

SIXTEENTH REPORT
PUBLIC ACCOUNTS COMMITTEE
(2005-2006)

(FOURTEENTH LOK SABHA)
PROCUREMENT AND UTILIZATION OF PLANT
AND EQUIPMENT IN DRDO
MINISTRY OF DEFENCE
(DEFENCE RESEARCH & DEVELOPMENT
ORGANISATION)



*Presented to Lok Sabha on 10-8-2005.
Laid in Rajya Sabha on 12-8-2005.*

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COMPOSITION OF PUBLIC ACCOUNTS COMMITTEE
(2005-2006)

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INTRODUCTION

I, the Chairman, Public Accounts Committee having been authorised by the Committee to submit the Report on their behalf, do present this 16th Report relating to "Procurement and Utilisation of Plant and Equipment in DRDO" on Paragraph 5.1 of the Report of Comptroller & Auditor General (C&AG) of India for the year ended 31 March 2003, (No. 6 of 2004), Union Government (Defence Services—Army & Ordnance Factories).

2. The Report of the C&AG of India for the year ended 31 March 2003 (No. 6 of 2004), Union Government (Defence Services—Army and Ordnance Factories) was laid on the Table of the House on 13 July 2004.

3. The Committee took the evidence of the representatives of the Ministry of Defence (Defence Research and Development Organisation) on the subject at their sitting held on 19 January, 2005. The Committee considered and finalised this Report at their sitting held on 15 July, 2005. Minutes of the sittings form Part II of the Report.

4. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in thick type in the body of the Report and have been produced in a consolidated form at the end of the Report.

5. The Committee would like to express their thanks to the officers of the Ministry of Defence (Defence Research and Development Organisation) for the cooperation extended by them in furnishing information and tendering evidence before the Committee.

6. The Committee place on record their appreciation of the assistance rendered to them in the matter by the Office of the Comptroller and Auditor General of India.

NEW DELHI;
20 July, 2005

29 Sravana, 1927 (Saka)

PROF. VIJAY KUMAR MALHOTRA,
Chairman,
Public Accounts Committee

REPORT

Introductory

The Defence Research and Development Organisation (DRDO) provides scientific and technical support to the Armed Forces through design and development of new and sophisticated equipment to meet operational requirements. A significant objective of DRDO is the establishment of capability for indigenous production of equipment which, hitherto, were imported i.e. self-reliance in defence requirements. The mandate of DRDO is accomplished through a network of 50 laboratories/establishments. The activities of DRDO are organised through specific projects of the following types:—

(a) Staff projects taken up at the instance of the Services against specific qualitative requirements.

(b) Competence building projects undertaken for building up expertise in specific disciplines.

Audit Paragraph

2. This Report is based on Paragraph 5.1 of the Report of Comptroller & Auditor General (C&AG) of India for the year ended 31 March 2003, (No. 6 of 2004), Union Government (Defence Services — Army & Ordnance Factories) relating to "Procurement and Utilisation of Plant and Equipment in DRDO". A review was conducted by Audit on the procurement and utilisation of imported and indigenous plant and equipment, procured during the period from 1997-98 to 2001-02. All cases of equipment costing Rs. 5 lakh and above were studied in Audit. Fifteen Research & Development (R&D) laboratories/establishments out of 50 were selected by Audit for review. The specific objectives of the Audit review were:—

(a) to examine whether the procurement of plant and equipment by DRDO establishments was justified;

(b) to analyse the process of procurement and see whether it was conducted effectively and efficiently with respect to cost and time; and

(c) to assess the efficiency of utilization of plant and equipment procured.

Budget and Expenditure

3. The following table depicts the budget allotment and actual expenditure of

DRDO during the period from 1997-98 to 2003-2004:—

(Rs. in crore)				
Year	Total Budget Allocation	Total expenditure	Budget allocation for purchase of Material* only	Actual expenditure on purchase of material* only
1997-98	1683.00	1958.22	486.83	561.81
1998-99	2476.80	2299.61	1000.32	994.17
1999-00	2780.00	2833.47	1190.00	1254.04
2000-01	3101.75	3355.81	1304.24	1548.06
2001-02	3518.34	3127.97	1607.33	1395.53
2002-03	3-79.49	3006.28	1291.63	1220.73
2003-04	3457.97	3440.66	1457.62	1451.53

(*) Material includes stores, plant and equipment.

4. Budgetary allocations and actual expenditure on material in respect of the fifteen Laboratories and establishments selected for Audit review for the five years from 1997-98 to 2001-02 were as under:—

(Rs. in crore)				
Sl. No.	Name of Laboratories/Establishments	Total budget allotment	Budget allotment for purchase of material	Expenditure on purchase of material
1	2	3	4	5
1.	Defence Research and Development Laboratory, Hyderabad (DRDL)	200.95	70.22	70.04
2.	Search Centre Imarat, Hyderabad (RCI)	145.46	84.55	84.32
3.	High Energy Material Research Laboratory, Pune (HEMRL)	123.01	34.75	20.52
4.	Armament Research and Development Establishment, Pune (ARDE)	174.18	84.82	76.43
5.	Terminal Ballistic Research Laboratory, Chandigarh (TBRL)	82.02	38.40	38.23
6.	Combat Vehicle Research and Development Establishment, Avadi (CVRDE)	171.65	67.51	65.18
7.	Defence Electronics and Research Laboratory, Hyderabad (DLRL)	318.02	199.35	188.78
8.	Defence Metallurgical Research Laboratory, Hyderabad (DMRL)	146.00	57.43	56.63
9.	Research and Development Establishment (Engineers), Pune [RDE(E)]	96.73	44.20	42.53

1	2	3	4	5
10.	Vehicle Research Development Establishment, Ahmednagar (VRDE)	81.21	34.63	34.22
11.	Solid State Physics Laboratory, Delhi (SSPL)	101.94	47.75	44.41
12.	Institute of Nuclear Medicine and Allied Sciences, Delhi (INMAS)	40.70	19.79	19.20
13.	Laser Science and Technology Center, Delhi (LASTEC)	103.93	70.03	60.49
14.	Integrated Test Range, Balasore (ITR)	120.62	81.01	79.49
15.	Proof and Experimental Establishment, Balasore (PXE)	71.85	17.48	19.46
Total		1978.27	951.92	898.93

It would be seen from the above Table that DRDO establishments spent 45.44 per cent of their budget on purchase of stores, plant and equipment.

Procurement Planning

5. According to the Audit Paragraph, 8 equipment costing Rs. 1.75 crore required for specific projects undertaken by 5 laboratories/establishments (ARDE, DMRL, VRDE, HEMRL and SSPL) were received either after the closure of the Project or at the fag end of the Project. The details are illustrated in the following Table:—

Sl. No.	Name of Lab/Estt.	Equipment	Cost	Closure of Project	Equipment installed on	Remarks
1.	ARDE	Piezo d 33, dhgh Measuring system	Rs 14.65 lakh	December 2001	December 2001	-
2.	DMRL	High temperature Air Furnace	Rs 12 lakh	December 1999	August 1999	-
3.	DMRL	Electric Shell Pre-heating Furnace	Rs 10 lakh	December 2002	June 2002	PDC(*) Extended to 2004. Not used up to February 2003
4.	DMRL	Plate leveling Machine	Rs 9.33 lakh	November 2002	July 2002	Used only for 7-1/2 hours since its installation.
5.	VRDE	Data Acquisition Products	Rs 6.80 lakh	December 1998	December 1999	-
6.	HEMRL	HOT compaction Machine	Rs 15.50 lakh	September 2002	September 2002	Used only for 18-1/2 hours
7.	DMRL	Optical Microscope	Rs. 6.04 lakh	January 2000	June 1999	Used only for 7 hours 15 minutes
8.	SSPL	Plasma Enhanced Chemical Vapour Deposition System	Rs. 1.11 crore	September 2002	August 2002	Used for only 1 month in the Project.

(*) PDC—Probable date of completion

6. The Committee enquired the reasons for delay in receipt/installation of these 8 equipment. The Ministry of Defence (Department of Defence Research & Development) in the written information furnished to the Committee stated that the general reasons for delay in receipt/installation of these 8 equipment were re-floating of tenders, technical clarifications, imposed embargo for exporting equipments to DRDO etc.

7. To a query as to how the projects were completed without these equipment, the Ministry stated that all the 8 equipment are either measuring instruments or furnaces, which are of general nature and are being utilized for ongoing programmes in the Laboratories. When asked further whether the Projects were delayed because of the delay in receipt of equipment, the Ministry stated that none of the Projects was delayed due to any delay in receipt of equipment.

8. Considering that most of the equipment were installed towards the end of the Project and could not be substantially used for the specific purpose, the Committee desired to know the prospects of utilization of the equipment. According to the Ministry, technical activities do not stop in the Laboratories with the closure of a particular project. The equipment have been used in subsequent projects. The Ministry have also furnished details of the Projects where these equipment were subsequently put to use.

9. The Committee enquired as to what specific steps have been taken to remove deficiencies in the system of procurement planning and procurement action with a view to ensuring that equipment projected for particular project is received in time and utilized for the specific purpose. The Ministry in their written information submitted that instructions have been issued in this regard to all Laboratories (Appendix A & B). According to them, action has also been taken for amendment in the Purchase Management Procedure so that yearly report for any deficiency shall be reported to Headquarter with reasons thereof. The Committee have also been informed that development of Integrated Material Management Software (IMMS) by the Laboratories of DRDO will help in considerably reducing time for procurement. While furnishing the status of implementation of IMMS, the Ministry stated that the same is likely to be completed by August, 2005.

Procurement Process

A. Failure to adopt open tendering

10. According to the Audit Paragraph, the Purchase Management Procedure of DRDO, issued in July 2000, stipulated that in general, open/global tenders should be invited to generate as much competition as possible. However, if warranted by the situation, other modes of tendering *viz.* limited, single and proprietary, could also be used in accordance with the prescribed procedure. Audit observed that out of 30 cases in five laboratories involving purchase of equipment costing Rs. 10.17 crore, there were only four open tenders. In 17 cases, purchases were made on the grounds of urgency of requirement. Out of 5 cases processed as urgent in the years 2001 and 2002 *i.e.* after issue of Purchase Management Procedure by DRDO, only two orders were placed within 12 months and three were placed after 13 to 21 months of raising of

demands. In 12 other cases considered urgent, for which orders were placed up to the year 2000, the time gap between the raising of demand and actual ordering ranged from 5 to 11 months in 8 cases and over 12 months in four cases.

11. The Committee desired to know the system in vogue for procurement of equipment through different modes of tendering. In this connection, the Ministry stated as follow:—

"Open tendering is followed for item where the limited tendering, irrespective of its estimated value, has not resulted in creation of expected competition and best offer. Global tendering is resorted to, for item of foreign origin, where competition from more than one same different countries is envisaged. Limited tendering is chosen for the cases whose source of supply are definitely known and are limited, for reasons of security and in Public interest, when requirement of stores is urgent and the desired delivery schedule cannot be met if open tenders are invited. Lab Directors may decide any mode of tendering within their delegated powers to be adopted for each Purchase based on the basis of technical complexity of the item and known source of supply etc. Beyond Director's power, cases of item other than projects are being sent to HQ DRDO for Equipment Procurement Committee (EPC) approval."

12. When limited tender was resorted to on grounds of urgency, the Committee questioned the procurement action of the concerned Laboratories that let to delays ranging even up to 21 months in some cases for placing the supply orders after raising of demands. The Ministry, in a written note, explained the reasons for delay as follows:—

"Procurement in DRDO is usually in the context of research & development. Items are usually not available off-the-shelf. Therefore the process of finalizing technical specifications needs extensive interactions with the vendors. This can sometimes take more time than anticipated. Limited Tendering is chosen not only for urgency but for security reasons too and also when sources of supply are definitely known. Some of the limited tenders were from DRDL, Hyderabad, that is in the entity list of embargo. Also the cases where internal lead-time taken by Lab is more than one year, such cases are to be approved again by the Equipment Procurement Committee (EPC) at HQrs in which Integrated Finance is also a member. HQrs. Committee examines such cases critically."

13. To a specific query by the Committee during evidence as to how the Ministry justify not adopting open tenders on grounds of urgency when there were substantial delays not only in raising of demands but also actual placement of order, the Secretary, DRDO submitted:—

"I agree that there could have been lapses on our part or on the part of our scientists in resorting to limited tenders. Some of the things I have gone through and found that procedurally they are not correct. There is no need to say urgency. Urgency would have been in one or two cases but not in all the cases. We do resort to it, if there is a confidence that there is somebody who has tacit knowledge of that generic thing which can be added to in building such equipment. By that we can have some means of ascertaining and saying that you resort to

limited tenders. Today, we have, in the DRDO, a Procurement Procedure, 2003, which has been modified as Procurement Procedure, 2004, wherein we have very strongly advocated for open tenders. Wherever the machine or capital equipment is of a generic nature, and where there is a valid reason, we look for limited tenders. There are procedures, how these limited tenders should get the acceptance of the competent authority through the Equipment Procurement Committee and through other Technical Committees. The Committee sit in judgement before clearing this as a limited tender or as a proprietary article. So, I can say that processes of procurement have since been legislated, and have a little more clarity. In future, scientists can follow this. So, to that extent, this is a lapse. I admit that."

