

# **ESTIMATES COMMITTEE (1982-83)**

(SEVENTH LOK SABHA)

## **FIFTY-FOURTH REPORT**

**ON**

**MINISTRY OF DEFENCE**

**DEPARTMENT OF DEFENCE PRODUCTION**

**ORDNANCE FACTORIES**



*Presented to Lok Sabha on 29 April, 1983.*

**LOK SABHA SECRETARIAT  
NEW DELHI**

*April, 1983/Vaisakha, 1905(Saka)*

*Price : Rs. 3.35*

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**(1982-83)**

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**(1982-83)**  
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**Shri Bansi Lal**

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9. **Shri Girdhari Lal Vyas**

## INTRODUCTION

I, the Chairman of Estimates Committee having been authorised by the Committee to submit the Report on their behalf, present this Fifty-Fourth Report on the Ministry of Defence (Department of Defence Production)—Ordnance Factories.

2. The Committee took evidence of the representatives of the Department of Defence Production on 1 and 3 January, 1983. The Committee wish to express their thanks to the Officers of the Department for placing before them the material and information which they desired in connection with the examination of the subject and giving evidence before the Committee.

3. The Committee also wish to express their thanks to Shri K. Subramanyam, Director, Institute of Defence Studies and Lt. Gen. S.S. Sandhu, PVSM (Retd.) for giving evidence and making valuable suggestions to the Committee.

4. The Committee also wish to express their thanks to all other Organisations/Institutions for furnishing memoranda on the subject to the Committee.

5. The Report was considered and adopted by the Committee on 27 April, 1983.

6. For facility of reference and convenience, recommendations and observations of the Committee have been printed in thick type in the body of the Report, and have also been reproduced in a consolidated form in the Appendix to the Report.

NEW DELHI ;

April 28, 1983

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*Valsakha 8, 1905 (Saka)*

BANSI LAL,

Chairman,

*Estimates Committee.*

# **CHAPTER I**

## **ORGANISATIONAL SET UP**

### **A. Ordnance Factory Board**

The origin of the Defence Production in India can be traced back to the year 1801 when the East India Company set up the Gun Carriage Agency near Calcutta. For the next half century, this was the only unit which undertook any kind of manufacturing activity for meeting Defence requirements. In 1859, another Factory was set up to meet requirements of leather goods for Army. The manufacture of ammunition was taken up in this country for the first time in 1872. Four more Defence Production Units were established in the first decade of this century. These production units were designed not to meet all the requirements of British Army in India, or of the Indian troops but were only meant to fit into the larger pattern of Defence production by the Royal Ordnance Factories. Eleven new Factories were established during the Second World War. The position in 1947 was that there were 16 Ordnance Factories in various degrees of production working under the Director of Ordnance Factories who was responsible to the Chief of General Staff in the Army Hqrs. On 1st January, 1948, the control of the Ordnance Factories was taken over directly by the Ministry of Defence and the post of Director General, Ordnance Factories was created with Hqrs. at Calcutta.

1.2. With the advent of independence, the role of Ordnance Factories changed substantially and they had to shoulder the heavy responsibility of protecting the nation's security and independence and in the process, develop the capability of absorbing intricate technical know-how in various sophisticated fields of defence production.

1.3. It was only after 1962 conflict that a systematic thrust for accelerated growth of defence industries was started. The First Five Year Defence Plan was formulated in 1964. While the main thrust was to ensure Defence preparedness to meet the external threats emphasis was also laid on the promotion of indigenous research and development, the mobilisation of industrial capacities and on stepping up of output. The Defence Production units set before themselves the twin objective of self-reliance and modernisation in the programme of defence production.

1.4. Today, Ordnance Factories comprise 33 units functioning as Departmental undertakings under the Department of Defence Production. These Factories are widely dispersed geographically and produce a wide

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variety of items covering a broad spectrum of technology for the Defence Services, para-military forces and the civil police. The range of production covers sophisticated, anti-tank guns, anti-aircraft guns, field guns, self-propelled guns, mountain guns, mortars, small arms besides related ammunition for these including metal components like empty shells, empty cartridges, empty fuzes, chemicals and explosives, sporting arms and ammunitions, bombs, rockets, projectiles, grenades, mines, demolition charges, depth charges, pyro-technic stores, transport vehicles, armoured vehicles, optical and fire control instruments, bridges, assault boats and various general and non-lethal stores and software items, like high altitude and combat clothing, leather items, parachutes etc.

1.5. Based on the recommendations made by a High Level Committee appointed by the Government which carried out a detailed in-depth study of the Ordnance Factories Organisation, the Ordnance Factory Board with DGOF as Chairman and 7 full time Members started functioning from 1979. Three of these Members have direct functions/responsibility for various production units groupwise, such as Production of Weapons and Ammunition, Production of Vehicles, Production of Materials. Whereas the other 4 Members have functional responsibility for Personnel, Planning and Material Management, Technical Development and Services, and Finance. The Board is collectively responsible for overall planning and policy making and monitoring and implementing the programmes.

1.6. The group of 4 factories engaged in the manufacture of non-lethal items, like clothing, parachutes, leather items etc. is under the control of Addl. DGOF (Ordnance Equipment Factories Hqrs.) located at Kanpur who is directly responsible to the DGOF.

#### *Ordnance Factory Board—Need for Re-organisation*

1.7. The following deficiencies in the set up of the reorganised ordnance factories Board have been brought to the notice of the Committee by a non-official expert :—

- (i) The span of control of the DGOF with 33 units is too unwieldy and it is too much to expect from the Head of an organisation to have effective control over so many units.
- (ii) With an average of 10 units under the control of each member (33 units divided among 3 members) span of control of each member is wide. Some of the members have large control,



1.8. Giving evidence before the Committee a non-official expert pointed out that the ideal span of control in some of the foreign countries like the U.S. and the U.K. was four to five sub-units.

1.9. The following suggestions have been made to the Committee by non-officials to meet the situation :—

- (i) The organisation be split up into separate Directorates dealing with specific nature of stores and head-quarters of each be located in proximity of concentration of the units.
- (ii) Each group of production units should be made totally autonomous (or financial autonomy be given according to another view) to break the existing unweildy nature of the organisation.
- (iii) Control of clothing and equipment factories should be taken away from DGOF by the MGO as the technology required is of a simple nature and linkages with the rest of the factories are minimal.
- (iv) Vehicle portion be separated from non-vehicle portion.
- (v) Some additional members be appointed to reduce the work-load on members.

1.10. On the suggestion regarding taking away control of clothing factories from DGOF by the M.G.O., a former Secretary to the Department of Defence Production expressed the view that :—

"I am not in favour of its being handed over to the MGO but I am in favour of its being handed over to the Civil Industrial Ministry as they may form them into a public sector corporation or merge them with the present public sector corporation and since these are of the same kind of technologies which are available in the Civil Sector. Therefore, it should be dealt with by them."

The witness added :—

"I would definitely agree that there is scope for streamlining the organisation by taking out the civilian items which are common to Civilian and Military use and there is a possibility of looking

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at the separation of the vehicles from the non-vehicles portion. The rest of them will have to remain in one organisation and it may be very difficult to split them into different kinds of organisation. If these things are carried out, I have a feeling that it could contribute very considerably to more efficient functioning of the factories' organisation."

1.11. The Committee wanted to know if the existing span of control was unweildy because each Member had to oversee a number of Ordnance Factories with turnover of each factory amounting to crores. In reply, the Secretary explained that under the Member Incharge of weapons there were seven factories where total production was of Rs. 127 crores. The Member Incharge of Materials and Components had 11 factories and the total turn over was of only Rs. 150 crores. The Member Incharge Ammunition and Explosives had 9 units with a turnover of Rs. 259 crores. He stated that the number of units had no relationship to the value of turnover and span of control. In vehicles group in the public sector undertakings one unit had a turnover of more than Rs. 220 crores.

1.12. Asked if DGOF set up needed to be reorganised, the Secretary, Defence Production pleaded in evidence that :—

- (a) The span was not very large and Members were well conversant with these factories. Many of them had risen from or worked at various levels. For them to manage three units, five units, nine units, was not difficult.
- (b) The functions of the Board basically were overall planning and monitoring and this relieved the Member of many problems.
- (c) Right from inception ordnance factories had linkages with each other and there was hardly any factory which was self-contained in all respects i.e. from raw material to the finished product.
- (d) A conscious decision had been taken on the basis of a very elaborate view of the working of ordnance factories only three years ago, Govt. are going through the process of stabilising the re-organised system. It would be premature to go through another phase of re-organisation so soon after the first one which was only three years old.
- (e) The system was being maintained as such but institutional framework was being improved for better and more efficient and effective operation.

1.13. The Secretary pointed out that "if you re-organise all the time then there was no period for settling down."

### **B. Representation of Services on OFB**

1.14. It has been represented to the Committee that there is at present no Service Officer on the Ordnance Factories Board. As Army is the largest indenter, it is logical and desirable that the Director Ordnance Service be included as a Member of the Ordnance Factory Board.

1.15. Rajadhyaksha Committee had recommended that Master General Ordnance might be made an ex-officio Member of the Ordnance Factory Board meaning thereby that he would have the right to go and attend the meetings of the Board. The Secretary, Defence Production stated during evidence that the matter was still under consideration of Government and that a decision would be taken soon. He added, however, that :—

"To make him (MGO) whole time member of the Ordnance Factories Board would not be acceptable to the Army because he has total responsibility in Army Hqrs. here. My view is that they were not interested in Board meetings because many of them deal with day-to-day management affairs, individual problems and so on.

"We arrange a discussion on their production requirements and all the members are present at this review meeting which is a very comprehensive review of not only the current year's problems but we are also insisting that the Army project their long time requirements so that we can take steps to meet their requirements. The target for every year is set up in a very detailed manner first by discussion with the Ordnance Factory Board and then at the Minister level."

### **C. Location of DGOF Headquarters**

1.16. The Committee wanted to know that when the Secretary Defence Production and the customers of Ordnance Factories items were seated in Delhi why was the office of the DGOF located in Calcutta. In reply, the Secretary, Defence Production stated during evidence that he saw no particular advantage in having the OFB headquarters in Delhi. He also pointed out that there was a total ban on moving offices to Delhi. The Secretary, however, said :

"Here I would confess that we have not given any particular thought to moving headquarters to Delhi".

1.17. Asked how many times Chairman and Members of the Ordnance Factory Board had to visit Delhi, the Committee were informed during evidence that the Chairman of the Board had to visit Delhi on an average for 54 days in an year during the last 3 years. As regards other Members of the Board the position for 1981 and 1982 is given in the statement below :

	1981	1982
Member P and MM	35	28
Member M and G	23	22
Member TW and WL	35	41
Member Vehicles	31	53
Member A and E	15	26
Member FIN	42	31
Member PER	—	—

1.18. The Committee find that on the basis of a reorganisation of the structure of the Ordnance Factories administration the Ordnance Factory Board was set up in 1979. Besides Chairman, the Board has seven Members. Of these, three Members are directly responsible to oversee the functioning of as many as 33 Ordnance Factories, with a total turnover of Rs. 536 crores. The Committee feel that the span control is too wide to be conducive to effective supervision, direction and control by the Functional Members of the Board. They accordingly recommend that the number of Functional Members of the Board may be suitably increased to ensure greater functional efficiency.

1.19. It surprises the Committee that Ordnance Factory Board constituted as it is today does not have even a single representative of the Armed Forces which are the largest indentors of arms and ammunition. In fact Rajadhyaksha Committee had recommended that MGO should be ex-officio Member of the Board. The Secretary, Defence Production pleaded in evidence that his suggestion would not be acceptable to Army authorities as MGO had "total responsibility" in Army Headquarters itself. The Secretary, however, indicated that Rajadhyaksha Committee's recommendation was still under consideration of Government. The Committee feel that

if MGO cannot be spared by Army Headquarters to serve as a Member of Ordnance Factory Board, it should not be too difficult to nominate some other service officer of appropriate rank to be a Part time Member of the Board. Such an arrangement, the Committee, feel would make for better coordination with, and greater involvement of the Armed Forces in the production planning and processes of the Ordnance Factories.

1.20. From the data furnished to the Committee it is seen that the Chairman and Members of the OFB (which is located at Calcutta) have to frequently shuttle between Calcutta and Delhi to confer and coordinate with the Ministry of Defence and Service Headquarters which are located in Delhi. During the last 3 years the Chairman, OFB had to visit Delhi 54 days per year on an average. Visits by other Members ranged between 15 to 23 days in a year. The Committee feel that this arrangement is not only time consuming and costly but also detracts Chairman and Members of the OFB from paying close attention to the operational problems of the Factories. The Committee, therefore, see a distinct advantage in shifting the Headquarters of OFB to Delhi and would like Government to consider the matter in all its aspects without delay.

#### **D. Delegation of Powers**

1.21. As regards delegation of powers with a view to improving the functioning of the Ordnance Factories Organisation, the Ministry of Defence have intimated that :—

- (i) powers of the Ordnance Factories Board have been delegated to the G.Ms. and down the line up to the level of Dy. Managers, with a view to expediting the procurement of materials etc. in the Ordnance Factories.
- (ii) the powers of the Ordnance Factory Board and the G.M.s already delegated, have been enhanced suitably to meet the production requirements. For example, the powers of the Ordnance Factory Board to procure material/components by making spot payments in the interest of production have been enhanced.
- (iii) the project proposals and other improvement proposals recieved from the Ordnance Factories are discussed in detail at the meeting of High Level Committee and decisions are taken expeditiously.

1.22. The main weaknesses that were diagnosed by the High Powered Committee in the then existing Organisation were a lack of well defined centres of accountability at various levels, and clear distinction between line and staff functions. The Rajadhyaksha Committee had suggested

that additional powers be given to DGOF, hoping that further additional powers might improve the efficiency of the organisation.

1.23. A retired Director Ordnance Services stated during evidence that although Director General, Ordnance Factories had been given very wide powers, he had not fully exercised them. Although additional powers had been given to him as recommended by Rajadhyaksha Committee no impact was noticed to have been achieved. The witness added :—

“In fact I find there was no improvement. I say improvement with full responsibility in performance and supply of weapons, ammunition and spares to the Army.”

