

**HUNDRED AND FORTY-FIFTH
REPORT**

PUBLIC ACCOUNTS COMMITTEE
(1982-83)

(SEVENTH LOK SABHA)

**DELAY IN DISPOSAL OF FIRED
CARTRIDGE CASES OF HIGH CALIBRE**

MINISTRY OF DEFENCE

Presented in Lok Sabha on 28 April, 1983

Laid in Rajya Sabha on 28 April, 1983

**LOK SABHA SECRETARIAT
NEW DELHI**

April, 1983/Vaisakha, 1905 (Saka)

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Corrigenda to 145th Report of PAC
(7th Lok Sabha) on Delay in Disposal
of Fired Cartridge cases of High
Calibre.

<u>Page No.</u>	<u>Para No.</u>	<u>Line</u>	<u>For</u>	<u>Read</u>
(iii)	-	Last line	Shri A.P. Janardhanan	Shri A.P. Janardhanam
(v)	4	6	Factory 'B'	Factory 'P'
(vi)	-	Last line	ed	placed
7	-	32	trials	trials
9	1.21	1	various	from various
20	1.46	1	surprise	surprised
21	1.52	2	Initially	initially
24	1.45	Last line	to avoid	avoid
28	1.53	6	shortly. As the trade is	in January 1983 and the

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PART II*

Minutes of the sittings of Public Accounts Committee held on :

20 December, 1982

20 April, 1983

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(1982-83)

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INTRODUCTION

1. The Chairman of the Public Accounts Committee as authorised by the Committee, do present on their behalf this 145th Report of the Committee on paragraph 38 of the Report of the Comptroller and Auditor General of India for the year 1980-81, Union Government (Defence Services) on Delay in disposal of fired cartridge cases of high calibre relating to the Ministry of Defence.

2. The Report of the Comptroller and Auditor General of India for the year 1980-81, Union Government (Defence Services) was laid on the Table of the House on 5 April, 1982.

3. This Report deals with the accumulation of huge stock of about 5,449 tonnes of fired cartridge cases valuing Rs. 13 to 14 crores. In this Report the Committee have commented upon the delay of more than 7 years in taking action regarding disposal of these cartridge cases. The fired cartridge cases had been accumulating prior to September 1973 and it was only as late as August 1980 that the decision was taken to dispose of types 'B' and 'C' fired cartridge cases locally while reformable type 'A' cases were to be sent direct to factory 'R' for reforming.

4. The Committee have expressed their concern over the fact that six precious years were lost in carrying out trials and coming to some definite conclusion. The Committee find that in 1972 the Director Ordnance Services took up with the Director General, Ordnance Factories the possibility of utilisation of the silicon bearing cartridge cases for the manufacture of new cartridge cases and accordingly trials were conducted at Factory 'B' during 14 April 1972 to 19 October, 1972. However, the AHSP refused to give 'carte Blanche' for the use of silicon brass for the manufacture of various types of cartridge cases in use with the services and it took more than 2 years in pursuing the AHSP even to write to D.G. for further trials. Ultimately these cartridge cases were proof fired in 1978.

5. As at least Rs. 50 crores worth of scrap was stated to be lying in various defence installations at the end of the year 1981, the Committee expect that the standing committee on material conservation would be able to recommend measures for early segregation, processing and re-use or sale of the different types of metal scrap generated by the ordnance factories and other defence establishments so as to facilitate their disposal/ utilisation in the best possible manner.

6. The Public Accounts Committee (1982-83) examined paragraph 38 at their sitting held on 20 December, 1982. The Committee considered and finalised this Report at their sitting held on 20 April, 1983. The Minutes of the sitting form Part II* of the Report.

7. The Committee would like to express their thanks to the Ministry of Defence etc. for the cooperation extended by them in giving information to the Committee.

8. The Committee also place on record their appreciation of the assistance rendered to them in the examination of this paragraph by the office of the Comptroller and Auditor General of India.

NEW DELHI;
April 22, 1983.

Vaisakha 2, 1905(S).

SATISH AGARWAL
Chairman,
Public Accounts Committee.