14. The Committee enquired the time frame stipulated for placement of orders after demands are raised by the User Laboratories. The Ministry stated that no specific time frame had been fixed for placement of supply orders.

15. The Committee desired to know the mechanism in place to monitor the cases of procurement on grounds of urgency. The Ministry stated that User group in the Laboratory and Material Management group monitor the cases of procurement on grounds of urgency. According to them, Material management software to be implemented in all DRDO Laboratories will further improve the monitoring system.

Long Internal Lead Time

16. According to the Audit paragraph, the Purchase Management Procedure prescribed a normal time limit of 12 months for different activities involved in purchase, i.e. from the date of demand from the user department to the date of placement of supply order. A test check of 50 cases in 4 laboratories by Audit revealed that in 22 cases, supply orders were placed after 12 months from the date of demand from the user.

17. On being asked to explain the reasons for the delay in placement of orders in respect of the cases pointed out by Audit, where the prescribed time limit was not adhered to, the Ministry in a note submitted that as these equipment were to be specially developed to cater to DRDO requirement it took time to reach to desired specifications after series of discussions with vendors.

18. When asked by the Committee about the steps taken subsequently to obviate recurrence of delay in procurement action by the concerned authorities in different Laboratories/establishments, the Ministry, in a note furnished subsequently have stated that Integrated Management Software & DRONA Transaction System (Intra Net connecting all DRDO Labs. & Headquarters) are expected to reduce the time for placement of orders.

Long External Lead Time

19. Audit review has brought out that the suppliers failed to adhere to the time schedule for delivery of equipment. According to Audit, in 65 cases, items were received after delays upto one year. In 9 cases, items were received with delays of more than one year and ranging upto three years. One case was stated to be outstanding beyond five

years. The total amount to be recovered by way of liquidated damages in 36 cases was Rs. 67.58 lakh. However, liquidated damages amounting to Rs. 0.46 lakh was recovered only in one case. In the remaining 35 cases, an amount of Rs. 67.12 lakh leviable was waived by the Directors of the laboratories/establishments.

20. When enquired about the basis on which the Directors of the concerned Laboratories/establishments took a decision to waive liquidated damage to the tune of Rs. 67.12 lakh, the Ministry, in a note, stated that a decision to waive Liquidated damages was taken as developmental delays were not attributable to suppliers due to changes in drawings/specifications.

Delay in installation of equipment

21. Audit Paragraph has brought out 6 cases involving abnormal delay in installation of equipment costing Rs. 13.78 crore, after receipt of those from the suppliers. According to Audit, the suppliers were responsible for the delay. Further, the time-frame for installation of the equipment by the suppliers had not been laid down in the contracts. Other reasons for non-installation/commissioning of the equipment were: delay in calibration, receipt of equipment in damaged condition, delay in repair or replacement of the damaged parts by the supplier and delay in completion of civil works before the receipt of the equipment. Four of these cases are dealt with in detail in the succeeding paragraphs.

A. Defence Metallurgical Research Laboratory (DMRL)

22. According to the Audit Paragraph, Electric Furnace Chamber costing Rs. 13.70 lakh, which was received in January 2002 by DMR, was not installed till March 2003. The Committee desired to know whether the furnace was defective and if so, how was it cleared in the pre-despatch inspection at the firm's premises. The Ministry, in a written note, explained as follows:—

"The electrical furnace was not defective. Due to severe shortage of power supply at their premises at Kolkata, the full performance of the equipment could not be tested for attaining of the specified temperature. Since the furnace was designed to operate at a maximum power of 120 KW as per the specification and as the vendor offered to demonstrate full performance at DMRL, the same was agreed by the inspection team and the clearance for dispatch was given."

23. In the vetting comments Audit stated that the electric furnace chamber was procured from a firm, which reportedly did not have the facilities to test it. The firm was paid 65% payment without demonstrating its performance which was in violation of the terms of the contract. The furnace after installation in DMRL failed to attain the desired temperature of 1200°C, causing delay in its; commissioning.

24. In response to the Audit observation, the Ministry in a note have explained that the equipment could not be tested for its full capability because of severe power problems in Das Nagar, Post Bultikuri, Howrah where the works of M/s WJ Alcock Company Pvt. Ltd, was located. This was stated to be confirmed by the DMRL representatives, who went to the site for inspection. The inspection at the firm's premises was cleared only after checking all the functional aspects as per specifications. The

vendor demonstrated the full capability of the furnace on 15.5.2003. According to the Ministry, the furnace has been working satisfactorily, since its commissioning, reaching the maximum temperature of 1200° C in the specified time.

B. Combat Vehicle Research and Development Establishment (CVRDE)

25. An equipment namely 200 KW Dynamometer costing Rs. 36.75 lakh, which was received in June 1989 by CVRDE, was installed in August 2002 i.e. after a delay of 13 years. Explaining the reasons for delay in installation of the Dynamometer, the Ministry have stated that the equipment was received in June 1989 in a damaged condition. The item was sent to the supplier during February/March 1991 after protracted negotiation with the firm and DGS&D for repairing by the firm. The equipment was received back after rectification during January 1998. The Indian agent then took up the installation work. During the installation in September 2000, it was found that one item named Switch Mode Power Supply (SMPS) was defected and the replacement was received during November 2001. According to the Ministry, in the meantime the Indian agent insisted for the payment of the agency commission, which was not released. The agency of the Indian agent was also terminated. The expertise available with the establishment was used to complete the installation.

26. The Committee enquired whether pre-despatch inspection clause was there in the contract. The Ministry, in a note furnished subsequently to the Committee have stated that the procurement of equipment was done through DGS&D contract on Free on Board (FOB) basis and in the said contract there is no pre-despatch inspection clause. However, the supplier was responsible for the completeness of the equipment and efficient working of the same at the site and the equipment was covered under warranty/guarantee clause.

27. When asked about the relevant clause in this contract to deal with stores received in damaged condition, the Ministry have explained in a note that the delivery was FOB. As such, the supplier was not responsible for transit insurance. The contract in fact, stipulated that DRDO could, if it so desired, insure the equipment against damage in transit. The practice in DRDO is that any goods or equipment whose value is less than Rs. 2.5 crore is not insured against transit damages. The cost of this equipment was Rs. 36 lakhs, and hence transit insurance was not taken.

28. In a letter (Appendix 'C') written to Chairman, PAC subsequent to oral evidence on the subject. Scientific Adviser to Raksha Mantri and Secretary. DRDO assured the Committee that the Department would ensure that unjustifiable delays that took place in case of Dynamometer do not recur. It was further stated that the purchase management manual was being amended to provide for annual reports from all Laboratories in respect of cases in which the delay in delivery, installation and utilization is greater than one year.

C. Defence Research and Development Laboratory (DRDL)

29. In case of DRDL, an equipment namely 3D CNC Co-ordinate measuring Machine costing Rs. 4.63 crore, which was received in September 2002, was not installed till March, 2003. Explaining the reasons for delay and status of its installation, the

Ministry have submitted in a note, as follows:—

"The 3D Co-ordinate Measuring Machine was delivered in September 2002. It was found after receipt of the consignment at DRDL that 10 packages out of 17 packages of the consignment were in damaged condition possibly due to improper handling during transit. Due to the partial damage of some components, the machine could not be installed after delivery of the machine. The survey was conducted by surveyor of Insurance Company. Based on the survey report, the specialist Engineer from the original manufacturers (CMA France) was invited to assess the extent of damage and possible course of action for installation. The specialist engineer during his visit in November 2002 recommended that some of the components are to be replaced and then only the machine can be installed based upon the specialist engineer's recommendation for the list of damaged components, a supply order was placed on CMA France during March 2003 for supply of the items. The replacement components arrived at DRDL in September 2003. The French team of installation engineers commenced the installation during October 2003 and the installation of the machine was completed successfully during January, 2004. The machine has been working satisfactorily from then onwards."

30. The Committee enquired about the total cost of the replacement equipment obtained from the Original Equipment Manufacturer on account of damage in transit. According to the Ministry, the total cost incurred in this regard was Euro 88875. On being asked further whether the expenditure was borne by the supplier or the Laboratory concerned, the Ministry in a post-evidence note stated that DRDL met the expenditure. According to the Ministry after completion of installation, final insurance claim was made on 18 February, 2004 for a similar amount. The claim has been made to United India Insurance Company at New Delhi. DRDL was in correspondence with the Insurance Company and according to the Ministry, the claim is likely to be settled soon.

Under-utilisation of Equipment

31. According to Audit Paragraph, four equipment namely Flip Chip Alignor Bonder (Machine), Frequency Response Analyser, Tracking Doppler Radar System DR-6700 and Voltas Omega Crane (25 Tonne) costing Rs. 5.60 crore were under-utilised or remained unutilized for two to four years due to delay in repair and upgradation in respect of SSPL, RCI, PXE and CVRDE.

32. The Committee enquired the reasons for the long delay in repair of these equipment. The Ministry in a note stated that repair of direct import equipment take time as the firms are not ready to give Bank Guarantee for equipment and it is risky to send the equipment for repair due to Commerce Control Laws.

33. The Committee desired to know the system in place for monitoring the performance of equipment installed in the DRDO laboratories. According to the Ministry, the present system of monitoring the performance of equipment is to enter into Annual Maintenance Contract (AMC) with the firm or his representative. Provision or spares for critical component are stated to be kept in stock.

34. To a query as to how equipment are pending for such a long time for repair/upgradation despite existence of AMC with the firm and provision of spares for critical

components, the Ministry in a post-evidence note explained:—

"Annual Maintenance Contracts are entered for equipment available within the country. For direct import items, AMC is incurred if the supplier has a service center in India. Warranty clauses are normally mentioned in supply order and at times the complete equipment is required to be sent to the OEM premises for repair when such repairs are not possible in India."

35. When asked about availability of expertise with the DRDO Labs. to carry out repair of these equipment, the Ministry have stated that no expertise is available for repair of equipments under direct import.

36. The Committee specifically desired to know the extent to which the performance of the concerned Laboratories was affected due to long delay in repair of these equipment. The Ministry, in a note have submitted that Lab performance was affected to some extent due to delay in repair of the equipment. However, allotment methods were being used to overcome the problem.

37. In response to vetting comments by Audit regarding corrective action taken to obviate long delay in repair of machine, the Ministry in a note have *inter-alia* stated that DRDO HQrs. have already taken corrective action for plugging loopholes in the area of stores management with issue of Store Management Guidelines - 2004 (SMG-2004) in April 2004. The SMG-2004 covers the entire gamut of store management from receipt and inspection, taking on ledger charge, inventory control, warehousing transport and despatch, stock taking and disposal of obsolete stores.

38. In a related query regarding utilization of equipment during evidence, Secretary, DRDO explained as follows:—

"As far as under utilization of specific equipment is concerned, 'yes', that has occurred. It does not happen in every equipment but it does happen in a few equipment. It is mainly because either the design content of what we want to do is changed or that particular machines are usable only for a specific purpose and that purpose has ceased to exist. So, there is a problem of that kind. Our job is so unique that sometimes just for even one item/operation we need to buy that particular piece of equipment. But today, with improved infrastructure in the industrial environment, we are trying to have a mechanism to see, how the jobs can be outsourced. But then outsourcing also is not very easy. It again calls for some specialized activity within that generic band. But whenever there is a minimum volume consistent with usage of such equipment and the facility in industry is available, we are trying to outsource. In this way we are trying to take care of the investment towards equipment that is likely to be used on a continuous basis or on a relevant percentage basis."

Equipment lying unutilised

39. According to the Audit Paragraph, four equipment namely Cryogenic Gas Charging Plant, Weighing and sorting machine, Automatic Weather and Picture Transmission Systems and Plessey Radar System valued at Rs. 3.21 crore were lying unused/unserviceable/surplus in two Laboratories *viz.* DMRL and ITR. Details of some of these equipment are narrated in the following paragraphs:—

A. Cryogenic Gas Charging Plant

40. According to Audit, DMRL in April 1992 purchased a Cryogenic Gas Charging Plant at a cost of Rs 25 lakh for conversion of liquid argon into gas. The cryogenic

plant could not generate the required purity of argon without a complementary purification plant expected to cost Rs 60 lakh, even though the equipment procured was custom-designed. The equipment was lying unutilized with DMRL as of February 2003 and was awaiting disposal having been declared surplus.