1.24. The Secretary explained that the Department of Defence Production, was responsible to the Minister of Defence and to the Service Chiefs for the performance of the ordnance factories. The Chairman of the OFB was responsible to him and in turn, the members of the Board, were responsible to the Chairman in each area, in each group of factories allotted to the Member. Thus, accountability had been established down the line so that nobody could give the excuse “I could not do that.”

1.25. The witness added that down the line, the power structure had been totally recast in March, 1979 along with the reorganisation. After that, there had been a review to see whether there was any impediment in the exercise of those powers. This was done in September 1979, and some modifications were made. Again whenever cases came to the High Level Committee and it was felt that an individual case need not come to the Government at all, power was added on to the delegation of powers to the Board on case to case basis. He informed the Committee that this had happened extensively in the last six months—in February, one series and again in April 1982. This, he stated, was a continuing process.

1.26. The Secretary was frank enough to admit that one impediment, the Ordnance Factories Board suffered today was in the areas where matters of government policy were concerned like fresh recruitment or incentive schemes or bonus and things of that kind which required coordination with several Ministries. These were the areas which took time.

1.27. Asked if the High Level Committee had been meeting regularly, the witness revealed that the High Level Committee had not been meeting very regularly earlier, but in the last 14 or 15 months meetings were being held at least once a month.....Since the setting up of the High Level

Committee, it had received 362 proposals up to August 1982, for which the data had been compiled, and 316 cases had been cleared and approved.

1.28. Attention of the Secretary, Defence Production was drawn specifically to the following statement in a non-official memorandum :—

“It has made no improvement in the supply of weapons, ammunition and spares to the Army nor did such conferment of the powers to the Members of the Board help in improving the efficiency of the Board.”

To this, the Secretary's reaction was :—

“Powers are to purchase ; powers are to procure and powers are to buy. These things will not be reflected in production improvement within the same year or within the same month. I am also unable to accept the fact that there has been no improvement in the production performances. Figures will speak for themselves. You will see that there is increase in production with more or less the frozen manpower. I think it is a tribute to the ordnance factories that they have done extremely well.”

1.29. In pursuance of a recommendation by the Rajadhyakash-Committee powers of the Director General, Ordnance Factories were enhanced. A view has been expressed that this enhancement of power has had no impact on the working of the ordnance factories. Secretary, Defence Production, however, stated that they had delegated powers at all levels to ensure accountability down the line. He further stated that in March, 1979, the power structure was 'totally recast' and that the new structure was again reviewed in September, 1979 to see whether there was any impediment in the exercise of powers. He assured the Committee that the powers are enhanced from time to time on "case to case basis" particularly during the period February-April, 1982. The Committee stress that the question of adequate delegation of powers should be kept under constant review to ensure operational efficiency at all levels.

### E. Budget Estimates

1.30. The Budget Estimates and the actual expenditure on 'Ordnance Factories' during the last 4 years (1978-79 to 1981-82) was as under :—

	(Rs. in crores)			
	(1978-79	1979-80	1980-81	1981-82
Budget Estimates	436.45	424.63	458.90	555.22
Revised Estimates	414.42	477.14	546.23	682.34
Actual Expenditure	448.59	517.72	614.47	724.74
Variation between RE and Actuals	(+ )34.17	(+ )40.58	(+ )68.24	(+ )42.40

1.31. It will be seen that Excess Expenditure over revised estimates during 1978-79, 1979-80, 1980-81 and 1981-82 was Rs. 34.17 crores, Rs. 40.58 crores, Rs. 68.24 crores and Rs. 40.00 crores respectively.

1.32. Asked if this did not indicate that there was something wrong in the budgeting process, the Secretary, Defence Production explained during evidence :

"I would submit that the major factors which are responsible for this state of affairs, are by no means creditable from the point of view of healthy budgeting. But, it seems inevitable in the context of the fact, which is evidenced from data submitted earlier, that the ordnance factories have gone through a very high rate of growth in last 4-5 years, because we are attempting to do much more than what is possible. We do have slippages here and there but, by and large, the actual value of production has been substantially more than what was projected at the commencement of the year."

1.33. Explaining the factors which inhibit realistic forecasting of expenditure, the witness said :—

"We have readily available figures of 1981-82 on what we had projected at the time when the budget was framed. Our assumption was that the total production would be Rs. 760 crores. In fact, at the end of the year, the value of production amounted to Rs. 789 crores, an improvement on the projected production by Rs. 29 crores we ended with budget excess of Rs. 40 crores."

"The other (factor) is the unprecedented escalation in the cost of material for the last 4-5 years, both on capital and revenue account. A part of it is against orders placed in that year and a large part against orders placed in the previous year. In the case of some orders, which are subject to escalation, the element is determined only at the time of delivery. Therefore, it is very difficult to anticipate what is the liability on account of escalation. The third factor, which I can plead beyond my control, but Government cannot plead beyond its control, is the cut back as we made projections of the requirement of the year. Last year we had a cut back of Rs. 100 crores, which was to some extent set right at the time of the revised estimate. We are not in the same situation ; if there is a cut back on the material side, I cannot say that my supplies to the defence would be affected thereby. There is no direct relationship of



cash outgo with production ; I can cut back next year's production. So far as defence production is concerned, it is part of the army budget ; so, funds would be found from other areas and the overall defence budget would not be affected. But, broadly speaking, from the view point of the management of the ordnance factories, these are the factors which are inhibiting more accurate budgeting of raw materials."

1.34. The Chairman, Ordnance Factory Board observed in this connection as follow :—

"I agree with what Secretary, Defence Production has said. The Budget excesses in the case of Ordnance Factories were mainly on account of these two reasons."

The Secretary explained further—

"One other major factor I would like to explain is that it is not merely a function of ways and means forecasting for the year, but the fact is that very large portion of our operation is through agencies for which adjustments are made through book debits. We have seen that very large amounts are adjusted after the close of the year. It is partly procedural."

Explaining the remedies contemplated in this regard, the witness said :

"Now what we are trying to do from this year is to arrive at some kind of an understanding with the Ministry of Defence that there should be no cut-back in the ordnance factories budget without having a look at the production commitment....Now, we expect a better understanding established at the time the budgets are approved, i.e. they should be in full consultation with us.

The second is that on these agencies from whom we receive book debits we keep a very close watch so that the maximum amounts are brought in at the end of the year, that is, March-April, and there should be very few adjustment thereafter.....and we do hope that in the next two years we will be able to see much improvement."

1.35. The Committee find that during the last 4 years actual expenditure of Ordnance Factories was in excess of even the revised budget estimates to the extent of Rs 34.17 crores in 1978-79, Rs 40.58 crores in

1979-80, Rs 68.24 crores in 1980-81 and Rs 42.40 crores in 1981-82. According to the Secretary, Defence Production himself, excess expenditure over the revised estimates each year during the last 4 years does not speak of "healthy budgeting". He, however, explained that the main factors which had resulted in excess expenditure during these years were higher production commitment and realisations, escalation in cost of materials etc. The Chairman, OFB agreed during evidence that these factors were well within the realm of being foreseen and forecast. The Committee suggest that the system of estimates of expenditure should be streamlined early.

## CHAPTER II

### PLANNING AND PRODUCTION

#### A. Perspective Planning

2.1. Based on the dynamics of geo-political and geo-strategic environment the Army continued its modernisation schemes and equipment induction programmes which are incorporated in its 5 years plan and annual plans. The plan envisages substantial increases in the mechanisation, fire power, cross country mobility and night fighting capability. Accordingly the Army has to be progressively re-equipped with modern weapons and equipment. In line with the basic objective of self-reliance and self-sufficiency, modernisation is to a large extent being achieved by the development and manufacture of indigenous equipment in the Ordnance Factories. Not only has there been a steady growth in the quantum and value of production in the Ordnance Factories, several new items have also been productionised over the years.

2.2. The Services normally raise indents on Ordnance Factory Board 4 years in advance. This lead-time is required for production on planning procurement of materials and establishing the production processes. Taking into consideration the yearly requirements of the services, the capacities available *vis-a-vis* the product mix, the annual targets for all important items are fixed in a joint meeting taken by the Department of Defence Production with the OF Board and the service Headquarters. The programmes for the subsequent three years are also fixed/modified at the same time.

2.3. In a memorandum furnished to the Committee a non-official has stated that "central problem for defence production is the weakness in our defence equipment planning. At present there is a system of five years planning but this is largely a financial plan, supplemented by planning of forces and their equipment needs. What is lacking is the technology planning. Each equipment is selected by a particular service chief—no doubt on the basis of the advice of his staff—and recommended for adoption by Government. Thereafter the license to produce the equipment is negotiated with a foreign firm and production line is sought to be established in our defence production establishment. When the service Chiefs look for equipment the tendency is to choose an equipment which is well established, has proved itself and has been chosen by a number of other countries. By the time the choice is made the equipment has perhaps been in service for 2-3 years.

By the time we negotiate the license and produce the equipment in our country the equipment will be 7-8 years old. In other words as we start the equipment production it has been its obsolescence. Since any modern equipment has a life cycle of about 20 years when we introduce the equipment 7-8 years after its introduction in the advanced industrial countries we shall surely face the prospect that after 12 years the equipment will become obsolete with reference to the new generation equipment which will have been introduced in the advanced industrial countries. Secondly for various reasons our production process is less than optimally efficient. Because of that there is always pressure from the services to make good the deficiencies by imports from the country of origin of the equipment."

2.4. It has been pointed out in the Memorandum to the Committee that :—

- (a) the Services are reluctant to carry out such long range forward planning which will make choice of equipment and technologies less personalised and more institutionalised. Partly this may be because some service chief — not all — would like to keep the power of making recommendations on equipment as an *ad hoc* one in their own hands. At the same time such *ad hocist* decision making also subjects them to various kinds of pressures from various arms manufacturers and their associates and beneficiaries within the country. The long range planning process would necessitate services to keep in close touch with all current weapon developments abroad and also the impact of technology on future weapon developments. In turn this will involve a greater participation in production organisation and R&D organisation in equipment choice and planning.
- (b) at present the Services do not have such institutionalised long range planning process. Individual choices are made as and when a new equipment has appeared in the world market. Inevitably in such choices it is argued — with no doubt a lot of justification — that the user should be the ultimate decision maker. But the user oriented decision making inevitably tends to wait for new equipment to be developed and established so that thereafter the user can make a choice on the basis of alternative systems available. This decision making culture makes it inevitable for the country to continue with licensed production of equipment with a few years of built-in obsolescence.
- (c) There have been occasions on which the Services have changed their minds and reduced orders. This happens because the

Ministry of Defence and Finance (Def.) only exercise mechanical expenditure control and do not go into the question of how long a particular equipment now being introduced will be in service on the basis of changes in technology. This is because no attempt has ever been made to train people in the Ministries or the Services to carry out a total system analysis of a proposal.

2.5. It has been suggested that the total requirements should be placed as an initial order on the Ordnance Factories subject to yearly review and the factories should have the full autonomy to place orders for material and sub-systems in the most economical way up to 80 per cent of the total order.

2.6. On the question of choice making process in selection of equipments the Secretary, Defence Production stated during evidence :

"It is a highly simplistic presentation in the non-official memorandum that by the time the choice is made, the equipment is in service for two or three years.....It is not the case. The equipment may be 20 years in service before a choice is made or the equipment may not be in service at all before the choice is made. We have illustrations of all kinds. It may be undergoing trial in a foreign country. But if we feel that this is the thing we need, we will go in for it and negotiate..... In any event, there would be a time lag. All that I am trying is that it is not two years old when it is taken and it is not eight years old when it is produced. It may be even 20 years old when it is taken and it may be 25 years old when it is produced. But the decisions are not made on this basis. I will give an example, the last item the Ordnance Factories have taken for licensed production is a gun. The equipment came into being in the mid-sixties. Consideration by the Services begun ten years later, that is, in 1974. In 1976 the decision was taken to produce, and in 1979 the item was in production I have no doubt that it will stay for another 10 or 15 years. The life-cycles are long. Seven or eight years between *ab initio* research and development and production is an ideal that one can aim at. This is not the condition only in India, but it is so the world over.....You have to see what is your geo-political situation, what is the equipment that you have got, how long it would be in service, when is the time for phasing it out, and so on. We cannot afford all kinds of luxury ; somebody has produced something new in the world and we

should have it in our country the next day. They are all bound by long-term projections, perspective planning, which they are supposed to do. They are also committed to train their men in the uses of equipment which itself is a complex exercise. These are processes which are planned over a long span of time. Even changing uniforms, a very simple operation would take a minimum of three years—getting rid of the old uniform—because you do not have the production capacity which can produce nine lakhs at one time”.

The witness added, however, :

“.....But I think this would need to be deliberated with other organisations of the Ministry of Defence because we are, as I said, at the receiving end of both planning process as well as selection of equipment. We get into the picture for producing and we have very little say in the matter of what shall be decided upon for induction and what should be the time-frame for that”.

The Secretary, Defence Production further stated during evidence :—

“There is a considerable amount of thinking on this. There is need for perspective planning. But a view is often expressed that the changes take place so suddenly that 10-year planning is not of consequence. But in every civilized country, there is 10-year, 15-year perspective planning. But the plan can be changed if there is a changed situation. On this, we are in full agreement with you. There is a need for 10-15 year perspective planning. There is a need for greater co-ordination of the service planning with the production planning. We are working towards 10-year planning”.

2.7. The Committee desired to know that period which planning in advance countries covered. In reply, the Secretary stated that in Britain the Defence Ministry was now reported to be firm on 10 year plan. They had a system of sub-Committee which had been deciding the *inter se* priority and the requirements of the country with a perspective of 10 years.

2.8. The representative of Department of Defence Production stated as follow :—

“We accept the suggestions made in the memorandum. We were working on 10-year plan. There are various factors which we consider at the moment and on that basis we will prepare a long

term plan, which will be discussed at various levels. It had already been discussed at the highest levels with the Defence Services Organisations. They have their own planning set up or cell which will monitor and prepare a long term plan".

