year | Para No. | Subject |
|---|---|---|---|
| 75. | | 15* | Loss of ammunition due to improper storage |
| 76. | | 16* | Questionable deal |
| 77. | | 17* | Procurement of defective radars |
| 78. | | 18* | Extra expenditure on procurement of rifles and ammunition due to failure to adequately safeguard Government interest |
| 79. | | 19** | Import of defective parachutes |
| 80. | | 20* | Excess procurement of barrels |
| 81. | | 21 | Extra expenditure due to non-adherence of contract provision |
| 82. | | 22* | Import of defective missiles |
| 83. | | 23* | Non-utilisation of imported testing equipment |
| 84. | | 25* | Follow up on Audit Reports |
| 85. | | 27* | Development of mini remotely piloted vehicle |
| 86. | | 28* | Working of Military Farms |
| 87. | | 30 | Avoidable payment of container detention charges |
| 88. | | 32* | Infructuous expenditure on procurement of substandard cylinders |
| 89. | | 34* | Unauthorised issue of free rations |
| 90. | | 36* | Procurement of batteries at higher rates |
| 91. | | 37* | Avoidable expenditure on manufacturing of head percussion |
| 92. | | 38** | Extra expenditure on the procurement of charging sets |
| 93. | | 39* | Extra expenditure due to inordinate delay in the execution of a married accommodation project |
| 94. | | 40** | Avoidable expenditure due to inadequate design |
| 95. | | 41* | Premature failure of tubewells |
| 96. | | 43* | Non-utilisation of a building due to defective workmanship |
| 97. | | 44* | Avoidable expenditure due to delay in completion of a contract |
| 98. | | 45* | Inordinate delay in construction of indoor gymnasium |
| 99. | | 47* | Non-occupation of married officers quarters due to faulty planning |
| 100. | | 48* | Non-utilisation of residential accommodation |

| Sl.No. | Report No. and Year | Para No. | Subject |
|---|---|---|---|
| 101. | | 49* | Avoidable payment due to delay in availing of concessional tariff |
| 102. | | 52* | Loss of revenue |
| 103. | | 53* | Payment of conservancy charges |
| 104. | | 55* | Extra expenditure due to acceptance of higher rates |
| 105. | | 56* | Extra expenditure due to wrong preparation of tender |
| 106. | | 57* | Unauthorised use of air-conditioners |
| 107. | | 59** | Extra expenditure due to delay in according financial concurrence |
| 108. | | 61* | Infructuous expenditure on a non-functional laboratory |
| 109. | | 62** | Infructuous expenditure on import of high speed video recording system |
| 110. | | 63** | Avoidable payment of customs duty |
| 111. | | 64* | Unfruitful expenditure on procurement of substandard hot mix plants |
| 112. | | 65* | Infructuous expenditure on development of a machine |
| 113. | | 67* | Infructuous expenditure on re-alignment of a road |
| 114. | | 68* | Injudicious procurement of stores |
| 115. | No.7 of 1999 | 8* | Outstanding claims/dues |
| 116. | | 9* | Non-verification of credits |
| 117. | | 10* | Outstanding dues on account of licence fee |
| 118. | | 11* | Cash losses |
| 119. | | 12 | Presumptive fraud in import of ammunition |
| 120. | | 13* | Defective training ammunition supplied by Bofors |
| 121. | | 14* | Delay in renewal of lease agreement |
| 122. | | 15 | Premature deterioration of imported ammunition |
| 123. | | 16* | Mishandling of missiles |
| 124. | | 17* | Procurement of defective sleeping bags |
| 125. | | 18* | Loss of revenue |
| 126. | | 19* | Recovery at the instance of Audit |
| 127. | | 20** | Failure to computerise Ammunition Depots |
| 128. | | 22 | Follow up on Audit Reports |
| 129. | | 23* | Development of Multi Barrel Rocket Launcher System (PINAKA) |