41. The Committee enquired about the reasons for non-performance of the Plant. The Committee also desired to know whether the contract with the supplier incorporated a clause relating to performance guarantee and, if so, whether the same was invoked. The Ministry, in a note have submitted as follows:—

"The Plant was accepted after conducting performance test at DMRL by boosting. Low Pressure Argon gas due to shortage of required purity liquid Argon. Since the supplier performed his obligation, no action was taken except imposing LD for delay in supply of equipment. No Bank Guarantee was taken from the firm being a Govt. undertaking."

42. On being asked whether the contract provided for pre-despatch inspection of the plant, it was stated by the Ministry that the pre-despatch inspection was carried out by the vendor at his works in presence of DMRL Scientists as per the contract and the firm successfully demonstrated the filing of empty cylinders to the rated pressure using liquid nitrogen.

43. In their vetting comment, Audit pointed out that if, pre-despatched inspection was carried out in firm's premises and performance test was conducted at DMRL, how and why the plant failed to generate the required purity argon, the Ministry in a note have explained as under:—

"Pre-despatch inspection was carried out at firm's premises in the presence of DMRL Scientists. The firm successfully demonstrated the filing of empty cylinders to rated pressure, using liquid nitrogen in lieu of liquid argon (which was not available). This is an acceptable norm due to similarity in the properties of both the gases. Performance tests were also carried out at DMRL for boosting low-pressure argon gas to high pressure, mainly due to non-availability of liquid argon of the required purity. It may please be noted that plant can only generate argon gas from liquid argon to rated pressures and only the purity of liquid argon governs the purity of argon gas."

44. Explaining the background for the decision to dispose of the plant, the Ministry have stated that since the plant could not be utilized for several years due to non-availability of high purity liquid argon and since high purity argon gas in cylinders was abundantly available locally, the equipment was declared surplus and disposal action was initiated.

45. In the vetting comment, Audit mentioned that if high purity argon gas in cylinders was abundantly available as stated by the Ministry, why this plant was procured, the position was explained by the Ministry in a note as under:—

"Due to severe shortage of high purity argon gas at the time of procurement of the equipment and following an assurance from M/s Bhoruka Gas suppliers that they would supply liquid argon in large containers, DMRL procured the cryogenic

gas charging stations in 1992 from M/s IBP & Co. Ltd, Nasik. However, M/s. Bhoruka could not meet the requirements of liquid argon. Hence this equipment could not be used for the purpose for which it was intended. However, this equipment is being used for boosting up the pressure of left over argon gas in cylinders to high pressures. In the last five years there has been a considerable improvement in the availability of High purity Argon gas. This was brought to the notice of Audit and it was suggested that DMRL should explore the possibility of disposing this equipment. IBP & CO Ltd., Nasik was approached to buy the equipment back. IBP expressed its inability on the ground that they had wound up this department. Keeping this in view, the item was declared as surplus and action is being taken for disposal as per normal procedure."

46. Giving the status of disposal of this plant, the Ministry stated that tendering action had taken place thrice for the purpose. The offer received were stated to be much below the RGP. According to the Ministry, a Board of officer was being convened to refix the Reserved Guide Price (RGP) and tendering action will follow soon.

B. Automatic Weather and Picture Transmission System

47. According to Audit paragraph, ITR procured two systems *viz.* Automatic Weather System and Automatic Picture Transmission System at a cost of Rs 34.16 lakh (90 per cent payment) from a private firm in June, 1988 and February, 1989 respectively. The firm failed to instal the systems and the equipment remained idle. ITR filed two cases with the National Consumer Forum, New Delhi, in January 1995 against the supplier. The Forum, in its final verdict given on 22 October 2002 directed the supplier to supply new systems of latest specification within six months from the date of issue of the order. The firm had not supplied the new equipment till November 2003.

48. The Committee desired the Ministry to furnish a note indicating chronological sequence of events of the case including the latest position about receipt of equipment from the defaulter firm. The sequence of events of the case as furnished by the Ministry read as follows:

- "The firm was ordered by the National Consumer Disputes Redressal Commission, New Delhi 22nd October 2002 to replace the defective equipment with a new latest state-of art equipment within 6 months from the date of order i.e. by 30th April, 2003.
- The firm could not supply the equipment as per the order of the National Consumer Disputes Redressal Commission, New Delhi. Hence, the firm approached the Honourable Commission for extension of the period to execute the order. As per the request of the firm, this due date was extended by the Hon'ble Commission up to 30th October 2003.
- On 8th April 2003 the firm invited ITR rep. for finalisation of ATP documents and asked for Customs Duty Exemption Certificate.
- Accordingly the ATP was finalized in August 2003 and Customs Duty Exemption Certificates were issued to the firm on 12th September 2003.
- As the firm failed to comply with the order of the Honourable Commission within the extended time period the firm was reminded by this establishment

on 22nd December 2003 about the expiry of the extension period and enquired about the status of delivery.

- In response to our enquiry the firm intimated this establishment that they had procured the equipment and the equipment were being tested by the firm before despatch. At the same time the firm requested this establishment to depute ITR Representative to Delhi for pre-dispatch inspection in February 2004.
- But the firm actually sent their formal request for final inspection of the Consignment on 2nd April 2004 *vide* their letter 520-ESD-ITR/2 dated 2nd April, 2004.
- Accordingly, our representative visited the firm during 20-21 April, 2004 and found the equipment produced suitable for Government use and acceptable. After the inspection as per ATP the firm promised to dispatch the equipment by 3rd-4th week of May 2004.
- ITR sent formal letter of acceptance of the equipment *vide* our letter No. ITR/IMMD/ Anika/Court Case/2004/Met dated 6th May 2004 and requested the firm to dispatch the equipment as promised and get them installed on site.
- Again the firm failed to supply the equipment as promised. Hence, this establishment sent a reminder on 4 June 2004 to expedite the supply of equipment. In response to this reminder, the firm informed ITR on 19th June 2004 that the equipment would be despatched in the first week of July 2004.
- Again the firm failed to comply with their commitment. Hence, reminders were sent to the firm on 16th July 2004 & 30 July 2004 ITR and enquired about the status of dispatch.
- On 31st July 2004 the firm intimated ITR that due to flood in Bihar, they were not able to supply but promised to supply at the earliest. Again the firm informed ITR, Chandipur on 2nd September 2004 that they would supply the stores within 10-15 days *i.e.* by 17th September 2004 but yet again the firm failed to deliver the item."

49. The Committee have been informed that legal action was initiated by the Establishment against the firm to get the equipment at the earliest. Enumerating the action taken in this regard, the Ministry stated in a post-evidence note as follows:—

"The Establishment (ITR) has served legal notices to the firm after consultation with Government Advocate Shri S.S. Sabharwal on 27 January 2005. The firm *vide* their letter dated 11th February, 2005 has confirmed that the items will be delivered by 15 February, 2005. The firm despatched few items through courier which were received at ITR on 15 February, 2005. The firm informed that the Company representative will bring rest of the items personally and also told that the equipment will be installed by 1st March, 2005. Till date, firm has not reported for installation. Again they have been requested to install the system latest by 7th March, 2005, failing which legal proceeding will be initiated."

50. During evidence, the Committee desired the Ministry to ensure that defaulting firms should not be considered for procurement of equipment in future. In the backdrop of the case involving the procurement of Automatic weather and picture transmission systems, the Committee also desired to be assured that the Ministry will not deal with any firm in future against whom they had gone either to the Court or Consumer Forum. In a letter written to the Chairman, the Secretary DRDO *inter-alia* stated:

"At present the DRDO notified procurement procedure provides for de-registration of firms whose performance is found to be unsatisfactory. Such firms do not receive invitations to bid in respect of limited tenders. Even where such firms send bids against open tenders, they are disqualified by the technical evaluation committees. As regards blacklisting, DRDO presently follows the Government of India. Directorate General of Supply & Disposal procedure. Within the next three months, DRDO proposes to put up the list of de-registered firms on its public website. DRDO does not and will not deal with any firm that has failed to deliver and against whom DRDO has filed a case in any court of law including consumer forums."

Delay in disposal of surplus/obsolete equipments

51. According to Audit, there were delays in disposal of surplus equipment at CVRDE. Two machines costing Rs. 13.13 lakh became obsolete/beyond economical repair in 1990/1992 but were not disposed till January 2003. At DRDL, nine cases of delay in disposal of unwanted equipment each with book value of Rs. 5 lakh and above, were noticed. The laboratory took more than 3 to 8 years for their disposal. At DMRL, there were 8 such equipment costing Rs 2.5 crore. The Laboratory did not dispose off 5 equipment till March 2003 with book value of Rs. 2.03 crore which were declared surplus during the period 1998-2001.

52. The Committee enquired the reasons for the long delay of 3 to 12 years in disposing surplus equipment by the DRDO Laboratories. According to the Ministry, since the quoted price of the equipment were much lower than the Reserved Guiding Price (RGP) fixed by the Committee that included CD/(R&D) and Headquarters representative, there was delay in disposal leading to repeated tendering.

53. The Committee have been informed that there is a system of monitoring utilization and disposal of machines. The Committee then enquired as to how such long delays occurred in disposal of surplus/obsolete equipment despite existence of a monitoring system. The Ministry, in a note have clarified that if the highest bid is less than 50% of the RGP fixed, there is no option except to re-float after re-fixing the RGP as per the present rules.

54. As regards prescribed procedure for disposal of surplus/obsolete equipment in DRDO Laboratories/Establishments, the Committee have been informed that a revised procedure was issued by the Ministry of Defence in March 2003, which superseded the earlier order issued in this regard in October 1985.

55. In regard to delay in disposal of machines/equipments, the Secretary, DRDO during evidence submitted as follows:—

"There is a Committee that gives as assessed value of the equipment, but the point is that because of the very nature of these equipment unless there is an

identical user, it is not perceived as a useful equipment by the so-called prospective purchaser of the second hand equipment. Therefore, we are not getting any remunerative acceptance of the kind of price that we are asking for these equipment. The only dispensation that I would request the Government is that we should be allowed to dispose of the equipment at whatever price the purchasers agree upon. I am saying this because these are specific equipment and there has to be another maker to make the same shell core type of thing and the purchaser has to find it useful to perceive a value for that equipment. Otherwise, it is more like to scrap for them, and if it is to be put to some other use, then they do not agree to our assessed value of the equipment. This is the problem, which we have faced in respect of those small equipment being put up for auction or sale."

56. He further stated:—

"We are trying to work out a scheme where technical institutions engineering colleges, and IIT institutions can take some of these equipment to educate the students. We are planning to give it to those institutions, and we are already working out a policy for doing it."

57. In view of abnormal delays as pointed out by Audit in the aforesaid cases in disposal of equipment, the Committee enquired whether DRDO proposed any further revision in the extant procedure to ensure early disposal of item. The Ministry in a note have stated that certain amendments have been made in the Procedure of Purchase Management issued in 2003 with effect from 24 February, 2005 and also letters have been issued simultaneously to Directors of all Labs/Establishments for compliance of corrective action as a follow-up to Audit observation. Copies of amendments made in Purchase Management-2003 and Letters to Directors (all Labs/ Establishments) are reproduced at Appendices A & B.

58. In his letter written to the Chairman subsequent to evidence, the Secretary DRDO *inter-alia* stated:—

" For disposal of old, unserviceable and surplus machines, DRDO has notified a procedure in 1993. This procedure is considered to be adequate. A drive is proposed to be launched with immediate effect to implement the procedure and ensure the minimization of stores of this nature."

Absence of an effective computer based Information Management System (IMS)

59. According to the Audit Paragraph, the material management policy of DRDO envisages implementation of a Computer based information system to ensure most effective research and development. DRDO intimated Audit in December 2003 that the development of integrated material management system-software was in progress. When enquired about the status of development of integrated material management system software in DRDO, the Ministry in a note have stated that supply order for implementation of Integrated Material Management Software and required hardware has been placed. Installation of Hardware will commence from Middle of March 2005. According to them, implementation plan is likely to be completed by August, 2005.

Observations/Recommendations

60. The Defence Research and Development Organization (DRDO) provides scientific and technical support to the Armed Forces through design and development of new and sophisticated equipment to meet operational requirements. A significant objective of DRDO is the establishment of capability for indigenous production of equipment with a view to attaining self-reliance in defence requirements. The mandate of DRDO is accomplished through a network of 50 laboratories/establishments whose activities are organized through specific projects. The Audit paragraph in question seeks a review of procurement and utilization of imported and indigenous plant and equipment by 15 Research & Development (R&D) laboratories/establishments procured during the period from 1997-98 to 2001-02. The Committee note that DRDO establishments spent more than 45 per cent of their budget on purchase of stores, plant and equipment. The facts brought out in the Audit paragraph and subsequent examination by the Committee reveal that procurement planning of material by DRDO and its utilization leave a lot to be desired.