He informed the Committee that the plan would be ready by 1985.

2.9. On the question of institutionalising Defence Planning, the representative of the Department of Defence Production observed as follows :

"We are also considering this proposal. The suggestions of a sub-Committee on Plan are also on the same lines".

2.10. At present the planning by the Army which incorporates modernisation schemes as also weapon induction programme cover a time span of five years. On the basis of this the services raise indents on Ordnance Factory Board 4 years in advance. Secretary, Defence Production agreed that "there is a need for 10-15 years perspective planning" and also "for greater coordination of the Service planning with production planning." The Committee desire that these views should be given practical shape and there should be no delay in evolving a ten-year plan, which has been take up recently.

2.11. It is imperative for the success of the schemes and programmes of modernisation and weapon induction and their productionisation that these are conceived, formulated and monitored by an Apex Body consisting of experienced and knowledgeable service officers, Scientists, Engineers and those who are well versed in defence production and planning processes. The Committee recommend that Government may give a serious thought to the setting up of such an Apex Body at the earliest.

#### B. Achievement of Targets of Production

2.12. The year-wise growth in the value of production since 1977-78 for the Ordnance Factories as a whole is given below :—

(Rs. in crores)		
Year	Gross	Net
1977-78	545	417
1978-79	556	426
1979-80	600	443
1980-81	675	515
1981-82	788	594

2.13. The Committee wanted to know as to what percentage of targets of production were achieved each year by the Ordnance Factories. In reply, Department of Defence Production, furnished the following details :—

<i>Range of achievement vis-a-vis targets</i>	<i>Percentage of the total number of items</i>		
	<i>1979-80</i>	<i>1980-81</i>	<i>1981-82</i>
100% or over	77.0	79.0	84.0
70—100%	10.5	10.0	9.0
Below 70%	12.5	11.0	7.0

2.14. A statement showing the Product Group-wise achievements of annual targets of production in Ordnance Factories during each of the last 5 years is given below :—

<i>Group</i>	<i>% of items where agreed target achieved</i>				
	<i>1977-78</i>	<i>1978-79</i>	<i>1979-80</i>	<i>1980-81</i>	<i>1981-82</i>
Ammunition	60%	63%	45.83%	59.60%	63.26%
Weapons	93.30%	95%	50%	80.95%	92.50%
'B' Vehicles	100%	33.33%	—	66.66%	66.66%

2.15. Asked why it had not been possible to achieve the yearly production targets in full, the Ministry of Defence Production intimated in a note that the general reasons for slippages in production were mainly as under :—

1. Delay in material supply due to Industrial unrest in various parts at various times in the Civil Sector.
2. Power interruption and power cut.
3. Water-shortage in some locations.
4. Procurement problems through DGISM, London.



2.16. The Ministry has stated that the corrective measures being implemented by the Ordnance Factories Board are :—

- (a) Augmentation of capacity within OGs ;
- (b) Developing more sources from trade ; and
- (c) Placement of contracts on more than one party for the same item of a higher reliability in uninterrupted supply.

2.17. During the period 1977-78 to 1981-82 percentage of items where Ordnance Factories were able to achieve agreed targets of production of weapons was more than 80 in all the years except in 1979-80 when the percentage fell to 50 only. The Committee are, however, perturbed to find that during this period, the percentage of achievement of targets in respect of 'Ammunition' ranged between 45.83 and 60 and between 33.33 and 66.66 (except in 1977-78 when it was 100) in respect of 'B' Vehicles. Such serious shortfalls should not persist. According to the Ministry of Defence slippages in achievement of targets of production were due to delay in supply of material by the Civil Sector, power interruptions and cuts, water shortage in some localities and procurement problems through DGISM, London. Corrective steps like augmentation of capacity in the Ordnance Factories, developing more sources from trade and placement of contracts on more than one party are being implemented. The Committee recommend that a watch on efficacy of these measures may be kept and if at a stage it becomes evident that slippages are traceable to faulty planning and/or lax production control, corrective steps should be taken without delay.

### C. Capacity Utilisation

2.18. It has been stated in a note to the Committee that Ordnance Factories function more or less as captive production units of the Defence Services. The structure and functioning of their production systems represent a cumulative response over the years to the requirements priorities and policies of the 3 Services. The capacities in the Ordnance Factories are created generally on the basis of maintenance demands (annual training requirements) and the building of the "war wastage reserves" in a certain time frame. Thus, in-built reserve capacities are available in the Ordnance Factories during peace time, once war wastage reserves have been built up. One of the peculiar features of the working of the Ordnance Factories is the fluctuation of the workload during war and peace time. The capacity utilisation also fluctuates due to obsolescence of weapons and ammunition, dictated by considerations of Defence strategy, and the need to induct better and fast changing Defence equipments.

2.19. The Committee have been informed that the overall capacity utilisation in the Ordnance Factories is around 70 to 75%. The Committee

been informed that the capacity utilisation in the Clothing, Explosive & Chemical and optics/instruments and General Stores Group of Factories is almost full.

2.20. However, the capacity utilisation in some of the Factories is stated to be below the optimum levels, partly due to war wastage reserves having been built-up resulting in paucity of demands for products for which specialised capacities have been created and partly due to the gestation periods for some of the new capacities created to reach optimum levels of production.

2.21. It has been stated that efforts are being made for diversification of production where possible either by tooling up for production of components required by other Ordnance Factories or to meet civil trade requirements. Provision of minimal balancing plant and machinery is also made where such provision will lead to improve capacity utilisation as well as help increase production.

2.22. Optimum utilisation of capacities is, it is stated, paramount objective. It has been claimed, in a note, that this aspect is constantly kept in view while planning the activities in the Ordnance Factories Organisation and that capacity utilisation is reviewed periodically in the meetings of Ordnance Factory Board and High Level Committee.

2.23. The Committee enquired if the installed capacities had been worked out on the basis of one, two or three shifts. In reply, the Secretary explained during evidence that the capacities initially had been based on two shifts of 10 hours each. The concept at that time was that they should run two 10 hour shifts but almost all units were operated on two shifts of 8 hours plus one hour of overtime which was conventional. In certain areas the third shift was also necessary. But it is a very marginal third shift.

2.24. The Committee enquired as to what was the optimum level of utilisation laid down for factories and how many were working according to these norms. The witness stated :—

“It is very difficult to lay down any optimum level of utilisation. Our objective is to use at 100% and we keep trying to achieve that end. Sometimes the demand just disappears suddenly and the services switch on to something new. It takes time to break in production but by and large it is being taken care of. 70-75% for 31 factories taken together is creditable ; many companies in the public sector take pride in the fact that their capacity utilisation is 75%.

2.25. The Committee have been informed in a subsequent note that in some Factories, the capacity utilisation is below the optimum levels, partly due to lack of demand from the Services. All the Factories have minimum of one shift workload and the utilisation of the work force employed in the Factories is nearly 100%. In order to improve the utilisation of capacities, especially in the filling Factories of Chanda, Ordnance Factory Khamaria and Ammunition Factory Kirkee, the position regarding supplies of hardware from sister Factories or trade is being monitored closely. A number of projects for replacement and modernisation of Shell Forgings and Brass melting/Strip making capacities have been sanctioned recently to increase the supplies of Forgings/hardware. Production of new family of small arms and diversification of the product mix are also being taken up.

### *Constraints on Capacity Utilisation*

#### *(i) Power Shortage*

2.26. One of the constraints on optimum utilisation of capacity is the power shortage. It has been stated that the frequent power interruptions and load-sheddings, paralyses the production activities in the Ordnance Factories. Power shortage being experienced by ordnance factories is of two kinds—one is the power cuts imposed by the State Governments and the other is in the nature of trippings/load-sheddings. As an instance of power cuts, it has been mentioned that in Ordnance Factory Katni, against a requirement of 5 MW, only 1 MW had been sanctioned. Power shedding affects the production activities in two ways—one direct and other indirect. In direct effect, power cuts and frequent trippings lead to loss of man-hours. The loss of man-hours is much more than the period of power cut/shedding, because after each tripping/shedding for which no advance notice is given, the tools have to be reset before recommencing production. Such unscheduled trippings have also led to breakage of toolings in certain cases and damage to the lining of melting furnaces.

2.27. The Committee wanted to know why Ordnance had not thought of going in for captive power generation. In reply, the Ministry of Defence have intimated that the question of Ordnance Factories having their own captive power units was considered, but it did not appear to be a practicable proposition as besides large capital outlays involved in setting up such captive units, the problems regarding shortage of coal/diesel would plague these units also. However, it has been decided to put up a captive power plant at Grey Iron Foundry, Jabalpur which will not only feed the Grey Iron Foundry, but also Vehicle Factory, Jabalpur during the periods of power cuts/trippings.

2.28. The Committee asked if the problem of power supply being faced by Ordnance Factories in the country was taken up with the State Governments at any time and if so, what was the outcome. In reply, Ministry of Defence stated, in a Note, that the matter regarding uninterrupted power supply to ordnance factories was taken up with the respective State Governments by the Ministry of Defence/Ordnance Factory Board for according higher priority to these units. This had resulted in an improvement in the situation.

*(ii) Shortage of Supplies by Civil Trade*

2.29. The civil trade firms are not able to supply adequate quantities of components etc. due to power cuts/shortages. The civil trade firms are stated to have brought to the notice of the Ministry time and again that their production is low due to power shortage and cuts.

*(iii) Procurement of Stores through DGISM London*

2.30 The Ministry have stated that one of the reasons for slippages in production of Ordnance Factories is "procurement problems through DGISM, London". DGISM is the source of procurement from European based companies.

2.31. Director, General, India Supply Mission in London is part of the Indian High Commission, London. At one time it used to be under the Department of Supply (DGS & D). Some years ago the administrative control of the organisation of ISM was transferred to the Ministry of External Affairs.

2.32. The value of orders placed by Ordnance Factory Board on DGISM, London during the last four years is indicated below :—

Year	Value of Orders
1979-80	57
1980-81	63
1981-82	78
1982-83	80 (estimated)

2.33. According to a review made by the Ordnance Factory Board about the position of coverage of indents by contracts by ISM London during the period January, 1979 to September, 1982 is as under :—

<i>No. of indents placed</i>	<i>No. of items</i>	<i>No. of indents covered</i>	<i>No. of indents not covered/ partly covered</i>	<i>No. of items yet to be covered</i>
800	8223	602	198	1989

2.34. It will be seen from the above that 25% of the items are yet to be covered and these include indents placed as far back as 1978. Of these indents, about 60%—65% items are spares for which proprietary article certificates have been issued for procurement through manufacturers directly. The main reasons for delay in the conclusion of contracts by ISM London are stated to be inadequate technical support, under-staffing etc.

2.35. The Committee were informed during evidence that from a detailed review of the ISM it was found that procedure involved in procurement through ISM London was cumbersome because foreign exchange resources had to be obtained before placing any order. This process of procurement was said to be taking as many as 6-12 months and this was despite the DGISM having a computerised system. The Secretary, Defence Production however, was of the view that the functional control of this office should be with Defence. He indicated that meanwhile the thinking was that orders through ISM London should be minimised.

2.36. Department of Defence Production have, in a subsequent note, intimated that Government is separately looking into the functioning of ISM London, with a view to improving its efficiency and the following suggestions in this regard are under consideration :—

- (a) Identifying the work that could be transferred from ISM London to be handled in India.
- (b) Support facilities and procedural changes that would be necessary to enable the work being performed in India.
- (c) The delegation of powers to the user organisations for placing indents directly and for making payments without delay.

- (d) The staffing pattern keeping in view the functioning to be performed under the proposed new arrangements.
- (e) Transfer of functional control of ISM London to the Ministry of Defence, which is the main user of ISM London.

#### **D. Exports of Ordnance Items**

2.37. It has been stated in a memorandum furnished by a non-official that :

"I am not in favour of manufacturing civil requirements in Ordnance Factories as I feel if we were to adopt a rational and commercial approach within limits of our official Foreign Policy, there would be considerable scope for export of arms and ammunition by our Ordnance Factories and in fact it could be made conditional that a particular plant may be imported provided we eventually export and earn back the foreign exchange spent on it".

2.38. The Committee enquired if possibilities of export of our products had been explored and if so, with what success and whether it was possible or desirable to do so. The Secretary, Defence Production stated :

"The imports of plants of ordnance factories are such that, I do not think, we can tie them up with export".

He added however, that :

"But exports are looked upon separately where the DGOF production facilities have the capability and have a market in the world. Many of the South-East Asian countries, African countries, developing and under-developed countries, are operating with the same or older generation vintage equipment that we make or have. Even assuming that we would not be able to part with our latest technology equipment, there is a market. But the point is that the first charge on ordnance factories is to supply the army's requirements and not divert any part of their capacity for exports. Recently, an attempt has been made to use up the unutilised capacity. In four or five years we have surplus capacity available today, for example, small arms. Subject to its being in line with government policy, effort is being made to use up the available capacity for export. While setting up capacity for exports has not been

accepted by Government as a policy, using the potential and available capacity of defence production for exports is acceptable to Government. So in that area we have recently started exploring the possibility of developing the export trade and also sometimes in conjunction with trade for making components—not total assemblies—if there is an export market for certain products which are of interest to other countries and they are willing to buy them.”

2.39. Asked if we were in a position to export any items of our ordnance factories to some developed countries, the Secretary, Defence Production stated :—

“In the public sector under the Defence Ministry where there is a large leverage and flexibility, because their capacity is not entirely captive to one user, they are able to make a dent in the export market. In fact, the entire development cost can get paid by one package of export in certain cases in sophisticated areas of electronics equipment. So, it is possible. The technology that we have today is current in many developed countries. It is from the developed countries that we have got some of the technologies. The potential is there. But the decision has to be taken on investments to augment our capacity to meet the army's requirements plus exports. It cannot be for one or two years. It has to be continued and sustained. We are, however, very consciously looking at the possibility of using any surplus capacity available in the Ordnance Factories for the export market, preferably in neighbouring countries whose needs fit in with what we make.”