*Not printed. One cyclostyled copy laid on the Table of the House and five copies. ced in the Parliament Library.

REPORT

Delay in disposal of fired cartridge cases (of high calibre)

Audit Paragraph:

1.1 An examination of the position regarding disposal of fired cartridge cases of high calibre revealed that three types 'A' 'B' and 'C' (of foreign manufacture) had been accumulating in various ammunition depots prior to September 1973. Efforts made by the Director General, Ordnance Factories (DGOF) to utilise the brass scrap of these fired cartridge cases in the manufacture of cartridge cases of indigenous ammunition did not succeed on account of their having silicon as reported by ordnance factory 'P' in October 1973. A Command Head-quarters (HQ), therefore, requested (November 1973) the Director of Ordnance Services (DOS) at the Army HQ for an early decision regarding clearance of the huge stock of these cases.

1.2 The DOS decided (August 1976) that high calibre cartridge cases would be stored centrally in covered accommodation at ammunition depot 'X'. For this purpose the Command HQ were advised (September 1976) to make out an intake plan of ammunition depot 'X'. Accordingly, 6.96 lakh fired cartridge cases (5,102 tonnes) consisting of 2.31 lakh type 'A' (2,612 tonnes), 2.58 lakh type 'B' (2,117) tonnes) and 2.07 lakh type 'C' (373 tonnes) were backloaded and received in ammunition depot 'X' during October 1976—March 1978 and an expenditure of Rs. 4.13 lakhs was incurred on freight, handling, etc.

1.3. Although it was known that the fired cartridge cases contained silicon, instructions were issued (May 1977) by the DOS to issue fired cartridge cases of types 'B' and 'C' to ordnance factories 'P', 'Q' and 'R'. Factories 'P' and 'Q' intimated (June 1977) ammunition depot 'X' that the subject cartridge cases were not required for their use or were not suitable due to high silicon content. Factory 'R' also declined (June 1977) to accept these cartridge cases as it was in the initial stages of re-utilisation trials.

1.4. In July 1977, the DOS instructed ammunition depot 'X' to issue 17,000 cases (about 200 tonnes) of type 'A' to factory 'R' for 'reforming

trials' but it could accept only 2,060 numbers (about 23.4 tonnes) as its requirements were for freshly fired cases without dents or damage so that reforming could be economical and effective with less effort. Based on these requirements, the Command HQ estimated (March 1978) that only 30 per cent of the holding of fired cartridge cases of type 'A' in ammunition depot 'X' was likely to be selected by factory 'R' for re-utilisation purposes.

1.5 Consequent of refusal by factories 'P' and 'Q' to accept fired cartridge cases of types 'B' and 'C' and factory 'R' being interested only in reformable type 'A' cases, it was decided (August 1980) by the DOS that:

- non-reformable cases of type 'A' and cases of types 'B' and 'C' be disposed of locally by the depots in the normal manner instead of being despatched to ammunition depot 'X'; and
- reformable cases of type 'A' be sent direct to factory 'R' by various ammunition depots.

1.6 A further quantity of 1,719 tonnes (type 'A': 771 tonnes; type 'B' 800 tonnes and type 'C': 148 tonnes) of fired cartridge cases accumulated at ammunition depot 'X' during April 1978—September 1980 and an expenditure of Rs. 1.39 lakhs was incurred on their back-loading from various ammunition depots.

1.7 As on 31st December 1980, ammunition depot 'X' was holding centrally 8.58 lakh fired cartridge cases of 3 types (5.976 tonnes) valued at Rs. 14 to 15 crores.

1.8 The Ministry of Defence stated (September 1981) that the fired cartridge cases were stocked centrally in ammunition depot 'X':

- to attract purchasers having capability to pay higher prices for the bulk purchases in the auction;
- to relieve congestion in the various ammunition depots and to make available storage space for service ammunition; and
- to feed factory 'R' being closer to ammunition depot 'X' with these cartridge cases.