61. The Committee note that eight equipment costing Rs. 1.75 crore required for specific projects undertaken by five laboratories/establishments (ARDE, DMRL, VRDE, HEMRL and SSPL) were received either after the closure of the Project or at the fag end of the Project. The Ministry have attributed the reasons for delay in receipt/installation of these equipments to re-floating of tenders, seeking technical clarifications, embargo imposed for exporting equipment to DRDO etc. According to them, none of the Projects was delayed due to delay in receipt of these equipment. As regards utilization of the equipment, which could not be substantially used for the specific purpose, the Committee have been informed that these were used in subsequent projects. In order to ensure timely procurement of requisite equipments and their effective utilisation for the intended purpose, the Ministry have stated that Purchase Management Procedure was suitably amended and instructions have accordingly been issued to all concerned laboratories/establishments for strict compliance of the amended Procedure including regular reporting by them to the DRDO Headquarters. The Ministry further added that with the commissioning of Integrated Material Management Software by the laboratories of DRDO, expectedly by August 2005, lead time for procurement of equipment will be curtailed substantially thereby helping in their timely acquisition. The Committee however, regret to observe that DRDO was largely responsible for delay in receipt/installation of the equipment in question. What has caused concern to the Committee is the fact that equipment could not be put to use in the specific projects as envisaged in the procurement planning. It is altogether a different proposition that those equipments were utilized in subsequent projects. The Committee take note of the steps taken by the Ministry to plug deficiencies in the system of procurement planning and desire that an institutional mechanism should be put in place to monitor implementation of revised procedure by field formations with a view to strengthening procurement system.

62. The Committee find that besides deficient procurement planning, the procurement process in DRDO is also afflicted by serious procedural shortcomings. The Purchase Management Procedure of DRDO, issued in July 2000, stipulated that open/global tenders should be invited to generate as much competition as possible.

However, to the contrary, 17 out of 30 cases in respect of five laboratories, limited tenders were resorted to on grounds of urgency for effecting purchases. What is further disturbing to note is the fact that out of 5 cases processed as urgent, three orders were placed after 13 to 21 months of raising of demands. In 12 other cases, the time gap between the raising of demand and actual ordering ranged from 5 to 11 months in 8 cases and over 12 months in four cases. In the opinion of the Committee, the grounds of urgency to justify limited tendering thus become questionable in such cases. According to the Ministry, limited tendering is chosen for cases whose source of supply are definitely known and are limited, for reasons of security and public interest, when requirement of stores is urgent and the desired delivery schedule can not be met if open tenders are invited. The Committee are aware of the unique nature of some of the stores required in the context of research & development including the aspect of security and public interest and render full credence to their procurement through the mode of limited tendering. But the criticality of the matter lies in the fact that the desired delivery schedule could not be adhered to in almost all the reviewed cases, for which general procedure of open tendering was waived. The Secretary, DRDO was however, very candid in admitting that resorting to limited tender on grounds of urgency in such a large number of cases was not procedurally justified and could lead to some lapses. The Committee have been informed that with the amendment effected in the procurement procedure in DRDO, the processes of procurement have been specified with better clarity that would help reduce margin of error on the part of operating units. While appreciating the efforts made by DRDO in right earnest, the Committee desire that in future cases of procurement under urgent circumstances should be critically analysed and closely monitored so as to ensure that delegated power is not misused and objective of procurement is fully achieved. The Committee would like to be furnished a status report about the procurement made under limited tendering consequent to issuance of Procurement Procedure-2004.

63. The Committee note that the Purchase Management Procedure prescribed a normal time limit of 12 months for different activities in purchase. The Committee however, observe that in 22 out of 50 cases of procurement in respect of four laboratories, the prescribed time limit was not adhered to. The Ministry took the stand that as these equipments were to be specifically developed for DRDO need, it took time to reach to desired specifications. The Committee have been further informed that with the commissioning and implementation of Integrated Management Software, such delays in placement of order are expected to be curbed. The Committee recommend that this deficiency should be addressed in tune with the amended Procurement Procedure so as to reduce the internal lead time to the barest minimum.

64. Another disquieting aspect noticed by the Committee relates to failure of suppliers to adhere to the prescribed time schedule for delivery of equipment. The Committee find that as against Rs. 67.58 lakh to be recovered by way of liquidated damages in 36 cases on account of delayed delivery, liquidated damages amounting to Rs. 0.46 lakh was recovered only in one case. Surprisingly, in the remaining 35 cases, an amount of Rs. 67.12 lakh leviable was waived by the Directors of the concerned laboratories/establishments. The Ministry have merely stated that decision

was taken to waive the liquidated damages as developmental delays were not attributable to suppliers. Taking strong exception to the decision taken in the matter, which led to apparent loss of revenue to Government, the Committee recommend that these cases be reviewed by DRDO with a view to ascertain the bona fide of the decision taken retrospectively. Also the Ministry should place before the Committee the outcome of the review and action taken thereon within a period of three months of the presentation of this Report.

65. The Committee observe that there were abnormal delays ranging upto 13 years in installation of six machines valuing Rs. 13.78 crore in four laboratories/ establishments namely, DMRL, CVRDE, DRDL and TBRL. A detailed review of some of the cases revealed that the suppliers were responsible for the delays and no time frame for installation of the equipment had either been laid down in the contracts. Other reasons for the delay in installation/commissioning of the equipment were, damaged condition of the equipment received, delay in repair or replacement of the damaged parts by the suppliers etc. The Committee deplore in particular, the delay of 13 years in installation of one equipment namely 200 KW dynamometer at CVRDE. The Committee cannot but conclude that these cases have brought into sharp focus the inept handling of procurement contract and poor monitoring on the part of DRDO. The Secretary, DRDO however, assured the Committee that every effort would be made by the Ministry to ensure that such unjustifiable delays do not recur. Since delay in installation of equipment contributes to delay in execution of time-bound projects, the Committee recommend that DRDO should address these lacunae with immediate effect.

66. The Committee's examination further revealed that there was under-utilisation of four equipment valuing Rs. 5.60 crore due to delay in repair/upgradation in respect of four laboratories namely, SSPL, RCI, PXE and CVRDE. The Committee have been given to understand that repair of direct import equipment take time as the firms are not ready to give bank guarantee for equipment and it is risky to send the equipment for repair due to Commerce Control Laws. The provision of Annual Maintenance contract in case of direct import equipment is also limited to the availability of service center of the Original Equipment Manufacturer in the country. The Committee do appreciate the impediments faced by DRDO in this regard, but they are equally concerned about fall in performance of concerned laboratories due to delay in repair/upgradation of requisite equipment. The Committee desire that as far as repair/upgradation of indigenous equipment are concerned, Store Management Guidelines issued in 2004 be implemented and monitored so that laboratory performance is not affected, at least on this count.

67. The Committee find that four equipments valued at Rs. 3.21 crore were lying unused/unserviceable/surplus in two laboratories viz: DMRL and ITR. The Committee examined in detail two cases relating to procurement of Cryogenic Gas Charging Plant and Automatic Weather and Picture Transmission System.

68. The Cryogenic Gas Charging Plant which was purchased in 1992 by DMRL at a cost of Rs. 25 lakh for conversion of liquid argon into gas failed to generate the required purity of argon, even though the procurement was custom-designed. The

equipment was lying unutilized till February, 2003 and was awaiting disposal, having been declared surplus. The Committee note that the performance of the plant was demonstrated at the firm's premises by using a substitute gas i.e. liquid nitrogen in lieu of liquid argon, which was stated to be not available. The DMRL scientists however accepted the performance status of the plant. But what is intriguing to find is the fact that plant subsequently failed to perform for several years due to non-availability of high purity Liquid argon. It is evident that DMRL scientists faltered in accepting the performance demonstration of the plant with a substitute gas rather than with the liquid argon of the required purity. Furthermore the Committee are extremely unhappy to note that the plant has been declared surplus later on and decision was taken to dispose of the same. Considering the highly unprofessional attitude of the DMRL scientists, as exhibited in the instant case, that led to idling of investment to the tune of Rs. 25 lakh, the Committee recommend that the matter be looked into by DRDO with a view of taking appropriate administrative action. The Committee should be apprised of the action taken in the matter within a period of three months.

69. In the other case, Integrated Test Range (ITR) procured two systems viz Automatic Weather System and Automatic Picture Transmission System at a cost of Rs. 34.16 lakh from a private firm in June 1988 and February, 1989 respectively which remained idle because the firm to instal the system. The Committee note that the matter was taken up by ITR with the National Consumer Forum, which gave the verdict in favour of the laboratory in October, 2002 and directed the supplier to supply new system of latest specification by April, 2003. The firm however did not supply the equipment despite the verdict by the National Consumer Forum. The matter was subsequently followed up with the firm and when the firm failed to instal the equipment, legal action was initiated by ITR. The Committee desire that the matter should be vigorously pursued for expeditious installation of the equipment or realizing adequate compensation for the same.

70. In the backdrop of the case involving procurement of Automatic Weather and Picture Transmission Systems, the Committee recommend that DRDO in future should refrain from dealing with such firms whose performance is found to be unsatisfactory and, in particular, those against whom DRDO has filed a case in any court of law including Consumer Forum. The Ministry should also consider blacklisting such firms. The Secretary, DRDO in a written communication has assured the Committee that the firms, whose performance is found to be unsatisfactory, would be de-registered and would not receive invitation to bid in respect of either limited/open tenders. As regards blacklisting, it has been stated that DRDO presently follows the Government of India, Directorate General of Supply & Disposal procedure. The Secretary, DRDO has also assured the Committee that DRDO does not and will deal with any firm that has failed to deliver and against whom DRDO has filed a case in any court of law including consumer forums. The Committee desire that the Ministry should stand committed to adhere to the assurance made in principle.

71. The Committee are constrained to point out that there were delays ranging from 3 to 12 years in disposal of surplus/obsolete machines costing about Rs. 4.71 crore in 3 laboratories namely CVRDE, DRDL and DMRL. The Committee have been

given to understand that long delays occurred in disposal of surplus/obsolete equipment because the quoted price of the equipment were much lower than the assessed value of the equipment i.e. the Reserved Guiding Price (RGP) fixed by the designated Committee. According to the Ministry, if the highest bid is less than 50% of the RGP fixed, there is no option except to re-float after refixing the RGP as per the present rules. The Committee do appreciate the problems faced by DRDO in this regard. In the face of the fact that equipment could not be sold even at reasonable price, the Committee desire that DRDO should work out a scheme, as suggested by Secretary, DRDO, where technical institutions, engineering colleges and IIT institutions can take some of these equipments for imparting training. In the opinion of the Committee, this is a judicious proposition for salvaging the best out of a surplus/obsolete equipment rather than striving for disposing those at a throw-away price. The Committee recommend that the Ministry should come out with a policy to give effect to the proposal at the earliest.

72. The Committee note that Material Management Policy of DRDO envisages implementation of a computer based information system to ensure most effective research and development. The Committee have been informed that such a system will be placed by August, 2005. Since Ministry claimed that with the commissioning of information management system, the procurement system in DRDO and other allied arena would be streamlines, the Committee desire that efforts should be made to fructify the project within the stipulated period.

73. To sum up, since a substantial portion of the DRDO budget is spent on purchase of materials, a fool proof procurement planning and effective utilisation of plant and equipment needs to be ensured at laboratories/establishments level to derive maximum value for money. Since availability of equipment is critical for the completion of projects, this would also ensure timely completion of projects with the projected costs. The Committee feel that identification of surplus item and their disposal has to be made a regular and time-bound exercise to realize optimum sale value. Moreover, machines remaining idle for want of repairs need to be renewed on a regular basis and immediate action taken for their early repairs. Further, creation of a central data base of prospective suppliers that is accessible to all the laboratories/establishments need to be made a prioritised task for avoiding delays in location of reliable supplies. The role of DRDO as a progressively evolving organization rendering invaluable service for achievement of self-reliance in the Defence sector, has always been applauded by the Committee. With the present global scenario and prevailing security situation, the role of DRDO assumes greater importance. The Parliament is generous in granting huge sums of money for Research & Development activities. At the same time it expects that value for taxpayers money is achieved and accountability to expenditure is ensured. The Committee, therefore, urge upon DRDO to look into the observations and recommendations made in this report in the right perspective.

NEW DELHI;
20 July, 2005

29 Sravana, 1927 (Saka)

PROF. VIJAY KUMAR MALHOTRA,
Chairman,
Public Accounts Committee.