2.40. The Ordnance Factories function as captive units of the Defence Services. Ministry of Defence have drawn attention of the Committee to the fact that in ordnance factories “the capacity utilisation fluctuates due to obsolescence of weapons and ammunition, dictated by considerations of Defence strategy, and the need to induct better and fast changing Defence equipment.” Nevertheless, the Committee cannot look with equanimity that over all capacity utilisation in ordnance factories is around 70 to 75 per cent only. Even though Ordnance Factories function as departmental undertakings, they should maximise the utilisation of capacities.

2.41. In this connection, the Committee note with concern that even the defence sector should be suffering due to power shortages and trippings/

loadshedding causing not only breakage to toolings in certain cases but also in loss of manhours and failure to achieve production targets. The Committee urge that this matter should be taken up with the State Governments at a high level for according priority in the matter of supply of power to Ordnance Factories and Units catering to their requirements. Wherever the power shortages are found to be acute the Department of Defence Production should not hesitate in setting up captive power plants for ordnance factories.

2.42. The Committee find that during the period from January, 1979 to September, 1982 out of 800 indents placed on DGISM, London by Ordnance Factories so far, 198 indents have not yet been covered or have been partly covered and out of 8223 items indented, it is yet to cover 1989 items. The value of order placed by Ordnance Factories during 1979-80 to 1982-83 on DGISM, London ranged between Rs. 57 crores and Rs. 80 crores. The Committee have been informed that Government are looking into the functioning of ISM London, with a view to improving its efficiency. One of the suggestions being considered in this connection is to transfer functional control of ISM London to the Ministry of Defence. The Committee do not appreciate the existing position wherein the Ministry of External Affairs has control over the ISM, London which is mostly catering to the needs of the Ministry of Defence. In their view, it would be more appropriate to transfer control over this organisation to Ministry of Defence which is the main user of the facility of the organisation. The Committee would urge an early decision in this matter.

2.43. Lack of demand from the services due to changed pattern of demand and or war reserves having reached a saturation point is among the reasons responsible for emergence of spare capacities in ordnance factories. The Committee recommend that efforts should be made to utilise the spare capacities by diversification, of products to *inter alia* cater for exports especially to under-developed and developing countries within the parameters of our foreign policies or internal civil market.

2.44. The Committee understand further that there is scope for production of certain items like those in sophisticated areas of electronics and radars. We could look for export markets for such products in developed countries as the technologies in use in ordnance factories in such areas is stated to be comparable to that in use in these countries. The Committee are of the view that we should not hesitate in creating capacities in these areas not only for earning foreign exchange but also to provide us with a cushion to resort to in times of war when we could divert these capacities for internal use.



### E. Civil Trade

2.45. The Industrial Policy Resolution of 1956 classifies industries into three schedules having regard to the role which the State would play in each one of them. The Industrial Policy Resolution of 1956 has reserved the future development of arms and ammunition and allied defence equipment, aircraft, ship-building, etc. as the exclusive responsibility of the State which fall in Schedule 'A' of the Policy Resolution. In accordance with this policy resolution, the Ordnance Factories are captive units of the Defence Services. All the critical items are produced in the Ordnance Factories and only where there is no capacity established or where the capacity is inadequate in Ordnance Factories to meet the varying demand of Services the assistance from civil trade is obtained. Normally, any item which can be produced in the Ordnance Factories, with the available capacity and manpower, is not procured from civil trade.

- 2.46. Spare capacities and available skills in the Ordnance Factories are utilised for manufacture of selected items for other Government Departments, private civil sector etc. Major items offered for sale to civil sector are sporting weapons, pistons/sporting arms/ammunition for signals for Railways, mild steel drum and barrels, clothing and leather items, acids and chemicals, industrial grade N.C., ferrous and non-ferrous castings forgings and rolled sections.

2.47. The value of sales made by Ordnance Factories to Civil Sector during the period 1977-78 to 1980-81 was as under :—

<i>S. No.</i>	<i>Year</i>	<i>Total value of sales to civil sector (Rs. in crores)</i>
1.	1977-78	16.35
2.	1978-79	13.89
3.	1979-80	14.98
4.	1980-81	21.80

2.48. The Ministry have stated in a note that since the manufacture and marketing of the products for the civil market has not been one of the objectives of Ordnance Factories, there is no specific infrastructure or organisation required for marketing etc. The Ordnance Factories have

been conceived and set up primarily for the purpose of meeting the requirements of the Defence Services. The sales to non-Defence customers is only incidental to the basic role of Ordnance Factories to produce for Defence services. It is not considered desirable to earmark any part of the existing capacity at the expense of supplies to Defence Services or to create new capacities exclusively for civil market.

2.49. One of the objectives laid down for Ordnance Factories reads as follows :

“To maximise utilisation of installed capacity where necessary by diversification of production to meet the demands of the civil market, and for this purpose build up an effective marketing organisation”.

2.50. The Committee, therefore, asked if any marketing set up has been established in the Board to manage the sale to civil trade. In reply, the representative of DGOF stated during evidence :—

“We are in total agreement that we should have a good marketing set up. I would like to give a little history of this.

This aspect was gone into by a high-powered Committee headed by Shri Rajadhyaksha. They said, to begin with, the marketing of Ordnance Factories products should be done by public sector undertakings dealing with the same area but ultimately the Ordnance Factory should develop its own marketing network and, to start this activity, the Ordnance Factories should create a small full-time marketing cell, and develop a cadre of full-time marketing officers. We have already set up a civil trade cell at the Ordnance Factories Headquarters which is monitoring the civil trade activities.

We do take note of the point made by the august body and we will try to improve our marketing organisation. Though compared to the total production of ordnance factories, an amount of Rs. 22 crores may not be a very high figure, it is by itself a large amount.”

2.51. The Secretary, Defence Production added :

“Let me make a confession on this that we do not have a marketing organisation for civil trade. The DGOF has never accepted

his role as an operator in the civil market. This issue is now more pertinent because we are also hoping to establish at least a nucleus for export to balance the idle capacity here and there from time to time in certain areas.

There are two or three main areas of interest to public and to those other than the main customers. This is supposed to be a marginal production of no great consequence. Taken together, it may be worthwhile—Rs. 22 crores or so—but it cannot be at the cost of capacity which can be utilised for the Army. Therefore, they have not paid much attention to marketing or increasing the quantity or even improving the quality”.

2.52. Asked what profit was earned by Ordnance Factories on their sales to civil trade the Ministry stated in a note that :—

“the figures of profit earned on sales to civil trade are not readily available since this figure is not exhibited in the Annual Accounts of the Ordnance Factories. The sale proceeds are accounted for against general receipts and recoveries. The pricing policy is however, based on the what the market can bear”.

2.53. A view has been expressed before the Committee that only those items be manufactured in the Ordnance Factories which have no civil end-use or which are of high security classification and that as much of sub-contracting as possible should be done with civil establishments. It is pointed out that at present a lot of DGOF capacity is being utilised for production of items which can be easily procured from trade. A few examples given are :

- (a) Table Lamp
- (b) Almirah Wood
- (c) Table Folding
- (d) Basin-cam-Stand
- (e) Tentage
- (f) Covers Waterproof

Secretary, Defence Production stated during evidence that the items were no doubt minor but they were so important to army that they insisted on their manufacture by the Ordnance Factories.

2.54. The Committee note that even though the Government have accepted that one of the objectives of the Ordnance Factory Board is to "maximise utilisation of installed capacity where necessary by diversification of production to meet the demands of the civil market, and for this purpose build up an effective marketing organisation" no serious effort has been made to achieve this end. The value of sales by Ordnance Factories to civil sector has gone up from Rs. 16.35 crores in 1977-78 to Rs. 21.80 crores in 1980-81. There is scope for increasing this further and putting it on commercial basis. The Committee recommend that a marketing organisation should be set up soon. The Profit or Loss on sales to civil sector should in future be brought out in the Annual Reports.

2.55. Incidentally the Committee feel that such minor items like Table Lamps, Wooden Almirahs, Folding Tables, etc. produced in the Ordnance Factories for internal use could easily be procured from the civil trade. The Committee recommend that a review may be conducted to identify items which can be procured from the Trade and the Ordnance Factories relieved of the responsibility of manufacturing them thereby allowing them to concentrate on major items.

#### F. Ancillarisation

2.56. The Committee desired to know the value of production of ancillary units, ordnance factory-wise during the last 5 years. It has been stated by the Ministry that there are a number of ancillary units located in and around the ordnance Factories, which supplies various kind of materials/components to the Factories. Ordnance Factories take special steps to develop ancillary industries. An Ancillary Development Cell was set up to develop ancillary industries in and around Jabalpur in 1980. An Ancillary Development Advisory Committee has also been set up at Jabalpur with representatives of the Director of Industries, Madhya Pradesh and the representatives of small scale units. The Ancillary Development. Advisory Committee of Jabalpur decided in December 1980 to grant permanent ancillary status to 21 units w.e.f, 1.11.1980, after it was satisfied with the performance of these units.

2.57. Asked if no other work had been done in this direction, the DGOF stated ;

"We have concentrated on ancillarisation only at vehicles factory at Jabalpur because there we procure lots of items from trade. Sir, if we go in for ancillarisation then we have to confirm that we will take 50 per cent of their production every year. Now,

to confirm this is not possible because the load is fluctuating in the armament factories. What we have been doing is that we have been buying from small scale industries all over India and this we have been increasing. Apart from Jabalpur it is not possible to have ancillary units."

2.58. It is surprising that DGOF has no specific programme to develop ancillary units in and around ordnance factories. It is only at Jabalpur Factory that some work is stated to have been done. The Committee are of the view that Ordnance Factories should concentrate on basic and sophisticated items only and have small and sundry jobs done through ancillary industries. After all Ordnance Factories too have social responsibilities to encourage and develop ancillary industries under their umbrella. It is needless to point out that this would be in keeping with the Government's general policy of encouraging the small scale sector.

#### G. Short Supply of Ammunition and Equipment

2.59. It has been stated in a memorandum that most of the time the DGOF is reluctant to indicate his capacity for production of various items on the plea that such capacities are not well-defined. It is, therefore, not possible to assess his achievements in relation to the designed capacity. In the field of armament and ammunition for which the DGOF is the sole producer his capacity and performance is unmatched with the requirements of the army, resulting in the Army running short of its normal requirements and reserves. There have been serious shortfalls in production of certain types of Guns. In the field of vehicles and engines, DGOF's performance is said to be persistently lower than the army requirements.

2.60. It has been stated in a note by the Department that "it is not correct that most of the time DGOF is reluctant to indicate the capacity for production of various items. The capacities for production of various items depend upon a number of factors like, product mix, achievable capacity of the plant and machinery, available man-power, lead time required for procurement of raw materials/components, the order book position etc. The annual production programmes are drawn up in consultation with the Army Hqrs. taking into account the above factors. The Committee had pointed out 9 special items in respect of which production in the Ordnance Factories was stated to be less than the Army requirements. In reply, the Department of Defence Production have indicated the actual achievement of production programme fixed in consultation with the users. It has been stated on the basis of these figures that the production programmes for the above items have been gradually increased and the increased production targets have been met in most cases,

2.61. A point was raised during evidence whether the targets of production in respect of certain type of Gun (where there was a serious shortfall of 33 per cent with reference to original target) were revised merely to cover the likely shortfall in achievements against the original targets or on account of genuine difficulties such as certain equipment having not been received major breakdowns etc. The witness stated that in Ordnance Factories some major equipment had caused trouble. The problem lasted for two to three years. In such cases the assumptions made from time to time on the basis of indication given by the manufacturers and suppliers and technical people that the equipment would get established were not fulfilled.

2.62. In the case of another equipment, the Secretary Defence production admitted that the slippages had been much more. This was dependent on an imported component. Achievements in this case were 66% against the original target and 57% against the revised target in 1980-81. In 1981-82 it had been possible to achieve the revised target.

2.63. As regards the production of Vehicles in the Ordnance Factories, it has been stated that the actual achievable capacity, is much less than installed capacity due to following reasons :

- (a) Lower productivity of indigenous machines actually procured in lieu of imported machines provided in the Detailed Project Report.
- (b) Extra machining time required as compared to the time provided in the Project Report due to inferior quality of indigenous forgings ; castings etc.
- (c) Changes made in the product mix, as certain items which were planned to be 'bought out' items according to the Project Report, are being manufactured at Vehicle Factory Jabalpur and *vice-versa*.

2.64. In regard to vehicles the Secretary, Defence Production stated that the targets in respect of production of vehicles had been fulfilled in almost all the years barring 1978-79. In 1980-81 and 1982 the production had been increased and targets achieved. So far as the Army requirement was concerned the Secretary informed the Committee that in May, 1980 in addition to the outstandings which were to be covered over a period of four years, a sizeable indent had been received. This was beyond their

capacity as they had already reached an optimal level. The witness stated that it was not a case of bad planning but a new requirement. According to the procedure this requirement was to be met in three years lead time.

When asked if Ordnance Factories were the sole supplier of all the vehicles from other sources also, the witness stated that these vehicles were meant for operational requirements and no other manufacturer would be able to meet these requirements.

2.65. The Committee are shocked to observe sizeable shortfalls in production of certain weapons and equipments as against the original targets which, in a couple of cases brought to the notice of the Committee, were as much as 33 per cent and 66 per cent. This must have affected adversely the plans and programmes of our Defence Forces and consequently the state of our defence preparedness. In the case of vehicles the outstandings and the new demand placed in May 1980 taken together are admitted to be "beyond their (Ordnance Factory's) capacity".

With this being the position in peace time, the Committee wonder how the Ordnance Factories would be able to handle the war time situation, when the demands on them would be exacting. The Committee regard this as a very serious matter and would recommend a review by a High Powered Body of the past performance of the Ordnance Factories *vis-a-vis* the requirements of the Defence Forces to determine the factors responsible for failure on the part of the Ordnance Factories in meeting fully the projected Defence requirements and making suggestions to streamlining their functioning and generally gearing them up to meet the Defence needs. The Committee would like to be informed of the follow up action taken in this regard within six months.