1.9 The Ministry added (November 1981) that 0.54 lakh fired cartridge cases (527 tonnes) were auctioned in March and July 1981 at the sale rates of Rs. 24,940 (type 'A'), Rs. 24,830 (type 'B') and Rs. 24,560 (type 'C') per tonne realising a sum of Rs. 1.24 crores and that the entire holding (5,449 tonnes) valued at Rs. 13 to 14 crores presently held with the depot was being auctioned through the Director General, Supplies and Disposals as no local bidder would be capable of taking such huge tonnage.

1.10 The case thus revealed that:

- without first exploring the utilisation of fired cartridge cases of three types either from the DGOF or any outside agency, instructions were issued to store them centrally at ammunition depot 'X' thereby resulting in an infructuous expenditure of Rs. 5.52 lakhs in respect of types 'A' 'B' and 'C' (6821 tonnes) towards freight, handling, etc.; and
- a huge stock of about 5,449 tonnes of fired cartridge cases (valued at Rs. 13 to 14 crores) had accumulated for over 7 years, disposal of which was yet (November, 1981) to be made.

[Paragraph 38 of the Report of the Comptroller & Auditor General of India for the year 1980-81 Union Government (Defence Services)]

1.11 The Audit Paragraph points out that 3 types of fired cartridges cases of high calibre had been accumulating in various ammunition depots prior to September, 1973. During evidence before the PAC in December, 1974, the Master General of Ordnance Branch had stated that fired cartridge cases of high calibre were being accepted by the Director General of Ordnance Factories. Asked as to how the accumulation of these fired cartridge cases occurred prior to September, 1973 when these cases were being accepted by the DGOF, the Ministry of Defence have stated in a note:

“Since the DGOF was accepting fired cartridge cases of other than “M” stocks of “M” (type A, B, and C) fired cartridge cases accumulated at the depots prior to September, 1973. At a meeting held in the office of the JS(O) on the 21st April, 1972 it was decided that cartridge cases of type ‘A’ would henceforth be reformed with a view to re-utilising them in fresh production of this type of ammunition. This was subject to successful completion of trial reforms.”

1.12. Asked about the circumstances in which the Ordnance factories stopped accepting these fired cartridges, the Ministry of Defence stated in a note:

“...despatch of fired cartridge cases of “M” to ordnance factories was stopped for the following reasons:

- (i) to explore possibilities of reforming cartridge cases of type ‘A’ for re-utilising in fresh production of ammunition.

- (ii) because of negotiations with National Small Industries Corporation for the sale of fired cartridge cases of types 'B' and 'C'.

1.13 In a subsequent note, the Ministry have added that "the supply of cartridge cases type 'A' to DGOF has not been stopped at any stage as reformable ones are still being sent. The supply of cartridge cases of type 'B' and 'C' was stopped in March 1974 on receipt of information that these cartridge cases were not acceptable to the DGOF for re-melting or reforming."

1.14 It was stated by the Master General of Ordnance Branch (MGO) in their letter dated 1 February 1972 that since DGOF was not prepared to undertake reforming of fired cartridge cases of foreign origin, all types of these cartridge cases (brass/steel) except type 'A' cartridge cases should be disposed of in the normal manner. Again in his letter dated 5 March 1974 all headquarters of various Commands were informed by MGO that the fired cartridge cases which were not acceptable to the DGOF might be disposed of in the normal manner viz. fired high calibre cartridges cases of brass of "M" which are not reformable, fired high calibre cartridges cases of steel which are not reformable and fired cartridges cases of SAA of steel. The Ministry of Defence have informed the Committee in this regard that "the Command Headquarters passed on the above instructions to Depot concerned and resultantly they disposed of a quantity of 54,475 East European origin fired cartridge cases through public auction." However, the Army Headquarters had, on 27 March, 1974, issued instructions to all their Commands to suspend the disposal of the fired high calibre cartridge cases of brass of "M" only which were not reformable as National Small Industries Corporation, Ltd., New Delhi had expressed their desire to purchase the same.