APPENDIX-A

DMM/PP/0000203/P3

xxx	xxx	xxx
xxx	xxx	xxx
xxx	xxx	xxx

7.46: PROGRESS REPORT ON PROCUREMENT, UTILISATION OF STORES AND DISPOSAL OF OBSOLETE STORES

A significant portion of the DRDO Budget is spent on purchase of materials, more effective procurement planning and efficient utilization of plant and equipment needs to be ensured at Lab/Estt level to derive the value for money. Since availability of equipment is critical for completion of the project, this would also ensure timely completion of the projects within the projected cost. The time frame for installation of the equipment has to be laid down by supplier as per Lab/Estt requirement and requires to be strictly monitored. All the civil work wherever applicable to be completed before receipt of the Equipment. Identification of surplus/obsolete items and their disposal needs a thorough attention and has to made a regular and time bound exercise to realize optimum sale value. In this connection this HQ policy letter No. DPRM/CPO.89501/D(R&D) dated 02 March 1993 also refers. Machines remaining idle for want of repairs/upgradation need to be reviewed on a regular basis and immediate action taken for their early repairs.

7.46.1. Annual Report All Labs/Estts would forward a yearly report at closing of the financial year covering details of aspects in which more than one year is taken on following accounts:

- (a) Delay in installation of machines after receipt in the Labs/Estts.
- (b) Under utilisation of equipment due to delay in repair/servicing/upgradation etc.
- (c) Equipment lying unused.
- (d) Delay in disposal of surplus/obsolete equipment after being recommended for disposal.
- (e) Internal lead time is too high i.e. where more than one year is taken from demand initiation for procurement of stores and issues of supply order.

7.46.2. Receipts of Machines/Equipment at the fag end of the projects

Procurement/receipt of equipment after closure or at the fag end of the project and its non-utilisation for the intended project defeats the very purpose of the procurement. No such unjustified procurement should be done in anticipation that such items would be used for ongoing/future projects.

Annual Report: A list of machines/equipment being procured for specific projects but received either after closure of the project or at the fag end of the project (just 3 months ahead of PDC) should be compiled along with the reasons for such instances and be forwarded to DMM/DRDO HQrs at the closure of every financial year.

It is requested that in principle approval may kindly be accorded for incorporating the above-mentioned changes in PM-2003. Formal amendment letter to PM-2003 will be put up after accord of in principle approval.

Sd/-
(Jagdeep)
Dy Dir (MM)
24 Feb, 2005
Tele: 23013076

Dir. (MM)
CC R&D(R) & DS
DS(R&D)
Addl. FA (S) & JS.
Secretary(Defence R & D)

APPENDIX-B

अर्द्ध-शासकीय नं.

DO No.: DMM/PP/0000403/M

भारत सरकार, रक्षा मंत्रालय

GOVERNMENT OF INDIA, MINISTRY OF DEFENCE

रक्षा अनुसंधान एवं विकास संगठन

DEFENCE RESEARCH & DEVELOPMENT ORGANISATION

सामग्री प्रबन्ध निदेशालय

DIRECTORATE OF MATERIALS MANAGEMENT

कमरा नं. 237, 'बी' विंग, सेना भवन, नई दिल्ली -110 011

Room No. 237, 'B' WING, SENA BHAVAN, NEW DELHI-110 011

दूरभाष/Tele :3014835

फैक्स/Fax :3014835

दिनांक/Date 24 February, 2005

To

The Directors
(All Labs./Estts.)

SUBJECT: Compliance of Corrective action: Draft Audit Para: "Procurement and Utilisation of Plant and Equipment in DRDO".

1. Further to this office letter No. DMM/PP/0000403/M dated 20 Oct., 03.
2. Test Audit team visited 15 Labs of DRDO and noticed certain procurement deviations. In Draft Audit Para report of C&AG which has gone upto oral evidence in which Secretary (R&D) appeared before Parliamentary Committee, the following observations were made:
 - (a) Abnormal delay in installation of machines.
 - (b) Under utilization of Equipment due to delay in repair/servicing/upgradation.
 - (c) Equipment lying unused
 - (d) Machines required for specific projects were received either after closure/ fag end of the project.
 - (e) Delay in disposal of surplus/obsolete equipments.
 - (f) Internal Lead Time too high.

3. A very serious view has been taken about the above observations. The following suggestions are made for compliance of all concerned:—

(a) Since almost half of the DRDO Budget is spent on purchase of materials, more effective procurement planning and efficient utilization of plant and equipment needs to be ensured at Lab level to derive the value for money. Since availability of equipment is critical for completion of the project, this would also ensure timely completion of the projects within the projected cost.

(b) The time frame for installation of the equipment has to be laid down by supplier as per lab requirement and requires to be strictly monitored. All the civil works wherever applicable to be completed before receipt of the Equipment.

(c) Identification of surplus/obsolete items and their disposal needs a thorough attention and has to be made a regular and time-bound exercise to realize optimum sale value. In this connection this HQ Policy letter No., DPRM/CPO/89501/D(R&D) dated 02 March 1993 also refers.

(d) Machines remaining idle for want of repairs/upgradation need to be reviewed on a regular basis and immediate action taken for their early repairs.

5. Further procurement/receipt of equipment after closure or at the fag end of the project and its non-utilisation for the intended project defeats the very purpose of the procurement. No such unjustified procurement should be done in anticipation that such items would be used for ongoing/future projects.

Keeping above in view, all Labs are advised to comply to the laid down purchase procedure alongwith above suggestions to avoid any deviations/objections by the audit authorities. With effect financial year ending 31 March 05, all labs will forward a yearly report covering details of aspects in which the delays in delivery, installation and utilization of Equipment and delay in disposal of surplus/obsolete equipment is greater than one year, so as to reach this HQrs by 10th of April of next financial year.

Sd/-

(C.M. Dhawan)
Director (MM)

APPENDIX -C

Tele: 23015763

No. SA/SO/06/2005-254
GOVT. OF INDIA
MINISTRY OF DEFENCE
DEPTT. OF DEFENCE R&D
Room No. 137
South Block
New Delhi-110011

21 February, 2005

To

The Honourable Chairman
Public Accounts Committee
Lok Sabha Secretariat

SUBJECT: *Audit paragraph 5.1 of the C&AG Report No. 6 of 2004 relating to "Procurement and Utilisation of Plant and Equipment in DRDO".*

Ref: Meeting of the Public Accounts Committee held on 19th January 2005

1. I am grateful to the Honourable PAC for giving me an opportunity to personally respond to the questions and comments of the Honourable members on 19th January, 2005. At the end of this meeting the Honourable Chairman, PAC had desired certain assurances and clarifications, which are contained in the following paragraphs.

2. The DRDO first prepared and notified a procurement procedure manual in 1997. Based on experience of its use as also experience of actual problems encountered during procurement, this manual has been updated from time to time to improve the procedure. The DRDO has also, in April 2004, prepared and circulated guidelines on the management of inventory after it has been procured..... Yet another initiative aimed at improvement and reform of the system is the ongoing development and implementation of a computer-based integrated materials management System. this system is expected to speed up the procurement process and especially help DRDO keep comprehensive organization-work track of its machinery and other equipment.

3. However, it may be noted that for the purpose of development of sophisticated weapon systems, DRDO needs to procure machinery and equipment to specifications that often fall within the ambit of the technology denial regimes of nations from whom such equipment must necessarily be imported. This is often a major factor leading to delay.

4. At present the DRDO notified procurement procedure provides for de-registration of firms whose performance is found to be unsatisfactory. such firms do not receive invitations to bid in respect of limited tenders. Even where such firms send

bids against open tenders, they are disqualified by the technical evaluation committees. As regards blacklisting, DRDO presently follows the Government of India, Directorate General of Supply & Disposal procedure. An extract of the DGS&D blacklisting procedure is enclosed. Within the next three months, DRDO proposes to put up the list of de-registered firms on its public website.

5. DRDO does not and will not deal with any firm that has failed to deliver and against whom DRDO has filed a case in any court of law including consumer forums.

6. For disposal of old, unserviceable and surplus machines, DRDO has notified a procedure in 1993. This procedure is considered to be adequate. A drive is proposed to be launched with immediate effect to implement the procedure and ensure the minimization of stores of this nature.

7. In every case of delay in procurement or delay in utilization or non-utilization or under-utilisation or delay in disposal, efforts have always been made to ascertain all the facts with a view to see if there has been any lapse on the part of any individual.

8. As regards three cases that were discussed in detail during the meeting, *viz.*, automatic weather stations, induction furnace and dynamometer, I would like to reassure the Honourable PAC that we will ensure that unjustifiable delays do not recur. Accordingly, the purchase management manual is being amended to provide for annual reports from all labs in respect of cases in which the delay in delivery, installation and utilization is greater than one year.

9. Litigation associated with non-supply or unsatisfactory supply or performance can be one of the causes of delay. An example is the automatic weather station case wherein the consumer forum took seven years to give a judgement and thereafter another three years have elapsed but the offending firm has not carried out the instructions of the consumer forum. The Honourable PAC may like to consider recommending the grant of powers to the Secretary (Defence Research & Development) to enable the recovery of DRDO dues as arrears of land revenue. Such powers are presently delegated to District Magistrates.

10. I would also like to take this opportunity to propose a visit by the honourable members of the PAC to some DRDO labs to enable a better understanding of the functioning of the labs, the nature and scope of projects and programmes and the associated procurement of machines and equipment.

(M. NATARAJAN)
SA to RM

APPENDIX-I

PARAGRAPH NO. 5.1 OF AUDIT REPORT NO. 6 OF 2004 (DEFENCE SERVICES— ARMY AND ORDNANCE FACTORIES) RELATING "PROCUREMENT AND UTILISATION OF PLANT AND EQUIPMENT IN DRDO"

5.1. Procurement and utilisation of plant and equipment in DRDO

5.1.1. Introduction

The Defence Research and Development Organisation (DRDO) provides scientific and technical support to the Armed Forces through design and development of new and sophisticated equipment to meet operational requirements. A significant objective is the establishment of capability for indigenous production of equipment which, hitherto, were imported *i.e.* self-reliance in defence requirements. The mandate of DRDO is accomplished through a network of 50 laboratories/establishments. The activities of DRDO are organised through specific projects of the following types.

- (i) Staff projects taken up at the instance of the Services against specific qualitative requirements.
- (ii) Competence building projects undertaken for building up expertise in specific disciplines.

5.1.2. Scope of Audit

A review was conducted on the procurement and utilisation of imported and indigenous plant and equipment, procured during the period from 1997-98 to 2001-02. All cases of equipment costing of Rs. 5 lakh and above were studied in audit.

Fifteen R&D laboratories/establishments out of 50 were selected for review as detailed in Annex-I. The functions of the fifteen laboratories and establishments are given in Annex-II.

5.1.3. Audit Objectives

The Specific objectives of the review were:

- (a) to examine whether the procurement of plant and equipment by DRDO establishments was justified;
- (b) to analyse the process of procurement and see whether it was conducted effectively and efficiently with respect to cost and time, and
- (c) to assess the efficiency of utilisation of plant and equipment procured.

5.1.4. Highlights

- There were abnormal delays ranging upto 13 years in installation of six machines valuing Rs. 13.78 crore in four Laboratories/Establishments.
(Paragraph 5.1.7)
- There was under-utilisation of four equipments valuing Rs. 5.60 crore in four Laboratories.
(Paragraph 5.1.8)
- In two Laboratories, there were four equipments valuing Rs. 3.21 crore lying unutilised.
(Paragraph 5.1.8)
- Eight machines valuing Rs. 1.75 crore required for specific projects were received in five Laboratories either after closure/at the fag end of the project.
(Paragraph 5.1.6)
- A Laboratory procured equipment costing Rs. 1.60 crore which were not envisaged in the project proposal.
(Paragraph 5.1.6)
- Non-realisation of cost of Rs. 4.89 crore for the assets installed at Mishra Dhatu Nigam for over 11 years.
(Paragraph 5.1.9)

5.1.5. Budget and Expenditure

The following table depicts the budget allotment and actual expenditure of DRDO:
(Rs. in crore)

Year	Total budget allocation	Total expenditure	Budget allocation for purchase of material* only	Actual expenditure on purchase of material* only
1997-98	1683.00	1958.22	486.83	561.81
1998-99	2476.80	2299.61	1000.32	994.17
1999-00	2780.00	2833.47	1190.00	1254.04
2000-01	3101.75	3355.81	1304.24	1548.06
2001-02	3518.34	3127.97	1607.33	1395.53

(*) Material includes stores, plant and equipment.

Though stores are revenue items, DRDO was accounting for stores, plant and equipment together as revenue expenditure. Only civil works were treated as capital items. DRDO stated (December 2003) that a Study Group on Budgetary Reforms had suggested in 2002 that the capital purchases of plant/equipment were to be classified distinctly as 'capital' and that the recommendations would be implemented from the financial year 2004-05.