#### H. Performance Audit

2.66. It has been pointed out in a memorandum given by a Non-official that if there are slippages on the part of the DGOF in supply of any components or ammunition to the Armed Forces, the Department enjoys immunity from public exposure as hardly anyone outside would know that had happened and why it had happened. There was thus no check or performance audit of the working of the Ordnance Factories and this brought in complacency and a certain amount of inefficiency.

2.67. According to the non-official, a suitable procedure should be devised and implemented to improve the accountability of the Department. This would mean that there has to be an investigation into the causes of each and every slippage, identification of those responsible for it, appropriate action against those concerned, and remedial measures to avoid/minimise recurrence of the slippage.

2.68. The Secretary, Defence Production explained during evidence that the various systems through which functioning of DGOF is being monitored are :—

- (1) The performance of the ordnance factories is reviewed by the Comptroller General Defence Accounts and the Auditor General audits the performance of the ordnance factories regularly. Internally, we have a very elaborate system. In fact, if I may say so, I have not seen such an elaborate system of monitoring performance.
- (2) We have a monitoring system at the highest level. The Defence Minister himself presides over production and supply meetings which cover the entire gamut of public sector undertakings and ordnance factories. It is open to three services to raise any issue of importance and bring it to the level of the Defence Minister.
- (3) Below that, there are any number of steering committees. Every major project is monitored by the steering committee which is headed by a very senior officer sometimes from the Service headquarters and sometimes by myself. They are monitored once in two or three months. Production itself is monitored very closely every month.

2.69. The Secretary, Defence Production stated that proposals to streamline budgetary controls and monitoring of projects executed through the agency of Engineer-in-Chief were under consideration.



2.70. While the Committee note that the performance of the Ordnance Factories is reviewed by the Comptroller General of Defence Accounts and the Auditor General they would like Ministry of Defence to examine the feasibility of introducing the system of comprehensive reviews of performance of the Ordnance Factories by an Audit Board associating experts as is being done in the case of selected public sector undertakings on yearly basis.

## CHAPTER III

### COST CONTROL

#### A. Analysis of Cost of Production

3.1. The Ministry of Defence have furnished the following data on cost of Production in Ordnance Factories at current prices during each of the last 4 years 1978—82 :

(Rs. in Crores)

	1978-79	1979-80	1980-81	1981-82
1. Gross value of Production	550.5	600.0	672.0	787.3
2. Cost of Direct Material	378.9 (68.82%)	409.9 (68.31%)	458.3 (68.30%)	541.6 (68.80%)
3. Cost of Direct Labour	39.2 (7.12%)	41.7 (6.95%)	45.2 (6.74%)	50.8 (6.45%)
4. Factory Overheads	129.1 (23.45%)	144.7 (24.12%)	163.3 (24.34%)	189.1 (24.02%)
5. Administrative Overheads	3.3 (0.59%)	3.7 (0.62%)	4.2 (0.62%)	5.8 (0.73%)

3.2. In the cost accounting procedure adopted in Ordnance Factories, overheads are divided into two parts—Fixed Overheads and Variable overheads, Variable Overheads vary directly in sympathy with production. This clearly represent the Factory overheads and no portion of administrative charges is included in the Variable Overheads.

3.3. It has been stated in a memorandum that the DGOF production costs are extremely high as indicated by the relative costs of some items

procured both through DGOF and trade. A few examples given in that Memorandum are as under :—

<i>Item</i>	<i>DGOF</i>	<i>Trade</i>
(a) Blanket	116.32	94.16
(b) Boots ankle	85.00	71.71
(c) Socks Men DG	13.67	10.25
(d) Jersey P/O	66.74	58.50

3.4. In comparing the above costs, it has been pointed out that the DGOF costs do not include the elements of profit and transportation costs which, if added, would increase the DGOF cost by at least another 40.50%.

Asked to state the factual position the Secretary, Defence Production explained during evidence :—

“I am not sure that in all cases of items which we make and which the trade makes, the price of DGOF is higher. Take the case of boots ankle. It may be 90 or 100 rupees. It all depends upon the specification ; these items have to go through strict inspection. The specification of the Army is very stringent. Our cost is Rs. 56 or Rs. 57 or Rs. 58. There may be some items where the price is higher ; but the position of non-utilisation of capacity does not seem to be the position today. For raw material we depend upon procurement through DGS & D. There is quality control of material. It is subject to military specifications. But the private trade is not subject to the same stringent quality control stipulations. We go to them when the requirement has to be met in a hurry or there is some little extra requirement which cannot be fully met by the DGOF. On vests what happened was, the prices quoted by private trade were very high ; then we said, look ; let us do without this ; let them not purchase it at this level.”

3.5. The Committee enquired if it has been ensured that the agencies through which materials for ordnance factories were being purchased

were not supplying those materials to ordnance factories on a price higher than the market price, the Secretary, Defence Production replied :—

“We do not evaluate DGS & D's operation in each item. He operates through a very well established system like tenders and quotations ; and they have a special set up for defence requirements. But here and there, when there is a slippage or some delay, the local GMs have the power to meet their production schedule. We found that they have had to pay higher prices.”

Asked why the Department itself was not making purchases, the Secretary stated :—

“We are not allowed. The requirement is that we have to go through the DGS&D.”

Asked if the Department could be a better purchaser the witness stated :—

“I am not so sure. We are happy with the bulk of supply coming through DGS&D. There is no problem. But in certain critical areas which are high priority area, where technological expertise is involved, where knowledge of equipment is involved, we can communicate with the manufacturer. Where general trade items or stores items are concerned there DGS&D is functioning in the same manner as anybody else is functioning.”

3.6. A non-official has pointed out that imported costs of similar equipment or even superior ones have been lower than those produced at the Ordnance Factories in India for the following reasons :—

- (i) Labour productivity is low due *inter alia* to poor industrial relations and very soft approach to labour. This is the main area for cost reduction and enhancement of productivity.
- (ii) DGOF officers are not well trained as managers. A beginning has been made to train them in modern managerial systems but the progress is slow.

- (iii) Small and uneconomical indents and break-in orders from the Defence Services make the production of such items uneconomical.
- (iv) Over heads are excessive and capacities are not fully utilised.
- (v) The machinery in use in many cases is not of the best quality.

3.7. The Secretary, Defence Production however, stated in evidence that :—

“The cost of production of DGOF, if anything, is by and large, lower than imported costs and indigenous costs in the civil trade. We have made analysis of these items from time to time. When we cannot fully meet the requirements we ourselves find alternatives so as to augment the same, but not finished materials. In regard to forgings our cost is near about fifty or sixty per cent of what the market would offer. So, I would submit, these generalisations would be unfair, if not un-charitable to the organisation. If you like we can submit some quotations, not only in respect of DGOF, but even in respect of some of the public sector companies which make profit, whether it is naval ship or platforms.”

3.8. The Committee find that in the cost of production at current prices in Ordnance Factories the cost of direct material is 68.30%, cost of Factory Overheads is 24.02%, cost of direct labour is 6.45% and administrative overheads are 0.73%. A view has been expressed that the production costs of DGOF are comparatively higher than those of the trade, as for example, in the case of Blanket Boots Ankles, socks DG and Jersey. The Secretary, Defence Production pleaded during evidence that items produced in Ordnance Factories were subject to stringent quality control stipulations. He, however, conceded that when sometimes General Managers of Ordnance Factories buy material direct from the market instead of through DGS & D, they had to pay higher price which pushed up the cost of final product. The Committee recommend that as cost of material constitutes more than 68 per cent of the total cost of production in Ordnance Factories, a strict watch should be kept on prices at which materials are purchased. Further there is need to control factory overheads especially by maximising the capacity utilisation.

### B. Control of Inventory

3.9. The Ministry of Defence have furnished the following data on the level of Inventory Holding in Ordnance Factories :—

	31.3.1979	31.3.1980	(Rs. in Crores) 31.3.1981
<i>Total Inventory</i>	351.00	417.00	525.77
<i>Value of Production</i>	550.57	600.00	674.00
<i>Working Stock</i>			
<i>Break up of Inventory Active</i>	265.00	317.00	396.33
<i>Non-moving</i>	24.00	17.00	34.35
<i>Slow-moving</i>	25.00	36.00	31.98
<i>Waste obsolete</i>	11.00	14.00	18.49
<i>Surplus stores</i>	4.00	4.00	4.11
<i>Maintenance stores</i>	22.00	29.00	40.51
<i>Average Inventory Holding in terms of months consumption</i>	—	10.29	10.29

3.10. Inventory Holding position is stated to be under constant monitoring both by OFB and by the Ministry in Board and HLC meetings. The following steps have been taken in this regard :—

- (1) ABC analysis of the inventories ;
- (2) Staggering of deliveries to match with production requirements ;
- (3) Disposal of non-moving and surplus stores.

3.11. Special Task Forces have been set up in Ordnance Factories to identify distortions in inventory holdings. Suitable remedial measures are being taken by OFB based on the findings of these Task Forces.

3.12. Insofar as material planning is concerned, Ordnance Factories have been permitted to take provisioning action against firm orders by the Army as shown below :—

#### (i) Imported items

For imported items, indents can be placed 36 months in advance of the period of utilisation, which is 12 months, i.e. for a

requirement upto a maximum period of 48 months less stocks and dues against firm demands.

**(ii) *Difficult indigenous items***

This category includes items where it is known from past experience or available information that supply did not materialise or is not likely to materialise in time and hence due to such anticipated long delays, provision for longer requirements is essential in the interest of production. For such items, Factories can place indents upto 26 months in advance of the period of utilisation which will be 6 months i.e. for a requirements upto 42 months less stocks and dues against firm orders.

**(iii) *Other indigenous items***

The existing orders empower the Ordnance Factories to make provisioning action upto a maximum period of 30 months less stocks and dues against firm demands.

3.13. Besides, optimum levels of stocks, which should be held by the Factories, have also been laid down. For imported items, 12 months stock level for non-stockpile items (9 months for stockpile items, exclusive of stockpile) ; for difficult indigenous items 9 months stock level and for indigences items, 6 month stock level have been prescribed as optimum levels.

3.14. Inventory holdings in the Ordnance Factories are it is stated under constant review and are generally kept within the limits laid down in the Government instructions.

3.15. It has been stated in a memorandum that improvements on present practices should be possible so as to reduce inventory carrying costs but that can be done only by the factory managements with adequate powers to react to market conditions and fluctuations in infrastructural conditions. This cannot be operated from Delhi.

3.16. Other suggestions that have been made in this connection are :

- (i) System of centralised procurement by DGOF be introduced.
- (ii) DGOF should be authorised to procure his requirement free of DGS&D and Department of Defence Supplies Control.
- (iii) Modern material management and inventory control system be instituted.

- (iv) Scientific determination of lead times and safety stocks be started.
- (v) Direct imports should be allowed rather than going to Public Sector companies for the purpose.

3.17. When asked if the prescribed inventory levels in Ordnance Factories had been laid down after any detailed examination of the operational needs of the factories, the DGOF stated during evidence that :

“The prescribed levels have been laid down by Government based on so many years of practice.”

Asked if there was no scope for reduction of these levels the DGOF stated :

“There is scope for reduction of these levels in regard to what we may call ‘A’ items, that is, most important or costly items. If we make what we call an ABC analysis of the items which are costly, their numbers hardly come to 10 to 15% only. In those items, it is possible to lay down period lesser than what is given here, This should be studied for each item. We can lay down the period for that. For the generalised items, whatever is given we better continue that.”

3.18. During evidence the Secretary, Defence Production reacted to these suggestions as under :—

- (a) “At the unit level we have made an analysis on the basis of last year’s performance and we have indentified 8-9 factories where the inventory levels, we feel, are relatively high and are capable of better management. We have set up a Task Force and we expect the situation will improve.
- (b) The question of DGOF being authorised to procure his requirements independent of DGS&D and the Department of Defence Supplies Control had been examined. The Department of Defence Supplies could not be left out. Department of Defence Supplies was not an alternative to DGS&D. It was not a constraint on DGOF. On the other hand it relieved the DGOF of his great responsibilities and left him to look after the task of production. DGOF also had not the expertise developed in the Department of Defence Supplies.



- (c) Preliminary steps have been taken to see if certain materials available in other units could be made use of.
- (d) DGOF added that since the materials were costing nearly 65%, of the DGOF budget it would pay itself if more attention was given to it. Scientific determination of lead times and safety stock could, to begin with be introduced for 'A' items.

There were advantages in buying through public sector companies because they specialised in the field. For example, in case of special steel, one would go to SAIL because they knew the job. Similarly, Hindustan Copper Corporation was in a better position than DGOF and there were some advantages in buying through them. Otherwise material might be purchased at a higher cost as the DGOF did not have world market information.

3.19. DGOF informed the Committee that DGOF had surplus stores to the tune of Rs. 9.72 crores. There were surplus items as they were not required by army for one reason or the other. In addition, DGOF had waste and obsolete items to the tune of Rs. 20.43 crores. He added, however, that this did not mean that they were not useful. For example non-ferrous metal scraps could be remelted and recycled. As the market was controlled by a few people they would underquote when DGOF tried to dispose of.

3.20. The Committee find that total inventory holding of Ordnance Factories has gone up from Rs. 351.00 crores as on 31.3.1979 to Rs. 525.77 crores as on 31.3.1981. The average holding in terms of month's consumption works out to 10.29 months in 1979-80 and 11.2 months in 1980-81. This by any standards appears to be unduly high. Further it transpired during evidence that out of 33 ordnance factories there are 8 or 9 factories where inventory levels are relatively higher. Special Task Forces have been set up in the Ordnance Factories to identify distortions in the inventory holdings. The Committee desire that norms for inventory holding should be spelt out and the inventory control improved. The Committee hope that it would be possible in the course of an year or two to bring down the level of inventory holdings to a reasonable level.

3.21. Surplus/obsolete materials valuing nearly Rs. 30 crores which are no longer needed by the Army are lying with DGOF. The Committee would like the DGOF to unburden itself of this stock at the earliest.