1.15 The Committee enquired why instructions were issued in May 1977 to issue fired cartridge cases of type 'B' and 'C' to ordnance factories 'P', 'Q' and 'R' when it was known to the Directorate of Ordnance Service, that these cases contained silicon as brought out by ordnance factory 'P' in October 1973 and whether this decision was based on any request received from these factories. The Ministry of Defence have stated:

It was decided in Secretary [(Defence Production) Meeting held on the 15th January, 1977 that 'B' and 'C' type cartridge cases would be accepted by the Ordnance Factories for their own consumption and hence these cartridge cases were not to be disposed of. Based on the decision taken in this meeting necessary instructions were issued to all concerned by the Army Headquarters/OS Directorate.

“...No request was received from the Ordnance Factories direct.. The cartridge cases were issued at the request of the DGOF who was aware of the silicon content in the cartridge cases.”

1.16 In a further note dated 11 November, 1982 the Ministry of Defence have added:

“...After receipt of nil requirements of type ‘B’ and ‘C’ fired cartridge cases from Ordnance Factories, ‘P’, ‘Q’ and ‘R’ the Army Headquarters again took up the matter with the DGOF with the request to issue instructions insisting upon the Factories to accept these cartridge cases from the Ammunition Depot, ‘X’ and forward their requirements to the Depot. since no instructions were issued by the DGOF, the matter was reported to the Secretary (DP) in October, 1977 for disposal instructions in consultation with the DGOF. The case was regularly pursued till February 1980, when at the Production Review Meeting held on the 11th February 1980, the DGOF categorically stated that these cartridge cases should be disposed of in the normal manner.”

1.17 It has been pointed out by Audit that it was decided in August 1976 that high calibre cartridge cases would be stored centrally in cover accommodation at ammunition depot ‘X’ Accordingly 5102 tonnes of fired cartridge cases were back loaded and received in this depot during October 1976 to March 1978 after incurring an expenditure of Rs. 4.13 lakhs on freight; handling etc.

Asked as to why the fired cartridge cases were kept stored at ammunition depot ‘X’ even after 16 January 1977 i.e. the date on which the signal was received from the DGOF for despatching the cartridges of ‘B’ and ‘C’ types to factories ‘P’, ‘Q’ and ‘R’ the Ministry of Defence have stated:

“Since the requirements received from all the factories were nil, none could be sent to the factories. The Army Headquarters had decided to store the cartridge cases centrally till a final decision had been taken regarding the mode of their disposal.”

1.18. The Audit para points out that it was brought to notice by Factory ‘P’ in October, 1973 that the fired cartridge cases contained silicon. However it was only on 21 July 1980 that a decision was taken to the effect that the silicon shells of type ‘A’ which were being taken for reforming should only be kept aside and the balance scrap should be

disposed of. Asked about the reasons for taking about 7 years in taking the above decision, the Ministry of Defence have stated in a written note:

“The Cartg. Cases of “M|N” contain Silicon as an alloying element in the specified range of 0.45 to 0.75 per cent.

Ordnance Factories manufacture various other types of cartg. cases to specifications of a foreign country ‘K’ which do not allow the use of Silicon in the 70|30 Brass specified as the basic material. Silicon is permissible only to the extent of 0.005 per cent as an impurity as laid down in the relevant specifications governing the use of this material. On account of this restriction on the percentage of silicon, the Fired Silicon-bearing cartridge cases can not be utilised as scrap for manufacture of these cartg. cases. Further-more, the scrap bearing Silicon can not be melted in the same shop in which silicon-free material for manufacture of Cartridge Brass for the ultimate production of these Artillery Cartridge Cases and Small Arms Ammunition is produced, for fear of contamination, as it would be difficult to distinguish the two types of process scraps that would arise.

The DOS took up with the DGOF the possibility of utilisation of these cartridge cases in 1972. Since the plant facilities for either fresh manufacture or reforming of type ‘A’ cartg. cases were non-existing in the Ordnance factories, it was decided by the DGOF to conduct certain preliminary trials for the manufacture of new cartg. cases using silicon bearing material. Trials were conducted at Factory ‘P’ (14-4-72 to 19-10-72) by melting of certain percentage of silicon-bearing fired cartridge cases of ‘M’ origin, for the manufacture of another type of ammunition cartg. cases, which, was a regular item of brass cartg. case manufactured at actory ‘P’. Though the trials were successful from the manufacturing point of view, the AHSP refused to give “Carte Blanche” for the use of silicon-brass in the manufacture of various types of cartridge cases in use with the services and under current manufacture in Ordnance Factories and insisted that the process lines should be scrupulously kept separate to avoid a mix-up with the other non-silicon bearing brass materials. Factory ‘P’ therefore, approached the DGOF (27-6-73) to suitably prevail upon AHSP for permission to use silicon-bearing scrap. The DGOF took up the matter with AHSP for permission to use silicon-bearing scrap (24|25-3-75). AHSP informed (6-6-75) that permission could not be granted without restric-