Budgetary allocations and actual expenditure on material in respect of the fifteen Laboratories and establishments selected for review for the five years from 1997-98 to 2001-02 were as under:—

				(Rs. in crore)
Sl. No.	Name of Laboratories/Establishments	Total budget allotment	Budget allotment for purchase of material	Expenditure on purchase of material
1.	Defence Research and Development Laboratory, Hyderabad (DRDL)	200.95	70.22	70.04
2.	Research Centre Imarat, Hyderabad (RCI)	145.46	84.55	84.32
3.	High Energy Materials Research Laboratory, Pune (HEMRL)	123.01	34.75	20.52
4.	Armament Research and Development Establishment, Pune (ARDE)	174.18	84.82	76.43
5.	Terminal Ballistic Research Laboratory, Chandigarh (TBRL)	82.02	38.40	38.23
6.	Combat Vehicle Research and Development Establishment, Avadi (CVRDE)	171.65	67.51	65.18
7.	Defence Electronics and Research Laboratory, Hyderabad (DLRL)	318.02	199.35	188.78
8.	Defence Metallurgical Research Laboratory, Hyderabad (DMRL)	146.00	57.43	56.63
9.	Research and Development Establishment (Engineers) Pune [RDE(E)]	96.73	44.20	41.53
10.	Vehicle Research Development Establishment, Ahmednagar (VRDE)	81.21	34.63	34.22
11.	Solid State Physics Laboratory, Delhi (SSPL)	101.94	47.75	44.41
12.	Institute of Nuclear Medicine and Allied Sciences, Delhi (INMAS)	40.70	19.79	19.20
13.	Laser Science and Technology Center, Delhi (LASTEC)	103.93	70.03	60.49
14.	Integrated Test Range, Balasore (ITR)	120.62	81.01	79.49
15.	Proof and Experimental Establishment, Balasore (PEE)	71.85	17.48	19.46
TOTAL		1978.27	951.92	898.93

The details of year-wise budget allotment and actual expenditure on material of the fifteen laboratories and establishments are given below:

(Rs. in crore)				
Year	Total budget allotment	Budget allocation for purchase of material	Actual expenditure on purchase of material	Savings
1997-1998	302.66	150.91	143.08	7.83
1998-1999	348.91	158.59	139.75	18.84
1999-2000	405.03	187.11	179.87	7.24
2000-2001	447.12	214.81	207.38	7.43
2001-2002	474.55	240.50	228.85	11.65
TOTAL:-	1978.27	951.92	898.93	52.99

The DRDO establishments spent 45.44 per cent of their budget on purchase of stores, plant and equipment.

5.1.6. Procurement Planning

Procurement/receipt of equipment after the closure or at the fag end of the project

Eight equipment costing Rs. 1.75 crore required for specific were received either after the closure of the project or at the fag end of the project as illustrated below:—

Sl. No.	Name of Lab/Estt.	Equipment	Cost	Closure Of Project	Equipment installed on	Remarks
1.	ARDE	Piezo d 33, dghh Measuring system	Rs. 14.65 lakh	December 2001	December 2001	-
2.	DMRL	High temperature Air Furnace	Rs. 12 lakh	December 1999	August 1999	-
3.	DMRL	Electric Shell Pre-heating Furnace	Rs. 10 lakh	December 2002	June 2002	PDC(*) Extended to 2004. Not used up to February 2003
4.	DMRL	Plate leveling Machine	Rs. 9.33 lakh	November 2002	July 2002	Used only for 7½ hours since its installation.
5.	VRDE	Data Acquisition Products	Rs. 6.80 lakh	December 1998	December 1998	-
6.	HEMRL	HOT compaction Machine	Rs 15.50 lakh	September 2002	September 2002	Used only for 18½ hours.
7.	DMRL	Optical Microscope	Rs. 6.04 lakh	January 2000	June 1999	Used only for 7 hours 15 minutes.
8.	SSPL	Plasma Enhanced Chemical Vapour Deposition System	Rs. 1.11 crore	September 2002	August 2002	Used for only 1 month in the Project.

(*) PDC—Probable date of completion

The delay in receipt of the equipment was due to delay on the part of DRDO in placement of orders, delay in inspection, delay in completion of civil works by Military Engineer Services, etc.

Hence equipment worth Rs. 1.75 crore could not be used for intended project/ purpose DRDO stated (December 2003) that they were being used for ongoing projects.

Procurement of equipment not envisaged in the project proposals costing Rs. 1.60 crore

The project proposal in respect of SSPL Project titled " Development of IR sensor module for MBT" envisaged procurement of the following equipment (costing more than Rs.5 lakh each.)

Sl. No.	Name of the Equipment	Cost (Rs. in crore)
1.	Turbo Molecular Pump	0.10
2.	ION Milling	1.00
3.	Mask Alignment	0.70
4.	Bonder Programmable	0.50
5.	Test Dewar & Dewar	0.18
Total		2.48

Scrutiny of project expenditure revealed that some equipment, not proposed in the sanctioned project, were procured after incurring a total expenditure of Rs. 1.60 crore mostly through imports.

DRDO stated in December 2003 that at the time of sanction of the project, all major equipment envisaged were included in the budget. As the project progressed, a need was felt for additional equipment not budgeted in the original sanction. SSPL indicated that procurement and re-appropriation of funds under different heads had already been approved by the Ministry.

The procurement of additional equipment costing Rs. 1.60 crore which works out to 39 per cent of the total cost was reflective incorrect project estimation.

The cases discussed above reflect the need to strengthen procurement planning since in many instances, equipment was received either towards the end or after the closure of the projects. In some cases project estimation underwent frequent changes pointing to the need for more realistic project planning.

5.1.7. Procurement Process

Failure to adopt open tendering

The Purchase Management Procedure of DRDO issued in July 2000 stipulated that in general open/global tenders should be invited to generate as much competition as possible. However, if warranted by the situation, other modes of tendering viz. limited, single and proprietary could also be used in accordance with the prescribed

procedure. Audit observed that out of 30 cases in five laboratories involving purchase of equipment costing Rs. 10.17 crore there were only four open tenders. In 17 cases purchase was made on the grounds of urgency of requirement . Out of 5 cases processed as urgent in the years 2001 and 2002 *i.e.* after issue of Purchase Management Procedure by DRDO only two orders were placed within 12 months and three were placed after 13 to 21 months of raising of demands. In 12 other cases considered urgent, for which orders were placed upto the year 2000, the time gap between the raising of demand and actual ordering ranged from 5 to 11 months in 8 cases and over 12 months in four cases. The grounds of urgency to justify limited tendering thus become questionable in such cases.

Long Internal Lead Time

The Purchase Management Procedure [Para 4.4.2 (g)] prescribed a normal time-limit of 12 months for different activities involved in purchase, *i.e.* from the date of demand from the user department to the date of placement of supply order. A test check of 50 cases in 4 laboratories revealed that in 22 cases supply orders were placed after 12 months from the date of demand from the users. In reply these delays were attributed to reasons like complex specifications, non-availability of competent vendors, custom-made equipment, etc.

Long External Lead Time

Audit analysed the extent to which the suppliers were able to adhere to the time schedule for delivery. A test check of 118 cases in 8 laboratories revealed that in only 43 cases were supplies made in time. In 65 cases, items were received after delays upto one year. In 9 cases, items were received with delays of more than one year and ranging upto three years. One case was outstanding beyond five years. Liquidated damages were required to be recovered for all demonstrable losses on account of delays. The total amount to be recovered by way of liquidated damages in 36 cases was Rs. 67.58 lakh. However liquidated damages amounting to Rs. 0.46 lakh was recovered in only one case. In the remaining 35 cases, an amount of Rs. 67.12 lakh leviable was waived by the Directors of the laboratories/establishments. DRDO stated (December 2003) that most of the equipment procured by it was not available off the shelf. There were often unavoidable delays in supplying custom-built equipment. The liquidated damages clause was put just as a deterrent and that imposing it in exceptional circumstances would be injudicious.

Delay in Installation of Equipments

Delay in installation of equipment after receipt contributes to delay in execution of time-bound projects. In 20 cases reviewed by audit, there had been delays ranging from 1 to 13 years in installation of equipment costing Rs. 18.55 crore. The details of six cases involving equipment costing Rs. 13.78 crore, where there were abnormal delays,

are given in the table below:

Sl. No.	Name of Lab./Estt.	Equipment	Cost	Date of receipt	Status as of March 2003
1.	DMRL	Vacuum Induction Melting and Casting Furnace	Rs. 1.36 crore	April 2000	Installed in April 2002
2.	DMRL	High Temperature High vacuum Furnace	Rs. 1.08 crore	August 2000	Installed in February 2002
3.	CVRDE	200 KW Dynamometer	Rs. 36.75 lakh	June 1989	Installed in August 2002
4.	DMRL	Electric Furnace Chamber	Rs. 13.70 lakh	January 2002	Not installed
5.	DRDL	3D CNC co-ordinate measuring machine	Rs. 4.63 crore	September 2002	Not installed
6.	TBRL	Warm Isostatic Press	Rs. 6.20 crore	October 2002	Installed in January 2003, yet to be commissioned

In all these cases, the supplier was responsible for the delays. The time-frame for installation of the equipment by the suppliers had not been laid down in the contracts.

Other reasons for non-installation/commissioning of the equipment were: delay in calibration, equipment received in damaged condition, delay in repair or replacement of the damaged parts by the supplier and delay in completion of civil works before the receipt of the equipment. DRDO stated in December 2003 that the delay was abnormal in the case of Dynamometer but in other cases it might not be treated as abnormal since majority of purchases were not off the shelf. They added that out of a total procurement of Rs. 900 crore approximately the delay in installation took place only for 1.5 per cent of total expenditure. However, the cases discussed relate to a test check in only six[@] laboratories.

5.1.8. Under Utilisation of Equipment

Under utilisation due to delay in repairs/servicing/upgradation

Test check revealed that equipment costing Rs 5.60 crore were under utilised or remained unutilised due to delay in repair and upgradation.

Equipment costing Rs 1.67 crore lying under repair for more than 1 year

SSPL procured a Flip Chip Alignor Bonder (machine) at a cost of Rs 1.67 crore in August 1998. The machine was commissioned in August 1998 for the purpose of integration of two chips in the focal Plane Array Project. The expected life of the machine was 10 years. Since its installation, the machine was put to use for 551 hours only till October 2001 and was thereafter lying under repairs. The machine was yet to be repaired (November 2003). DRDO stated (December 2003) that an order had been placed on 28 November 2003 for its repair and Annual maintenance.

Equipment remaining unutilized for more than 2 years for want of repairs

RCI imported a Frequency Response Analyser at a cost of Rs 15.64 lakh in October 2000. It remained non-functional till March 2003. When pointed out by Audit in March 2003, RCI got the equipment rectified in April 2003. Thus the equipment received in October 2000 remained unutilised for 30 months. DRDO accepted the facts in December 2003 but had no comments to offer on the case.

[@]DMRL, CVRDE, DRDL, TBRL, RCI, HEMRL

Equipment valuing Rs. 3.50 crore remained unserviceable for want of parts

PXE procured a Tracking Doppler Radar System DR-6700 at a cost of Rs. 3.50 crore in July 1997. The equipment was commissioned in October 1999. The radar was not functioning after 26 September 2001 because of defects in its accessories. The defective parts were sent to the supplier firm in July 2002 for warranty repair/replacement free of cost. DRDO stated (December 2003) that the radar had been repaired by the firm and received on 19 December 2003.

Voltas OMEGA Crane 25 Tonne remained unutilized for more than four years due to repair

A Voltas Omega Crane (25 tonne) was purchased in December 1987 by CVRDE at a cost of Rs. 27.80 lakh with a service life of 15 years. The crane, the only one of its kind, is essentially required for lifting hull and turret of armoured fighting vehicles. The crane remained out of order from October 1993 to April 1996 and again since January 2002. Thus, during the last 15 years, the crane was non-functional for more than 4 years due to delay in repair. DRDO replied (December 2003) that future use of the crane would be decided by a Board of Officers.

Equipment lying unutilised

The following four equipment valued at Rs. 3.21 crore were lying unused/unserviceable/surplus in two laboratories.

Cryogenic Gas Charging Plant

DMRL in April 1992 purchased a Cryogenic Gas Charging Plant at a cost of Rs. 25 lakh for conversion of liquid argon into gas. The cryogenic plant could not generate the required purity of argon without a complementary purification plant expected to cost Rs. 60 lakh, even though the equipment procured was custom-designed. The equipment was lying unutilised with DMRL as of February 2003 and was awaiting disposal, having been declared surplus.

Weighing and sorting machine

DMRL procured a weighing and sorting machine valuing Rs. 25 lakh in June 1994. The machine could not be utilised due to inaccuracies. Thereby, weighing and sorting of the warhead pre-fragment continued to be done manually. DMRL stated in February 2003 that the machine was unserviceable and action for its disposal would be taken.