### C. Machine & Man hour Utilisation

3.22. The Committee enquired as to whether the system of monitoring machine and labour utilisation was being followed in factories.

In the reply, the Secretary, Defence Production stated in evidence that :—

“Our view is that the whole concept of keeping records of machines utilisation or manpower utilisation would be very enormous and costly. In the context of the fact that ordnance factories capacity is designed for a purpose different from pure commercial reasons plus the fact that today we are fairly satisfied with the utilisation of capacity. We do not have elaborate system of machine-hour utilisation and labour-hour utilisation. But indirect devices exist whereby these are controlled and it can be stated that there is hardly any idle time except perhaps in odd occasional emergent situations like power break-down, etc. The workers have to earn wages and wages can be earned only through output. A large number of our workers are on piece-rate system. If the workers do not perform the work by using their own machines or man-hours, they do not get wages. The expenditure is fully booked and reviewed from time to time. Like-wise, where there is workload, the machines are fully utilised.

By the large we do not maintain detailed analysis of man-hour and machine-hour utilisation but the indirect devices are adequate for management control.”

3.23. The Committee are unable to accept the plea of the Secretary, Department of Defence Production that as Ordnance Factories have not been set up for purely commercial purposes an elaborate system of monitoring man-hour and machine-hour utilisation in these factories is not needed. He pointed out that maintenance of records of manpower utilisation and machine-hour utilisation would be “very enormous and costly”. He felt that “indirect devices” being followed by ordnance factories are adequate for management control. The Committee feel that to enhance productivity of all the factors of production in the Ordnance Factories and control costs, it is necessary to apply modern management techniques in the factories which include a systematic study of man-hour and machine-hour utilisation. Ordnance Factories would therefore do well to evolve and introduce some such system at the earliest.

### **D. Cost and Times Over-runs—New Projects**

3.24. From the information made available to the Committee in respect of 7 new projects involving investment of more than Rs. 5 crores each put, through/carried out during the last 5 years in the Ordnance Factories, the Committee learn that all the projects are progressing according to schedule except the following :

The original project cost of New Propellant Factory was Rs. 91.19 crores. The revised cost of this project as assessed in July, 1976 was Rs. 113.43 crores. The main reasons for escalation in cost are stated to be increase in the cost of Plant and Machinery and Civil Works etc.

The Project for augmentation of Brass Melting and Strip Making capacity was sanctioned in August, 1978 at a cost of Rs. 7.40 crores. The project was planned to be completed in August, 1982 but is now expected to be completed in June, 1983. In this case there was delay in completion of civil work by MES.

3.25. In this connection the Secretary, Defence Production stated during evidence that :

“Broadly we ourselves are very much concerned about the time it takes to complete projects. We have taken a number of steps. Now we have a half-yearly review of all the major projects. A member of the OFB has been assigned specific responsibility to keep an eye on the on-going projects. The Ministry is now monitoring each major project. Since the delay are engineering delay, we are going to institutionalise it in the next month or to a system whereby we hope to induct a technical person from the MES into the OFB, who will be able to coordinate and monitor all the projects. In addition, the Board will have periodical meetings with the MES.

The cost over-run is due to time over-run. If the project is delayed by three years the cost also will go up by 30-40%.”

3.26. The Committee are concerned to note the delay in completion of 2 out of 7 important projects costing more than Rs. 5 crores each taken up for completion during the last 5 years. The project for setting up of new propellant factory was delayed by six months while the Project for augmentation of Brass Melting and Strip Making capacity in ordnance factories has been delayed by about 10 months.

Delay in execution of projects push up the cost of project. Secretary Defence Production assured the Committee in evidence that Government was "very much concerned" over such time over-run in major projects and that a Member of the Ordnance Factory Board had been assigned specific responsibility to keep an eye on the on-going projects. He also indicated that it was proposed to induct in the Ordnance Factory Board an Engineer from MES to ensure better coordination and monitoring of projects. The Committee would urge that the proposed arrangement may be put through without any delay.

## **CHAPTER IV**

### **QUALITY CONTROL**

#### **A. Quality Control Organisation**

4.1. Under the present system, the responsibility for approving the finished products produced by the Ordnance Factories for Defence Services rests with the Director General of Inspection (DGI). The DGI functions also include inspection of raw materials and components bought by the Factories, stage-inter-stage, and final inspection of finished products and assemblies and sub-assemblies. The DGI functions directly under the Depty. of Defence Production and each factory has one or more Inspectorate of the DGI attached to it. There are Factory's Work Inspection Groups, which inspect the goods before the same are offered to the DGI Inspector. All incoming raw materials, semi-processed items are inspected and tested by the local inspector who carries out stage, inter-stage and final inspection including proof testing of complete stores and approves minor deviations and relaxation in the production.

4.2. A non-official suggested to the Committee that as in U.K. quality assurance of equipment should be looked after by a Defence Quality Assurance Board (DQAB) consisting of MGC ( a senior Army Officer of the rank of General ) and his counterparts in Navy and Air Force. DQAB should be independent of OFB and answerable to the Chiefs of Staff.

4.3. The Secretary Defence Production stated during evidence in this connection that :

"This is an issue which was raised some time ago. It is, now under consideration at the Minister's level after discussion between Services and the Defence Ministry."

#### **B. Stage-inter-stage inspection**

4.4. It has been stated in a memorandum that Government orders were issued in 1965 for transfer of stage inspection during manufacture from Director General Inspection to Director General Ordnance Factories

and that it is surprising that even after 17 years, these have not been implemented.

4.5. It has been suggested that stage and inter-stage inspection responsibility be transferred to the DGOF as soon as necessary facilities are created and man-power mutually adjusted between DGI and DGOF. It would bring about quality consciousness in the factories. Proper Acceptance Quality levels (AQLs) must be drawn up. There will then be fewer cases of rejection.

4.6. The Secretary Defence Production informed the Committee during evidence that the entire responsibility for approving finished products by the Ordnance factories lay with Directorate General of Inspection which was an independent agency operating under the control of Deptt. of Defence Production but it was neither subservient to the customer nor to the producer. For older factories established before 1965 the total responsibility for quality control was with the independent agency of DGI, from checking of specifications and procurement of raw-material to every stage of production and final approval and delivery to the customer. In only two cases of mechanical vehicles and tanks the user had his final acceptance inspection because they wanted to make certain that the vehicles were not brought back for rectifications. The witness stated that so far as new factories were concerned all stage and inter-stage inspection responsibility had been vested with ordnance factories themselves. They had quality control groups which checked and inspected production at every stage. DGI had however, quality control points for monitoring the quality of production. There had been a problem for a number of years when a decision was taken that the entire stage and inter-stage responsibility of inspection might be transferred to factories. Since some problems arose and this decision could not be implemented, a view was taken that stage-inter-stage inspections in old factories for the time might continue with the DGI.

4.7. DGI functions also as "Authority Holding Sealed Particulars (AHSP). when the specifications were finalised for an item to be produced or imported then the particulars were sealed and they were entrusted to DGI to carry out inspection with reference to those specifications. At senior level they accepted deviations also.

4.8. In regard to transfer of stage and inter-stage inspection from DGI to Ordnance factories in respect of older factories the Rajadhyaksha Committee had recommended that this should be taken over by the ordnance factories but the problem arose about the personnel working in DGI who were involved in this work to be absorbed. The witness informed

the Committee that the modality was being worked out about this surplus manpower and in the next two to three years transfer would be phased out. A Working Group was at present going into these modalities.

4.9. It is accepted on all hands that transfer of stage and inter-stage inspection responsibility to the DGOF will bring about quality consciousness in the Ordnance Factories. Rajadhyaksha Committee was also in favour of it. The Committee cannot but deplore delay of 17 years in implementing this recommendation. Now that the decision has been taken in principle by Ministry of Defence for transfer of stage and inter-stage inspection responsibility to Ordnance Factories and in new factories (established after 1965) this responsibility has already been laid on the Factories, the Committee desire that modalities regarding adjustment of personnel between DGI and DGOF consequential to the transfer of this responsibility in respect of old Factories should now be thrashed out without any further delay.

### C. Quality of Equipment Produced in Ordnance Factories

4.10. Attention of the Committee has been drawn to the inadequacies found in the quality of a number of equipment produced in Ordnance Factories and supplied to armed forces of the country. It has been stated in a memorandum that "the quality control exercise by the DGOF appears to be inadequate as indicated by the following :

- (a) Mass scale defects in 105 HESH and SH (P) ammunition of OKAT & OFA manufacture.
- (b) Defects in Fuze 213.
- (c) Defects in Mines ND.
- (d) Mass scale rejection of fuze 117 produced by GSF Cossipore.
- (e) Ammunition remaining in bond for months and years together for rejection/failures at proof stage.
- ( f ) Large scale rejection of berets due to shade variations."

4.11. Regarding defects in SHP and Ammunition of OFA the Secretary stated during evidence that :

"Small-scale defects were found in items like SHP Ammunition of OFA. It was resolved long time ago. There were cartridge cases and this problem has been resolved now. There were defects in fuse system. This was not relating to D.G.O.F. These were imported by the army ; they found it defective."

Asked how the inspection result had found no defects the witness replied :

"It was imported by the army. There were some defects found. They asked DGOF whether he can repair it. This does not actually relate to OF. Regarding defects in mines, the containers were supplied by the trade. Filling of them is done by the ordnance factories."

Referring to defects in Mines ND, the witness added :

"We accept responsibility. Parts of defects were attributable to the use by the army. During the past 4 or 5 years these defects have also been examined. These things are to be done according to the requirements of the Army. The mines are laid out for training army men. They have to be fitted in with the changing need. Now, this has got a cap and the cap used to come out. These were creating problems. Now these problems have been tackled and these things have been rectified."

4.12. Regarding Fuse 117 the Secretary Defence Production stated during evidence :

"As far as fuse 117 is concerned, it is not correct to say that there had been mass rejection of this. This is a marginal fuse which was intended for a certain kind of ammunition, but for want of anything better, it was extended to other uses."

Asked at what stage the defect was found, the witness replied :  
"At the Proof stage."

4.13. In regard to ammunition remaining in bond for long intervals, the witness stated :

".....the production is delivered to the Army on a red card supply subject to proof ; and this problem was brought up last year by the Army during 1982-83 and 1981-82. We have substantially reduced the level of such red card and this is not a major problem any more."

4.14. Regarding rejection of berets, the Secretary, Department of Defence Production stated :

"This is a major problem and the material is purchased through DGS&D. It goes to inspection, but after processing it in the



factory for manufacture of performance processing, shade variations come up and we re-dye them and supply. It is inherent in the situation. That shade is such a complicated problem that so far as supplies to the Army are concerned, while at the initial time they insist on the very stringent quality requirement to be laid down for shade, there is no mechanical device which can prove whether this shade is equal to that shade.

4.15. The position in this regard has been explained in a note furnished by the Ministry extracted as follows :—

- (a) Mass scale defects in 105 HESH and SH (P) ammunition of OFKAT & OFA manufacture,

Cartridge Cases which were produced by OFKAT and OF Ambernath in early sixties had developed cracks during storage. The matter was investigated in depth by a Board of Enquiry and the defect was attributed to inadequate annealing of the mouth of Cartridge cases. Remedial measures like 'low temperature annealing' have been introduced and the defects have been completely removed.

- (b) Defects in Fuze 213.

This Fuze is not manufactured in the Ordnance Factories. Army had imported this Fuze, which was found defective. Army had requested DGOF to repair these defective fuzes, but due to lack of facilities in the Ordnance Factories, these fuzes could not be repaired.

- (c) Defects in Mine ND.

The high density polythene body is manufactured by civil trade. The filling of the explosives and sealing the body with the lid is done by DGOF. After years of storage and use, the fuze and the body of the mine showed up certain defects due to deterioration on account of ageing. As and when these defects were observed and reported, the Authority Holding Sealed Particulars investigated the defects in detail and carried out modifications in the design to overcome these defects. Such improvements covered the fuze and the mine body. Modifications of the mine fuze were carried out in 1976-77 and of the mine body in 1978-79.

The defects regarding separation of the lid from the mine body came to light in 1977. The quantity affected was 33,000 Nos. Majority of these mine were manufactured from 1965-69. Investigations revealed that separation occurred after repeated handling of the mine in training.

The mines used for training are subjected to periodical visual inspection by the units and the defective mines are segregated either for repair or for destruction. Modifications were carried out to overcome the lid separation.

(d) Mass scale rejections of Fuze 117 produced by GSF Cossipore.

Fuze 117 is of very old design and belongs to World War II Vintage. Since the design of Fuze 117 is a marginal design, certain failure occurred at proof stage and such lots were re-worked and re-proved before issue. Only fully proved ammunition is issued to the army. Technical investigations are in hand to find out the reasons for non-acceptance of Fuze 117. There has been no mass scale rejections of Fuze 117 produced by GSF.

(e) Large scale ejection of berets due to shade variation.

Woollen berets of different colours are manufactured at Ordnance Clothing Factory, Shahjahanpur. These berets are manufactured from woollen yarn duly dyed according to service specifications, which is procured by the Factory from civil trade through DGS&D. The woollen yarn is knitted, milled and berets are fabricated. During 1980-81 and 1981-82, considerable difficulties were experienced by the Factory in obtaining supplies of sufficient quantities of dark-green dyed yarn from trade and whatever meagre quantity of dark-green dyed yarn received duly inspected by the Service Inspector, were mostly accepted under deviations as they did not strictly conform to the specifications, on account of following reasons :—

- (i) Lack of colour fastness during milling.
- (ii) Lack of wash fastness.

Green colour is not a primary colour. It is a secondary colour and is a combination of yellow and blue colours. Bleeding of the constituent colour i.e. yellow and/or blue colour of the yarn during milling operation used to result in shade variations in final Berets.

However, during 1982-83, sufficient quantity of good dyed yarn has been received and the problem of manufacture of Dark Green Berets is progressively being removed, without much defect/rejections.