| Sl.No. | Report No. and Year | Para No. | Subject |
|---|---|---|---|
| 130. | | 24* | Negligence in framing terms of supply orders |
| 131. | | 25* | Unauthorised transfer of Defence land |
| 132. | | 26* | Excess manning by attachment of service personnel |
| 133. | | 27* | Procurement of Radars without vital part |
| 134. | | 28 | Non-recovery of advance |
| 135. | | 29 | Injudicious acquisition of land under urgency clause |
| 136. | | 30 | Failure to meet operational requirement |
| 137. | | 31** | Under-recovery of training charges |
| 138. | | 32 | Non-utilisation of friction drop hammers |
| 139. | | 33 | Failure to observe proper issue procedure for batteries |
| 140. | | 34 | Procurement of substandard electronic teleprinters |
| 141. | | 35* | Improper sanction and execution of work |
| 142. | | 36* | Non-recovery/overpayment of electricity charges |
| 143. | | 37* | Avoidable extra expenditure in the purchase of leather cloth |
| 144. | | 38 | Failure to administer a risk and expense contract |
| 145. | | 39* | Delay in Missile storage accommodation |
| 146. | | 40* | Delay in setting up of repair facilities for helicopters |
| 147. | | 41* | Avoidable payment of water charges |
| 148. | | 42* | Non-utilisation of a bulk petroleum installation |
| 149. | | 43* | Avoidable procurement of stores |
| 150. | | 44* | Extra expenditure due to substandard work |
| 151. | | 47* | Additional expenditure due to non-adherence of instructions |
| 152. | | 48* | Foreclosure of a bridge work due to defective design |
| 153. | No. 7 of 2000 | 9* | Dues on account of special flights/air lifts |
| 154. | | 10* | Losses awaiting finalisation/regularisation |
| 155. | | 13 | Failure to Safeguard Government Interest |
| 156. | | 14 | Unfruitful expenditure on repair of a weapon system |
| 157. | | 15* | Additional expenditure due to non-compliance of Risk Purchase Procedures |

| Sl.No. | Report No. and Year | Para No. | Subject |
|---|---|---|---|
| 158. | | 16<br>Case-I*<br>Case-III* | Recovery/savings at the instance of Audit |
| 159. | | 17 | Response of the Ministries/Departments to Draft Audit Paragraphs |
| 160. | | 18 | Follow up on Audit Reports |
| 161. | | 21 | Downgradation of mines due to manufacturing defects |
| 162. | | 22* | Loss due to non-repair of missiles within shelf life |
| 163. | | 23 | Procurement of defective bullet proof windscreen glasses |
| 164. | | 24 | Procurement of Batteries at higher rates |
| 165. | | 25 | Acceptance of substandard mosquito nets by the Inspecting Authority |
| 166. | | 26* | Questionable purchase of stores |
| 167. | | 27 | Extra expenditure due to delay in taking risk purchase action |
| 168. | | 28 | Non-recovery of due from a commercially run club occupying Prime Defence Land |
| 169. | | 29* | Infructuous expenditure in creation of Safety Zone around a test range |
| 170. | | 30* | Delay in setting up of an aviation base |
| 171. | | 31 | Delay in taking over of land leading to pilferage of trees |
| 172. | | 32* | Inadmissible payment under Land Acquisition Act |
| 173. | | 33 | Idle investment owing to non-utilisation of assets |
| 174. | | 34 | Wrongful reappropriation of married JCOs accommodation into married officers accommodation |
| 175. | | 35 | Unauthorised use of accommodation of married JCOs |
| 176. | | 36* | Unjustified payment towards sewerage cess |
| 177. | | 37* | Avoidable extra expenditure in delayed conclusion of contract |
| 178. | | 38 | Negligence in ensuring return of Government stores by contractors on their abandoning works |
| 179. | | 39* | Construction of an overhead tank at a wrong site |
| 180. | | 40* | Avoidable expenditure on cancellation of a contract |

| Sl.No. | Report No. and Year | Para No. | Subject |
|---|---|---|---|
| 181. | | 41 | Nugatory expenditure on indigenisation of a Rocket |
| 182. | | 42 | Delay in construction of bridges by Director General of Border Roads |
| 183. | | 43 | Deliberate delay in award of contract to favour a contractor |
| 184. | | 52 | Repowering of Vijayanta Tank |

*** Action Taken Note awaiting final settlement/vetting - 109**
**Action Taken Notes not received even for the first time - 37**
****Copy of the finalised ATN/Corrigendum to the finalised ATN awaited, from Ministry, after being duly vetted by Audit – 38**

## Annexure-II

**Position of outstanding ATNs**

*(Referred to in paragraph 71)*

| Report No. and year | Para No. | Subject | Remarks |
|---|---|---|---|
| Report No.7 of 1999 | 54 | Loss due to defective manufacture of brass cups | ATN not at all received |
| Report No.7 of 2000 | 54 | Avoidable import of indigenously developed store | ATN not at all received |
| Report No.7 of 2000 | 57 | Non-commissioning of imported Grinding Machine | ATN not at all received |