Automatic weather and picture transmission systems

ITR procured two systems viz. Automatic Weather System and Automatic Picture Transmission System at a cost of Rs. 34.16 lakh (90 per cent payment) from a private firm in June 1988 and February 1989 respectively. The firm failed to install the systems and the equipment remained idle. ITR filed two cases with the National Consumer Forum, New Delhi, in January 1995 against the supplier. The Forum, in its final verdict given on 22 October 2002 directed the supplier to supply new systems of latest specification within 6 months from the date of issue of the order. The firm had not supplied the new equipment till date (November 2003).

Plessy Radar System

A surveillance radar system was procured against a contract concluded with Plessy Radar Ltd., UK, in October 1987, at a cost of £9,47,200.00 (Rs. 2.37 crore). The radar was commissioned in March 1989.

After rendering service upto February 1995, a few of its sub-systems became unserviceable and it became non-functional. Initially, the supplier firm did not agree to repair the system but later agreed to repair it. The firm, however, demanded more than 50 per cent of the cost of the system and the repair was not found economically viable. Owing to technological advancements in surveillance systems, ITR did not require this radar any more. DRDO stated in December 2003 that Board of Officers was convened for declaring the radar as unserviceable and initiating action for disposal.

5.1.9. Other Points of Interest

Loss due to delay in disposal of surplus/obsolete equipment

There were delays in disposal of surplus equipment at CVRDE. Two machines costing Rs 13.13 lakh became obsolete/beyond economical repair in 1990/1992 but were yet to be disposed of (January 2003). At DRDL, nine cases of delay in disposal of unwanted equipment, each with book value of Rs 5 lakh and above, were noticed. The laboratory took more than 3 to 8 years for their disposal. At DMRL, there were 8 such equipments costing Rs. 2.5 crore. The Laboratory was yet to dispose off 5 equipments (March 2003) with book value of Rs. 2.03 crore which were declared surplus during the years 1998-2001.

Non-realisation of Rs. 4.89 crore for the plant and machinery installed at Mishra Dhatu Nigam (MIDHANI) for over 11 years.

Although the role of DRDO is primarily development of technology and its transfer to a production agency, DMRL entered into a joint venture in June 1988 with Mishra Dhatu Nigam (MIDHANI), a Public Sector Undertaking for development of a viable technology for manufacture of welded titanium tubes. Under the agreement, DMRL would procure and instal all imported and indigenous equipment and provide all technical and R&D support to MIDHANI to set up the infrastructure in their premises. MIDHANI after using the facility for two years for commercial production, would exercise the option to take over the infrastructure at the depreciated value payable to DMRL.

As against the sanctioned amount of Rs. 4.76 crore, actual expenditure on import of equipment was Rs. 10.60 crore. In April 1991, MIDHANI agreed to finance the expenditure over and above the amount sanctioned by the Government.

In June 1996, the agreement with MIDHANI was amended whereby the latter was to exercise its option within two years of trial production and establishment of technology to take over the facilities and compensate DMRL to the extent of Rs. 4.89 crore in 12 equal annual instalments. MIDHANI, while expressing its willingness in April 1997 and again in March 1998, to take over the facility, requested DMRL to consider deferment of the payment schedule for another five years from the date of takingover and also to consider the depreciation for an additional five years. MIDHANI had neither taken over the plant nor paid Rs. 4.89 crore to DMRL as of June 2003.

Absence of an effective computer based Information Management System (IMS)

The material management policy of DRDO envisages implementation of a computer-based information management system to ensure cost effective R&D. DRDO was yet to adopt an integrated material management information system. In its absence, the laboratories adopt their own information systems which would make their integration a difficult task at a later date.

DRDO stated in December 2003 that development of integrated material management system-software was in progress.

5.1.10. Conclusion and Recommendations

- (i) Since about 45 per cent of the DRDO's budget is spent on purchase of material, more effective procurement planning and efficient utilisation of plant and equipment, needs to be ensured to derive value for money. Since availability of equipment is critical for the completion of projects, this would also ensure timely completion of projects within the projected costs.
- (ii) Creation of a central database of prospective suppliers that is accessible to all the labs/estts. needs to be made a prioritised task for avoiding delays in location of reliable suppliers.
- (iii) Identification of surplus items and their disposal has to be made a regular and time-bound exercise to realise optimum sale value.
- (iv) Machines remaining idle for want of repairs need to be reviewed on a regular basis and immediate action taken for their early repairs. DRDO agreed with these recommendations in December 2003.

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ANNEXURE-I

(Referred to in Para 5.1.2)

List of fifteen laboratories and establishments covered in the Review

- (i) Defence Research and Development Laboratory (DRDL)
- (ii) Research Centre Imarat (RCI)
- (iii) High Energy Materials Research Laboratory (HEMRL)
- (iv) Armament Research and Development Establishment (ARDE)
- (v) Terminal Ballistic Research Laboratory (TBRL)
- (vi) Combat Vehicle Research and Development Establishment (CVRDE)
- (vii) Defence Electronics and Research Laboratory (DLRL)
- (viii) Defence Metallurgical Research Laboratory (DMRL)
- (ix) Research and Development Establishment (Engineers) - RDE(E)
- (x) Vehicle Research Development Establishment (VRDE)
- (xi) Soha State Physics Laboratory (SSPL)
- (xii) Institute of Nuclear Medicine and Allied Sciences (INMAS)
- (xiii) Laser Science and Technology Center (LASTEC)
- (xiv) Integrated Test Range (ITR)
- (xv) Proof and Experimental Establishment (PXE)

Functions of the fifteen Laboratories and establishments selected for Review

- (i) & (ii) DRDL and RCI have been primarily responsible for the design and development of missile systems for the three services.
- (iii) The HEMRL has been dealing with entire spectrum of military explosives and high energy materials.
- (iv) The ARDE is responsible for developing an R&D base in the field of conventional armaments.
- (v) TBRL provides facilities for basic and applied research in detonics and blast studies, evolves design data of armament stores and develops all kinds of warheads and related sub-systems.
- (vi) The Primary function of CVRDE is to design, develop and manufacture prototypes of tracked combat vehicles and to conduct performance evaluation of these vehicles.
- (vii) DLRL is responsible for development of electronic warfare systems covering both communication and radar and ground electronics system for integrated guided missile development programme.
- (viii) DMRL deals with generation of technologies for defence hardware production, metallurgical coverage for services and R&D on futuristic materials.
- (ix) RDE(E) is responsible for system engineering, development of mobility equipments, combat engineering and ground support equipments.
- (x) VRDE deals with design, development, modification and evaluation of all types of general service vehicles, tanks, transporters, cranes, specialist role vehicles, etc.
- (xi) SSPL conducts R&D work in the design and development of solid state devices, electronic components/sub-systems and semi conducting materials.
- (xii) The INMAS conducts research in basic and medical sciences using radio-isotopes and effects of radiation on human body.
- (xiii) The LASTEC conducts research and development of laser sources, material and techniques, development of solid state laser, gas laser, high power laser, etc.

- (xiv) ITR is responsible for setting up of test facilities of rockets, missiles and airborne system for other R&D Laboratories and their performance evaluation.
- (xv) PXE provides test facilities of arms and ammunition produced by various ordnance factories and newly designed and developed ammunition by R&D Laboratories in its testing range to evaluate their performance.

APPENDIX-II

STATEMENT OF OBSERVATIONS AND RECOMMENDATIONS

S.No.	Para No.	Ministry/ Deptt.	Observations/Recommendations
1	2	3	4
1.	60	Defence (DRDO)	<p>The Defence Research and Development Organization (DRDO) provides scientific and technical support to the Armed Forces through design and development of new and sophisticated equipment to meet operational requirements. A significant objective of DRDO is the establishment of capability for indigenous production of equipment with a view to attaining self-reliance in defence requirements. The mandate of DRDO is accomplished through a network of 50 laboratories/establishments whose activities are organized through specific projects. The Audit paragraph in question seeks a review of procurement and utilization of imported and indigenous plant and equipment by 15 Research & Development (R&D) laboratories/establishments procured during the period from 1997-98 to 2001-02. The Committee note that DRDO establishments spent more than 45 per cent of their budget on purchase of stores, plant and equipment. The facts brought out in the Audit paragraph and subsequent examination by the Committee reveal that procurement planning of material by DRDO and its utilization leave a lot to be desired.</p>
2.	61	-do-	<p>The Committee note that eight equipment costing Rs. 1.75 crore required for specific projects undertaken by five laboratories/establishments (ARDE, DMRL, VRDE, HEMRL and SSPL) were received either after the closure of the Project or at the fag end of the Project. The Ministry have attributed the reasons for delay in receipt/installation of these equipments to re-floating of tenders, seeking technical clarifications, embargo imposed for exporting equipment to DRDO etc. According to them, none of the Projects was delayed due to delay</p>

1	2	3	4
			<p>in receipt of these equipments. As regards utilization of the equipment, which could not be substantially used for the specific purpose, the Committee have been informed that these were used in subsequent projects. In order to ensure timely procurement of requisite equipments and their effective utilisation for the intended purpose, the Ministry have stated that Purchase Management Procedure was suitably amended and instructions have accordingly been issued to all concerned laboratories/establishments for strict compliance of the amended Procedure including regular reporting by them to the DRDO Headquarters. The Ministry further added that with the commissioning of integrated Material Management Software by the laboratories of DRDO, expectedly by August, 2005, lead time for procurement of equipment will be curtailed substantially thereby helping in their timely acquisition. The Committee however, regret to observe that DRDO was largely responsible for delay in receipt/installation of the equipment in question. What has caused concern to the Committee is the fact that equipment could not be put to use in the specific projects as envisaged in the procurement planning. It is altogether a different proposition that those equipments were utilized in subsequent projects. The Committee take note of the steps taken by the Ministry to plug deficiencies in the system of procurement planning and desire that an institutional mechanism should be put in place to monitor implementation of revised procedure by field formations with a view to strengthening procurement system.</p>
3.	62	Defence (DRDO)	<p>The Committee find that besides deficient procurement planning, the procurement process in DRDO is also afflicted by serious procedural shortcomings. the Purchase Management Procedure of DRDO, issued in July 2000, stipulated that open/global tenders should be invited to generate as much competition as possible. However, to the contrary, 17 out of 30 cases in respect of five laboratories, limited tenders were resorted to on grounds of urgency for effecting purchases. What is further</p>

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			<p>disturbing to note is the fact that out of 5 cases processed as urgent, three orders were placed after 13 to 21 months of raising of demands. In 12 other cases, the time gap between the raising of demand and actual ordering ranged from 5 to 11 months in 8 cases and over 12 months in four cases. In the opinion of the Committee, the grounds of urgency to justify limited tendering thus become questionable in such cases. According to the Ministry, limited tendering is chosen for cases whose source of supply are definitely known and are limited, for reasons of security and public interest, when requirement of stores is urgent and the desired delivery schedule can not be met if open tenders are invited. The Committee are aware of the unique nature of some of the stores required in the context of research & development including the aspect of security and public interest and render full credence to their procurement through the mode of limited tendering. But the criticality of the matter lies in the fact that the desired delivery schedule could not be adhered to in almost all the reviewed cases, for which general procedure of open tendering was waived. The Secretary, DRDO was however, very candid in admitting that resorting to limited tender on grounds of urgency in such a large number of cases was not procedurally justified and could lead to some lapses. The Committee have been informed that with the amendment effected in the procurement procedure in DRDO, the processes of procurement have been specified with better clarity that would help reduce margin of error on the part of operating units. While appreciating the efforts made by DRDO in right earnest, the Committee desire that in future cases of procurement under urgent circumstances should be critically analysed and closely monitored so as to ensure that delegated power is not misused and objective of procurement is fully achieved. The Committee would like to be furnished a status report about the procurement made under limited tendering consequent to issuance of Procurement Procedure-2004.</p>
4.	63	Defence (DRDO)	<p>The Committee note that the Purchase Management Procedure prescribed a normal time limit of 12 months for different activities in purchase. The Committee</p>