It will be seen from the above that the rejection of dark green berets in 80-81 and 81-82 was on account of sub-standard dyed yarn from civil trade.

- (f) Ammunition remaining in bond for months and years together for rejections/failures at proof,

Whenever any lot of ammunition cannot be proved due to various reasons, e.g. non-availability of proof range etc., the same are issued under 'red card'. Subsequently, such lots are proved and removed from 'red cards'. During the last 12 months, concerted efforts were made and the quantity of ammunition issued under red card has been reduced considerably.

4.16. Though the Department has furnished to the Committee an elaborate note indicating the efforts made to rectify the defects in the equipment and ammunition, the fact remains that in certain cases the equipment and ammunition turned out by the Ordnance Factories was found defective. This by itself paints a dismal picture and calls for a more rigorous quality control by the Ordnance Factories and the DGI over the finished products of the Ordnance Factories.

4.17. The Committee do not approve of the system of issue of ammunition on 'Red Card' without trial. The Committee desire that the practice of issue of lots under 'red card' should be discouraged and if issue of a lot without proof has to be resorted to under exceptional circumstances every effort should be made to have it proved at the earliest possible opportunity.

## **CHAPTER V**

### **MISCELLANEOUS MATTERS**

#### **A. Overstaffing**

5.1. It has been stated in a non-official memorandum submitted to the Committee that most Ordnance Factories are overstaffed at all levels and that there is scope to adjust this manpower by diverting the men at all levels to new projects instead of going in for recruitment.

5.2. Enquired whether any overall assessment in this regard has been made, and if so, with what results, the Secretary, Defence Production stated in evidence that :—

“It has been established that there is no overstaffing in relation to productivity but, more or less, the constant staffing pattern has increased considerably. 73 per cent of the total strength is represented by industrial employees. In the last three years, the staff strength has gone up by 10,000 from 1.72 lacks to 1.82 lacks against which the value of production has gone up from Rs. 600 crores to Rs. 860 crores, that is, an increase of Rs. 240 crores. Taking the entire labour force and the entire value of production, year after year, the per capita value of production has gone up from Rs. 33,000 in 1978-79 to Rs. 45,000 in 1981-82. So, if there was overstaffing, as I said earlier, this must have been five years ago. There is no such thing at the moment. Also this increase that I am talking about should take into account the fact that we have gone into major investment decisions during this period and new factories are coming up. Labour would not be entirely productive from the first day ; there is a gestation period of six to twelve months, and so on. Taking that factor into account, the figures I have given you seem quite satisfactory”.

As for the future, the witness stated that :—

“So far as future is concerned, in this High Level Committee and at the Ordnance Factory Board, we have taken a definite view that every additional post that is required now will have to take into account the kind of rationalisation. Whether there is

possibility of deployment or not. Otherwise no new post will be sanctioned except for specific needs of new projects”.

5.3. The Committee are happy to note the assurance given by Secretary, Defence Production during evidence that “if there was overstaffing five years ago, there is no overstaffing in Ordnance Factories now”. Not only that, according to him it has been decided that in future no new post would be created in ordnance factories except for specific needs of new projects.

## B. Staff Welfare

### (i) Medical Facilities

5.4. It has been pointed out to the Committee that the main irritants which cause disruption in otherwise good industrial relations in the ordnance factories relate to :—

1. Medical Facilities—in which case although hospitals have been provided, they suffer from shortage of doctors and there are long queues.
2. Delays in payment to workers of their dues like petty advances, D.A. and terminal benefits etc.

With regard to medical facilities and shortage of doctors in the factory hospitals, Defence Secretary stated in evidence that :

“We ourselves are not entirely satisfied with one aspect. The pay scales of doctors are such that we are not able to attract and retain doctors, it is partly because of the scales, and partly due to the location of units and partly also due to the fact that this profession is in heavy demand all over the country.....we have 23 hospitals and 68 health clinics and dispensaries spread all over the country. The total bed strength is 1,281 and we have something like 200 people at different levels as medical officers, right up to the Director General of Health Services. Apart from that, there are 6 specialist centres, which are being opened at selected places. Specialists are being recruited for them so that there are self-contained in-house specialist treatment facilities. At the moment we are depending on military hospitals and other agencies.

So far as doctors are concerned, we are trying to upgrade the levels. We are considering the upgrading of more posts at the higher levels, between Rs. 1100-1600 and Rs. 1500-2000, so

that more people could be attracted. We are also making short-term appointments to get over the problem of vacancies remaining unfilled, so that we treat them on a deliberate anticipated short tenure”.

The witness added that :

The selection of these doctors is done through the Ministry of Health and UPSC. We do not make any direct recruitment. We take them as part of the country's pool, they are assigned to us after selection. But they do survive long with us ; may be, the same people have applied for jobs in the public sector undertakings.”

*(ii) Housing and Water Supply*

5.6. It has been represented that though the Government orders lay down that 50% of the single shift strength of the industrial workers will be provided accommodation in the factory estate, this order has not been followed, resulting in acute shortage of accommodation in some factory estate. There have also been problems of inadequate water supply.

5.7. Explaining the position in this regard, the Defence Secretary stated that :

“The Government's orders of 50% have not been followed. The norms laid down in ordnance factories are :

50% of single shift strength for semi and unskilled ;

80% for highly skilled on single shift basis ;

100% for officers.

There is economy cut of 40% of these norms.

The witness assured the Committee that :—

“On 1.4.1980 we had 32864 quarters for all categories. 6234 houses are under construction. But I would like to assure the Committee we are making substantial provision in Defence Plan as well as Annual Budget to make up the deficiency as far as possible.”

5.8. The Committee are constrained to observe that medical facilities for the workers of the Ordnance Factories are far short of the requirements. Although there are 23 hospitals and 68 clinics the number of doctors available to man these hospitals/clinics is not adequate, Secretary. Defence Production

attributed the shortage of doctors to two facts. First, the scales offered to Doctors by Ordnance Factories were not adequate to attract them ; Secondly, doctors are reluctant to postings where factories are located. The Committee recommend that suitable incentives should be evolved to attract doctors.

5.9. The Committee understand that even though Government orders stipulate that 50% of the single shift strength of the industrial workers in factories may be provided with accommodation in the factory estate, this order has not been followed by Ordnance Factories. This had resulted in shortage of accommodation in some factory estates. Inadequate water supply is also reported. The Committee would like these matters to be examined and measures taken to provide accommodation atleast as per the norms laid down and adequate water supply in accordance with a time-bound programme.

### C. Worker's Participation in Management

5.10. It has been brought to the notice of the Committee that the IE, NIE and NGO cadre has at present practically no involvement in the working of the factory by way of participation in the Management of the Unit. It has been suggested to the Committee that each Factory should form an Advisory Body with representatives of recognised/unrecognised unions and the General Manager should associate this Committee with the day to day working of the factory, finding solutions to problems achieving targets, seeking their suggestions and arriving at unanimous decisions on practically all issues.

5.11. Asked to give the views of the Department on the above suggestion, the representative of the Ministry stated in evidence :

"We have got in each factory the Joint Consultative Machinery Level IV. It consists of two representatives of the Workers Committee and two representatives each of the recognised unions. This is headed by the General Manager or the seniormost officer next to him and they consider all the problems concerning the working conditions within the purview of the General Manager. The Workers Committee consists of 10 elected representatives of workmen and 10 nominated representatives of the Management. It is headed by the senior officer of the factory and it considers all matters concerning the welfare of the workers, their wages, service conditions etc. Besides there are safety and other Councils at factory levels which are constituted for advising the Management regarding productivity and other allied matters. We have also got the JCM level III and it is headed by the Chairman of the Ordnance Factory Board which consists of representatives of employees,

four representatives from each of the Federations, one representative from the All India Non-Gazetted Officers' Association, one from the All India Clerical Employees Association, one from the Indian Ordnance Factory Supervisors' Association, and one from the Ordnance Factories Headquarters Employees' Association. This forum considers all matters which are within the purview of the Ordnance Factory Board. They consider and discuss some of the important items such as risk allowance, incentive schemes, promotional avenues, career planning, increasing productivity etc. Recently we have held a Seminar at Poona attended by all the representatives of JCM level III as well as representatives of the Associations and Federations to consider how to improve productivity and we have taken a decision. We have also formed a Productivity Council with the various Federations' representatives and employees' representatives."

5.12. On the question of workers' participation the witness opined that :

"We feel that it would not be practicable because in each factory there are several unions which are not recognised also."

5.13. The Committee note that each Ordnance Factory has a Joint Consultative Machinery. While such a machinery may be useful regulate the conditions of service of workers satisfactorily, the Committee feel that a system should be worked out whereby the workers are associated with the endeavours of the management for improving Production and Productivity both in quantitative and qualitative terms. The Committee would await the steps proposed to be taken in this regard.

#### **D. Industrial Relations**

5.14. The Ministry has, in a Note, claimed that barring stray instances of unrest, industrial relations in ordnance factories have, by and large, been fairly harmonious. It has been stated, however, that there was a token shrike on 18.12.1980 resulting in loss to the tune of Rs. 181 lakhs during 1980. The demands put forward were as follows :-

- (i) Payment of Bonus to all the Defence Employees;
- (ii) Revision of pay scales and parity of wages with Railway etc.

5.15, Asked to state whether the demands of the Defence employees had been examined at a high level and an approach in the matter evolved,



The Secretary Defence Production stated in evidence that -

"the demand is for payment of bonus to all defence employees, revision of pay scales and parity of scales with railways. So far as the payment of bonus is concerned, the productivity - linked bonus scheme covered the bulk of our employees. Out of the a few people that were left out, one single cadre was the teachers in the schools. This was purely accidental, because at the time the scheme was being considered, an issue was raised that there are schools in the defence side, schools run by the army, air force etc. which are left behind. The railways have got the productivity-linked bonus. We have been struggling to get our teachers covered, but it has not been done, because the entire scheme is on an experimental basis, and it has been reviewed on an all India basis. So, only a small number of 1,000 people are left out. Otherwise, about 1,96 lakhs people are covered. ;

Asked if employees of Ordnance were now satisfied, the witness said "They should be so. The only demand is to include those who are left out"

5.16. The Committee are gratified to learn that industrial relations in Ordnance Factories have been by and large 'harmonious'. The Committee, however, note that two important demands of the Ordnance Factory employees are awaiting decision regarding which there was a token strike on 18.12.1980 resulting in loss of production to the tune of Rs. 18 lakhs during 1980. One of these demands related to payment of bonus to all Defence Employees.

The Committee were told that almost all the workers in Ordnance Factories now get Bonus except about 1,000 teachers serving in Schools set up by Ordnance Factories and that the question of covering this section of employees was under consideration. The Committee urge an early decision in the matter.

NEW DELHI ;  
April 28, 1983  
 Vaisakha 8, 1905 (Saka)

BANSI LAL,  
 Chairman,  
 Estimates Committee.

## APPENDIX

### Summary of Recommendations/Observations

Sl. No.	Para No.	Recommendation
1	2	3
1	1.18	<p>The Committee find that on the basis of a reorganisation of the structure of the Ordnance Factories administration the Ordnance Factory Board was set up in 1979. Besides Chairman, the Board has seven Members. Of these, three Members are directly responsible to oversee the functioning of as many as 33 Ordnance Factories, with a total turnover of Rs. 536 crores. The Committee feel that the span control is too wide to be conducive to effective supervision, direction and control by the Functional Members of the Board. They accordingly recommend that the number of Functional Members of the Board may be suitably increased to ensure greater functional efficiency.</p>

- 2
- 1.19
- It surprises the Committee that Ordnance Factory Board constituted as it is today does not have a single representative of the Armed Forces which are the largest indentors of arms and ammunition. In fact Rajadhyaksha Committee had recommended that MGO should be ex-office Member of the Board. The Secretary, Defence Production pleaded in evidence that his suggestion would not be acceptable to Army authorities as MGO had "total responsibility" in Army Headquarters itself. The

Secretary, however, indicated that Rajadhyaksha Committee's recommendation was still under consideration of Government. The Committee feel that if MGO cannot be spared by Army Headquarters to serve as a Member of Ordnance Factory Board, it should not be too difficult to nominate some other service officer of appropriate rank to be a Part time Member of the Board. Such an arrangement, the Committee, feel, would make for better coordination with, and greater involvement of, the Armed Forces in the production planning and processes of the Ordnance Factories.

1.20

From the data furnished to the Committee it is seen that the Chairman and Members of the OFB (which is located at Calcutta) have to frequently shuttle between Calcutta and Delhi to confer and coordinate with the Ministry of Defence and Service Headquarters which are located in Delhi. During the last 3 years the Chairman, OFB had to visit Delhi 54 days per year on an average. Visits by other Members ranged between 15 to 53 days in an year. The Committee feel that this arrangement is not only time consuming and costly but also detracts Chairman and Members of the OFB from paying close attention to the operational problems of the Factories. The Committee, therefore, see a distinct advantage in shifting the Headquarters of OFB to Delhi and would like Government to consider the matter in all its aspects without delay.

1.29

In pursuance of a recommendation by the Rajadhyaksha Committee powers of the Director General, Ordnance Factories were enhanced. A

view has been expressed that this enhancement of power had no impact on the working of the Ordnance factories. Secretary, Defence Production, however, stated that they had delegated powers at all levels to ensure accountability down the line. He further stated that in March, 1979, the power structure was 'totally recast' and that new structure was again reviewed in September, 1979 to see whether there was any impediment in the exercise of powers. He assured the Committee that the powers are enhanced from time to time on "case to case basis" particularly during the period February-April, 1982. The Committee stress that the question of adequate delegation of power should be kept under constant review to ensure operational efficiency at all levels.

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The Committee find that during the last 4 years actual expenditure of Ordnance Factories was in excess of even the revised budget estimates to extent of Rs. 34.17 crores in 1978-79, Rs. 40.58 crores in 1979-80, Rs. 68.24 crores in 1980-81 and Rs. 42.40 crores in 1981-82. According to the Secretary, Defence Production himself, excess expenditure over the revised estimates each year during the last 4 years does not speak of "healthy budgeting". He, however, explained that the main factors which had resulted in excess expenditure during these years were higher production commitment and realisations, escalation in cost of materials etc. The Chairman, OFB agreed during evidence that these factors were well within the realm of being foreseen and forecast. The Committee suggest that the system of estimates of expenditure should be streamlined early.