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			<p>however, observe that in 22 out of 50 cases of procurement in respect of four laboratories, the prescribed time limit was not adhered to. The Ministry took the stand that as these equipments were to be specifically developed for DRDO need, it took time to reach to desired specifications. The Committee have been further informed that with the commissioning and implementation of Integrated Management Software, such delays in placement of order are expected to be curbed. The Committee recommend that this deficiency should be addressed in tune with the amended Procurement Procedure so as to reduce the internal load time to the barest minimum.</p>
5.	64	Defence (DRDO)	<p>Another disquieting aspect noticed by the Committee relates to failure of suppliers to adhere to the prescribed time schedule for delivery of equipment. The Committee find that as against Rs.67.58 lakh to be recovered by way of liquidated damages in 36 cases on account of delayed deliver, liquidated damages amounting to Rs.0.46 lakh was recovered only in one case. Surprisingly, in the remaining 35 cases, an amount of Rs.67.12 lakh leviabale was waived by the Directors of the concerned laboratories/establishments. The Ministry have merely stated that decision was taken to waive the liquidated damages as developmental delays were not attributable to suppliers. Taking strong exception to the decision taken in the matter, which led to apparent loss of revenue to Government, the Committee recommend that these cases be reviewed by DRDO with a view to ascertain the <i>bona fide</i> of the decision taken retrospectively. Also the Ministry should place before the Committee the outcome of the review and action taken thereon within a period of three months of the presentation of this Report.</p>
6	65	-do-	<p>The Committee observe that there were abnormal delays ranging upto 13 years in installation of six machines valuing Rs. 13.78 crore in four laboratories/establishments namely, DMRL, CVRDE, DRDL and TBRL. A detailed review of some of the cases revealed that the suppliers were responsible for the delays and no time frame for installation of</p>

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			<p>the equipment had either been laid down in the contracts. Other reasons for the delay in installation/ commissioning of the equipment were, damaged condition of the equipment received, delay in repair or replacement of the damaged parts by the suppliers etc. The Committee deplore in particular, the delay of 13 years in installation of one equipment namely 200 KW Dynamometer at CRDE. The Committee cannot but conclude that these cases have brought into sharp focus the inept handling of procurement contract and poor monitoring on the part of DRDO. The Secretary DRDO however, assured the Committee that every effort would be made by the Ministry to ensure that such unjustifiable delays do not recur. Since delay in installation of equipment contributes to delay in execution of time-bound projects, the Committee recommend that DRDO should address these lacunae with immediate effect.</p>
7.	66	Defence (DRDO)	<p>The Committee's examination further revealed that there was under-utilisation of four equipment valuing Rs. 5.60 crore due to delay in repair/upgradation in respect of four laboratories namely, SSPL, RCI, PXE and CVRDE. The Committee have been given to understand that repair of direct import equipment take time as the firms are not ready to give bank guarantee for equipment and it is risky to send the equipment for repair due to Commerce Control Laws. The provision of Annual Maintenance contract in case of direct import equipment is also limited to the availability of service centre of the Original Equipment Manufacturer in the country. The Committee do appreciate the impediments faced by DRDO in this regard, but they are equally concerned about fall in performance of concerned laboratories due to delay in repair/upgradation of requisite equipment. The Committee desire that as far as repair/upgradation of indigenous equipment are concerned, Store Management Guidelines issued in 2004 be implemented and monitored so that laboratory performance is not affected, at least on this count.</p>
8.	67	-do-	<p>The Committee find that four equipments valued at Rs.3.21 crore were lying unused/ unserviceable/ surplus in two laboratories viz: DMRL and ITR. The</p>

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			Committee examined in detail two cases relating to procurement of Cryogenic Gas Charging Plant and Automatic Weather and Picture Transmission System.
9.	68	Defence (DRDO)	<p>The Cryogenic Gas Charging Plant which was purchased in 1992 by DMRL at a cost of Rs.25 lakh for conversion of liquid argon into gas failed to generate the required purity of argon, even though the procurement was custom-designed. The equipment was lying unutilized till February,2003 and was awaiting disposal, having been declared surplus. The Committee note that the performance of the plant was demonstrated at the firm's premises by using a substitute gas <i>i.e.</i> liquid nitrogen in lieu of liquid argon, which was stated to be not available. The DMRL scientists however accepted the performance status of the plant. But what is intriguing to find is the fact that the plant subsequently failed to perform for several years due to non-availability of high purity Liquid argon. It is evident that DMRL scientists faltered in accepting the performance demonstration of the plant with a substitute gas rather than with the liquid argon of the required purity. Furthermore the Committee are extremely unhappy to note that the plant has been declared surplus later on and decision was taken to dispose of the same. Considering the highly unprofessional attitude of the DMRL scientists, as exhibited in the instant case, that led to idling of investment to the tune of Rs. 25 lakh, the committee recommend that the matter be looked in to by DRDO with a view to taking appropriate administrative action. The Committee should be apprised of the action taken in the matter within a period of three months.</p>
10.	69	-do-	<p>In the other case, Integrated Test Range (ITR) procured two systems <i>viz</i> Automatic Weather System and Automatic Picture Transmission System at a cost of Rs. 34.16 lakh from a private firm in June, 1988 and February, 1989 respectively which remained idle because the firm failed to install the system. The Committee note that the matter was taken up by ITR with the National Consumer Forum, which gave the verdict in favour of the laboratory in October, 2002</p>

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			<p>and directed the supplier to supply new system of latest specification by April, 2003. The firm however did not supply the equipment despite the verdict by the National Consumer Forum. The matter was subsequently followed up with the firm and when the firm failed to install the equipment, legal action was initiated by ITR. The Committee desire that the matter should be vigorously pursued for expeditious installation of the equipment or realizing adequate compensation for the same.</p>
11.	70	Defence (DRDO)	<p>In the backdrop of the case involving procurement of Automatic Weather and Picture Transmission Systems, the Committee recommend that DRDO in future should refrain from dealing with such firms whose performance is found to be unsatisfactory and, in particular, those against whom DRDO has filed a case in any court of law including Consumer Forum. The Ministry should also consider blacklisting such firms. The Secretary DRDO in a written communication has assured the Committee that the firms, whose performance is found to be unsatisfactory, would be de-registered and would not receive invitation to bid in respect of either limited/open tenders. As regards blacklisting, it has been stated that DRDO presently follows the Government of India, Directorate General of Supply & Disposal procedure. The Secretary, DRDO has also assured the Committee that DRDO does not and will not deal with any firm that has failed to deliver and against whom DRDO has filed a case in any court of law including consumer forums. The Committee desire that the Ministry should stand committed to adhere to the assurance made in principle.</p>
12.	71	-do-	<p>The Committee are constrained to point out that there were delays ranging from 3 to 12 years in disposal of surplus/obsolete machines costing about Rs. 4.71 crore in 3 laboratories namely CVRDE, DRDL and DMRL. The Committee have been given to understand that long delays occurred in disposal of surplus/absolute equipment because the quoted price of the equipment were much lower than the assessed value of the equipment <i>i.e.</i> the Reserved Guiding Price (RGP) fixed by the designated</p>

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			<p>Committee. According to the Ministry, if the highest bid is less than 50% of the RGP fixed, there is no option except to re-float after refixing the RGP as per the present rules. The Committee do appreciate the problems faced by DRDO in this regard. In the face of the fact that equipment could not be sold even at reasonable price, the Committee desire that DRDO should work out a scheme, as suggested by Secretary DRDO, where technical institutions, engineering colleges and IIT institutions can take some of these equipment for imparting training. In the opinion of the Committee, this is judicious proposition for salvaging the best out of surplus/obsolete equipment rather than striving for disposing those at a throw-away price. The Committee recommend that the Ministry should come out with a policy to give effect to the proposal at the earliest.</p>
13.	72	Defence (DRDO)	<p>The Committee note that Material Management Policy of DRDO envisages implementation of a computer based information system to ensure most effective research and development. The Committee have been informed that such a system will be in place by August, 2005. Since Ministry claimed that with the commissioning of information management system, the procurement system in DRDO and other allied arena would be streamlined, the Committee desire that efforts should be made to fructify the project within the stipulated period.</p>
14.	73	-do-	<p>To sum up, since substantial portion of the DRDO budget is spent on purchases of materials, a fool proof procurement planning and effective utilisation of plant and equipment needs to be ensured at laboratories/establishments level to derive maximum value for money. Since availability of equipment is critical for the completion of projectes, this would also ensure timely completion of projects within the projected costs. The Committee feel that identification of surplus item and their disposal has to be made a regular and time-bound exercise to realize optimum sale value. Moreover, machines remaining idle for want of repairs need to be renewed on a regular basis and immediate action taken for their early repairs. Further, creation of a central data</p>

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base of prospective suppliers that is accessible to all the laboratories/establishments needs to be made a prioritised task for avoiding delays in location of reliable supplies. The role of DRDO as a progressively evolving organization rendering invaluable service for achievement of self-reliance in the Defence sector, has always been applauded by the Committee with the present global scenario and prevailing security situation, the role of DRDO assumes greater importance. The Parliament is generous in granting huge sums of money for Research & Development activities. At the same time it expects that value for taxpayers money is achieved and accountability to expenditure is ensured. The Committee, therefore, urge upon DRDO to look into the observations and recommendations made in this report in the right perspective.

PART-II

MINUTES OF THE TWELFTH SITTING OF PUBLIC ACCOUNTS COMMITTEE (2004-2005) HELD ON 19TH JANUARY, 2005

The Committee sat from 1100 hrs. to 1250 hrs. in Committee Room 'E', Parliament House Annexe, New Delhi.

PRESENT

Prof. Vijay Kumar Malhotra — *Chairman*

MEMBERS

Lok Sabha

2. Shri Ramesh Bais
3. Shri Khagen Das
4. Shri Raghunath Jha
5. Dr. R. Senthil
6. Shri Madan Lal Sharma
7. Shri Brij Bhushan Sharan Singh
8. Kunwar Revati Raman Singh
9. Shri K. V. Thangka Balu
10. Shri Tarit Baran Topdar

Rajya Sabha

11. Shri Prasanta Chatterjee
12. Shri Jairam Ramesh

SECRETARIAT

1. Shri P.D.T. Achary — *Secretary*
2. Shri S.K. Sharma — *Joint Secretary*
3. Shri Ashok Sarin — *Director*
4. Smt. Anita B. Panda — *Under Secretary*

Representatives of the Office of the Comptroller and Auditor General of India

1. Ms. Anusua Basu — ADAI (RC)
2. Shri B.K. Chattopadhyay — Director General of Audit (Defence Services)
3. Shri K. Subramanian — Director (R)

Representatives of the Ministry of Defence

1. Shri Ajay Vikram Singh — Defence Secretary
2. Dr. M. Natarajan — Secretary (R&D) and Scientific Adviser to Raksha Mantri
3. Ms. Somi Tandon — Secretary (Defence-Finance)

4. Dr. A.S. Pillai — Chief Controller of Research & Development (R)
5. Shri Sunil Verma — Addl. Financial Adviser (S)
6. Shri B.K. Anand — Director (Budget-Financial Adviser)
7. Shri C.M. Dhawan — Director Material Management (MM)
8. Shri R.K. Chauhan — Director Planning & Coordination (P&C)

2. At the outset the Chairman, PAC welcomed the Members and Audit Officers to the sitting of the Committee. The Chairman informed the Members that the sitting has been convened to take oral evidence of the representatives of the Ministry of Defence on Paragraph 5.1 of the Report of C&AG of India for the year ended 31 March 2003, (No. 6 of 2004), Union Government (Defence Services—Army & Ordnance Factories) relating to "Procurement and Utilisation of Plant and Equipment in DRDO." Thereafter, the representatives of the Ministry of Defence were called. The Committee commenced the oral evidence on the subject. The Members of the Committee sought various clarifications on the points arising out of Audit Paragraph and Advance Information which were duly replied by the representatives of Ministry of Defence.

3. A verbatim record of the proceedings has been kept.

The Committee then adjourned.

MINUTES OF THE SEVENTH SITTING OF THE PUBLIC ACCOUNTS
COMMITTEE (2005-2006) HELD ON 15 JULY, 2005

The Committee sat from 1100 hrs. to 1250 hrs. on 15 July, 2005 in Room No. "139", Parliament House Annexe, New Delhi.

PRESENT

Prof. Vijay Kumar Malhotra — *Chairman*

MEMBERS

Lok Sabha

2. Shri Ramesh Bais
3. Dr. M. Jagannath
4. Shri Brajesh Pathak
5. Shri Madan Lal Sharma
6. Shri Brij Bhushan Sharan Singh
7. Dr. Ramlakhan Singh
8. Kunwar Rewati Raman Singh
9. Shri Tarit Baran Topdar

Rajya Sabha

10. Shri Prasanta Chatterjee
11. Shri R.K. Dhawan
12. Dr. K. Malaisamy
13. Shri C. Ramachandraiah
14. Prof. R.B.S. Verma

SECRETARIAT

1. Shri Ashok Sarin — *Director*
2. Smt. Anita B. Panda — Under Secretary

Officers of the office of the Comptroller and Auditor General of India

1. Shri V.N. Kaul — Comptroller and Auditor General
2. Ms. Mohua Chatterjee — ADAI
3. Smt. Sudha Krishnan — Pr. Director (Direct Taxes)
4. Shri P. Sesh Kumar — Pr. Director (RC)

2. At the outset, the Chairman, Public Accounts Committee welcomed the members of the Committee and Audit Officials. The Committee then took up for consideration