2.10

At present the planning by the Army which incorporates modernisation schemes as also weapon induction programme covers a time span of five years. On the basis of this the services raise indents on Ordnance Factory Board 4 years in advance. Secretary Defence Production agreed that "there is a need or 10-15 years perspective planning" and also "for greater coordination of the Service planning with production planning." The Committee desire that these views should be given practical shape and there should be no delay in evolving a ten-year Plan, which has been taken up recently.

2.11

It is imperative for the success of the schemes and programmes of modernisation and weapon induction and their productionisation that these are conceived, formulated and monitored by an Apex Body consisting of experienced and knowledgeable service officers, Scientists, Engineers and those who are well versed in defence production and planning processes. The Committee recommend that Government may give a serious thought to the setting up of such an Apex Body at the earliest.

2.17

During the period 1977-78 to 1981-82 per centage of items where Ordnance Factories were able to achieve agreed targets of production of weapons was more than 80 in all the years except in 1979-80 when the percentage fell to 50 only. The Committee are, however, perturbed to find that during this period, the percentage of achievement of targets in respect of 'Ammunition' ranged between 45.83 and 60 and between 33.33 and 66.66 (except in 1977-78 when it was 100) in respect of 'B' Vehicles. Such

serious shortfalls should not persist. According to the Ministry of Defence slippages in achievement of targets of production were due to delay in supply of material by the Civil Sector, power interruptions and cuts, water shortage in some localities and procurement problems though DGISM, London. Corrective steps like augmentation of capacity in the Ordnance Factories, developing more sources from trade and placement of contracts on more than one party are being implemented. The Committee recommend that a watch on efficacy of these measures may be kept and if at a stage it becomes evident that slippages are traceable to faulty planning and/or lax production control, corrective steps should be taken without delay.

2

The Ordnance Ordnance Factories function as captive units of the Defence Services. Ministry of Defence have drawn attention of the Committee to the fact that in Ordnance factories "the capacity utilisation fluctuates due to obsolescence of weapons and ammunition, dictated by considerations of Defence strategy, and the need to induct better and fast changing Defence equipment." Nevertheless, the Committee cannot look with equanimity that over all capacity utilisation in Ordnance Factories is around 70 to 75 per cent only. Even though Ordnance Factories function as departmental undertakings, they should maximise the utilisation of capacities.

In this connection, the Committee note with concern that even the defence sector should be suffering due to power shortages and tripping

loadshedding causing not only breakage to toolings in certain cases but also in loss of manhours and failure to achieve production targets. The Committee urge that this matter should be taken up with the State Governments at a high level for according priority in the matter of supply of power to Ordnance Factories and Units catering to their requirements. Wherever the power shortages are found to be acute the Department of Defence Production should not hesitate in setting up captive power plants for ordnance factories.

The Committee find that during the period from January, 1979 to September, 1982 out of 800 indents placed on DGISM, London by Ordnance Factories so far, 198 indents have not yet been covered or have been partly covered and out of 8223 items indented, it is yet to cover 1989 items. The value of order placed by Ordnance Factories during 1979-80 to 1982-83 on DGISM, London ranged between Rs. 57 crores and Rs. 80 crores. The Committee have been informed that Government are looking into the functioning of ISM London, with a view to improving its efficiency. One of the suggestions being considered in this connection is to transfer functional control of ISM London to the Ministry of Defence. The Committee do not appreciate the existing position wherein the Ministry of External Affairs has control over the ISM, London which is mostly catering to the needs of the Ministry of Defence. In their view, it would be more appropriate to transfer control over this organisation to Ministry of Defence which is the main user of the facility of the organisation. The

Committee would urge an early decision in this matter.

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2.43

Lack of demand from the services due to changed pattern of demand or war reserves having reached a saturation point is among the reasons responsible for emergence of spare capacities in ordnance factories. The Committee recommend that efforts should be made to utilise the spare capacities by diversification, of products to *inter alia* cater for exports especially to under-developed and developing countries within the parameters of our foreign policies or internal civil market.

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2.44

The Committee understand further that there is scope for production of certain items like those in sophisticated areas of electronics and radars. We could look for export markets for such products in developed countries as the technologies in use in ordnance factories in such areas is stated to be comparable to that in use in these countries. The Committee are of the view that we should not hesitate in creating capacities in these areas not only for earning foreign exchange but also to provide us with a cushion to resort to in times of war when we could divert these capacities for internal use.

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2.54

The Committee note that even though the Government have accepted that one of the objectives of the Ordnance Factory Board is to "maximise utilisation of installed capacity where necessary by diversification of production to meet the demands of the civil market, and for this purpose



build up an effective marketing organisation" no serious effort has been made to achieve this end. The value of sales by Ordnance Factories to civil sector has gone up from Rs. 16.35 crores in 1977-78 to Rs. 21.80 crores in 1980-81. There is scope for increasing this further and putting it on commercial basis. The Committee recommend that a marketing organisation should be set up soon. The Profit or Loss on sales to civil sector should in future be brought out in the Annual Reports.

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2.55

Incidentally the Committee feel that such minor items like Table Lamps, Wooden Almirahs; Folding Table, etc. produced in the Ordnance Factories for internal use could easily be procured from the civil trade. The Committee recommend that a review may be conducted to identify items which can be procured from the Trade and the Ordnance Factories relieved of the responsibility of manufacturing them there by allowing them to concentrate on major items.

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2.58

It is surprising that DGOF has no specific programme to develop ancillary units in and around Ordnance factories. It is only at Jabalpur Factory that some work is stated to have been done. The Committee are of the view that Ordnance Factories should concentrate on basic and sophisticated items only and have small and sundry jobs done through ancillary industries. After all Ordnance Factories too have social responsibilities to encourage and develop ancillary industries under their umbrella. It is needless to point out that this would be in keeping with the Government's general policy of encouraging the small scale sector.

The Committee are shocked to observe sizeable shortfalls in production of certain weapons and equipments as againsts the original targets which, in a couple of cases brought to the notice of the Committee, were as much as 33 per cent and 66 per cent. This must have affected adversely the state plans and programmes of our Defence Forces and consequently the state of our defence preparedness. In the case of vehicles the outstandings and the new demand placed in May 1980 taken together are admitted to be "beyond their (Ordnance Factory's) capacity".

With this being the position in peace time, the Committee wonder how the Ordnance Factories would be able to handle the war time situation, when the demands on them would be exacting. The Committee regard this as a very serious matter and would recommend a review by a High Powered Body, of the past performance of the Ordnance Factories *vis-à-vis* the requirements of the Defence Forces to determine the factors responsible for failure on the part of the Ordnance Factories in meeting fully the projected Defence requirements and making suggestions to streamlining their functioning and generally gearing them up to meet the Defence needs. The Committee would like to be informed of the follow up action taken in this regard within six months.

While the Committee note that the performance of the Ordnance Factories is reviewed by the Comptroller General of Defence Accounts and the Auditor General they would like Ministry of Defence to examine

the feasibility of introducing the system of comprehensive reviews of performance the Ordnance Factories by an Audit Board associating experts as is being done in the case of selected public sector undertakings on yearly basis.

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3.8

The Committee find that in the cost of production at current prices in Ordnance Factories the cost of direct material is 68.80 per cent, cost of Factory overheads is 24.02 per cent cost of direct labour is 6.45% and administrative overheads are 0.73%. A view has been expressed that the production costs of DGOF are comparatively higher than those of the trade, as for example, in the case of Blankets, Boots Ankles, Socks DG and Jersey. The Secretary, Defence Production pleaded during evidence that items produced in Ordnance Factories were subject to stringent quality control stipulations. He, however, conceded that when sometimes General Managers of Ordnance Factories buy material direct from the market instead of through DGS & D, they had to pay higher price which pushed up the cost of final product. The Committee recommend that as cost of material constitutes more than 68 per cent of the total cost of production in Ordnance Factories, a strict watch should be kept on prices at which materials are purchased. Further there is need to control factory overheads especially by maximising the capacity utilisation.

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3.20

The Committee find that total inventory holding of Ordnance Factories has gone up from Rs. 351.00 crores as on 31.3.1979 to Rs. 525.77 crores.

as on 31.3.1981. The average holding in terms of months' consumption works out to 10.29 months in 1979-80 and 11.2 months in 1980-81. This by any standards appears to be unduly high. Further it transpired during evidence that out of 33 ordnance factories there are 8 or 9 factories where inventory levels are relatively higher. Special Task Forces have been set up in the Ordnance Factories to identify distortions in the inventory holdings. The Committee desire that norms for inventory holding should be spelt out and the inventory control improved. The Committee hope that it would be possible in the course of an year or two to bring down the level of inventory holdings to a reasonable level.

3.21

Surplus/obsolete materials valuing nearly Rs. 30 crores which are no longer needed by the Army are lying with DGOF. The Committee would like the DGOF to unburden it self of this stock at the earliest.

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3.23

The Committee are unable to accept the plea of the Secretary, Department of Defence Production that as Ordnance Factories have not been set up for purely commercial purposes an elaborate system of monitoring man hour and machine hour utilisation in these factories is not needed. He pointed out that maintenance of records of manpower utilisation and machine hour utilisation would be "very enormous and costly". He felt that "indirect devices" being followed by ordnance factories are adequate for management control. The Committee feel that to enhance productivity of all the factors of production in the Ordnance Factories and control

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costs, it is necessary to apply modern management techniques in the factories which include a systematic study of man-hour and machine-hour utilisation. Ordnance Factories would therefore do well to evolve and introduce some such system at the earliest.

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3.26

The Committee are concerned to not the delay in completion of 2 out of 7 important projects costing more than Rs. 5 crores each taken up for completion during the last 5 years. The project for setting up of new project factory was delayed by six months while the Project for augmentation of Brass Melting and Strip Making capacity in Ordnance Factories has been delayed by about 10 months

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Delay in execution of projects push up the cost of project. Secretary Defence Production assured the Committee in evidence that Government was "very much concerned" over such time over-run in major projects and that a Member of the Ordnance Factory Board had been assigned specific responsibility to keep an eye on the on-going projects. He also indicated that it was proposed to induct into the Ordnance Factory Board an Engineer from MES to ensure better coordination and monitoring of projects. The Committee would urge that the proposed arrangement may be put through without any delay.

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4.9

It is accepted on all hands that transfer of stage and inter-stage inspection responsibility to the DGOF will bring about quality consciousness

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in the Ordnance Factories. Rajadhyaksha Committee was also in favour of it. The Committee cannot but deplore delay of 17 years in implementing this recommendation. Now that the decision has been taken in principle by Ministry of Defence for transfer of stage and inter-stage inspection responsibility to Ordnance Factories and in new factories (established after 1965) this responsibility has already been laid on the Factories, the Committee desire that modalities regarding adjustment of personnel between DGI and DGOF consequential to the transfer of this responsibility in respect of old Factories should now be thrashed out without any further delay.

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4.16

Though the Department has furnished to the Committee an elaborate note indicating the efforts made to rectify the defects in the equipment and ammunition, the fact remains that in certain cases the equipment and ammunition turned out by the Ordnance Factories was found defective. This by itself paints a dismal picture and calls for a more rigorous quality control by the Ordnance Factories and the DGI over the finished products of the Ordnance Factories.

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4.17

The Committee do not approve of the system of issue of ammunition on 'Red Card' without trial. The Committee desire that the practice of issue of lots under 'red card' should be discouraged and if issue of a lot without proof has to be resorted to under exceptional circumstances every effort should be made to have it proved at the earliest possible opportunity.

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5.3

The Committee are happy to note the assurance given by Secretary, Defence Production during evidence that "if there was overstaffing five years ago, there is no overstaffing in Ordnance Factories now". Not only that, according to him it has been decided that in future no new post would be created in Ordnance factories except for specific needs of new projects.

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5.8

The Committee are constrained to observe that medical facilities for the workers of the Ordnance Factories are far short of the requirements. Although there are 23 hospitals and 68 clinics the number of doctors available to man these hospitals/clinics is not adequate. Secretary, Defence Production attributed the shortage of doctors to two facts: First, the scales offered to Doctors by Ordnance Factories were not adequate to attract them; Secondly, doctors are reluctant to posting where factories are located. The Committee recommend that suitable incentives should be evolved to attract doctors.

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5.9

The Committee understand that even though Government orders stipulate that 50% of the Single Shift strength of the industrial workers in Factories may be provided with accommodation in the factory estate, this order has not been followed by Ordnance Factories. This has resulted in shortage of accommodation in some factory estates. Inadequate water supply is also reported. The Committee would like these matters to be examined and measures taken to provide accommodation atleast as per the norms laid down and adequate water supply in accordance with a time-bound programme.

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5.13

The Committee note that each Ordnance Factory has a Joint Consultative Machinery, while such a machinery may be useful to regulate the conditions of service of the workers satisfactorily, the Committee feel that a system should be worked out whereby the workers are associated with the endeavours of the management for improving Production and Productivity both in quantitative and qualitative terms. The Committee would await the steps proposed to be taken in this regard.

31.

5.16

The Committee are gratified to learn that industrial relations in Ordnance Factories have been by and large "harmonious". The Committee, however, note that two important demands of the Ordnance Factory employees are awaiting decision regarding which there was a token strike on 18. 12. 1980 resulting in loss of production to the tune of Rs. 181 lakhs during 1980. One of these demands related to Payment of Bonus to all Defence Employees.

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The Committee were told that almost all the workers in Ordnance Factories now get Bonus except about 1,000 teachers serving in School set up by Ordnance Factories and that the question of covering this section of employees was under consideration. The Committee urge an early decision in the matter.



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**Published under Rule 382 of the Rules of Procedure and Conduct of  
Business in Lok Sabha (Sixth Edition) and Printed by Gupta Printing Works  
472, Esplanade Road, Delhi-110006:**