tions. The matter was again taken up with AHSP (4-7-75) with copies to Director P&C and DGI explaining the whole case and requesting for permission for the use of silicon-bearing scrap in the manufacture of cartg. cases. The AHSP referred the case to DGI (27-8-75) recommending trials. The proposal for trial was agreed to by DGI (20-10-75).

The matter was discussed in the Raksha Utpadan Board Meeting on the 25th and 26th November, 1976 and the following decisions were taken:—

- (a) The DGOF would reform 500 Nos. of Type 'A' fired cartridge cases. For this purpose he would require 500 cartg. cases washed immediately after practice firing as per instructions already issued by the DOS. The cartg. cases were to be despatched to Factory 'R'. Detailed despatch advice including packing and marking instructions would be intimated by the DGOF to the DOS.
- (b) The DGOF would also roll an experimental batch of brass sheets to "N" specifications from fired Type 'A' cartg. cases. These sheets would be formed into Type 'A' cartg. cases for trial lot. For this, he would require 5 tonnes of Type 'A' cartg. cases which were held in the DOS stock."

Pursuant to these decisions in the RUB meeting of November 1976 trial manufacture of another type of Cartg. cases was undertaken using Silicon-Brass fired cartg. cases. These cartg. cases were proof fired in 1978 and did not show any abnormality. However, the problem of keeping separate lines of production for the OF cartg. cases and Small Arms Ammunition cartg. cases remained as no separate facilities were set up for processing of silicon brass scrap.

Reforming of Cartridge Cases

Pursuant to the decision taken in RUB Meeting of November 1976, it was decided to conduct trails for reforming of type 'A' cartridge cases only. Cartridge cases for reforming were despatched by depots as early as 1976-77 onwards and issue of reformed cartg. cases started from the year 1977-78. Reforming had necessarily to be done only in the new type 'A' cartridge case shop at Factory 'R' which was set up as a New Project. The manufacturing facilities became fully operational only during 1979.

Summarising, it may be observed that the Ordnance Factories made vigorous efforts right from the year 1973 onwards for the utilisation of fired cartridge case of "M" but they could not be utilised by remelting on account of their Silicon content."

1.19. The Audit paragraph points out that in July 1977, the Director of Ordnance Services instructed ammunition Depot 'X' to issue 17000 (about 200 tonnes) of type 'A' of fired cartridge cases to factory 'R' for reforming trials, but it could accept only 2060 number (about 23.4 tonnes) as its requirements were for freshly fired cases without dents or damages so that reforming could be economical and effective with less effort. The Committee wanted to know as to when the trials were actually conducted and whether these trials proved successful and economical. The Ministry of Defence have stated:

"Reforming trials of these 2060 nos. of fired cartridge cases received by Ordnance Factory 'R' during the period 7-9-1977 to 23-11-1977 were conducted in the end of 1977|early 1978 and proof samples from the concerned lot were despatched to a proof establishment on 14-2-1978. Proving was successful and yield was 66.6 per cent. From January, 1981 onwards 16,967 nos. of fired cartridge cases were accepted by Ordnance Factory 'R' for reforming operations."

1.2. Asked as to why the ordnance factory accepted 2060 cases only against its demand of 17000 cases, the Ministry of Defence have replied:

"17000 numbers of fired cartridge cases of type 'A' were released for Factory 'R' but only 2060 numbers were collected by the Factory due to shortage of storage space and the low target of production during 1977-78."

1.21. Consequent on refusal by factories 'P' and 'Q' to accept fired cartridge cases of types 'B' and 'C' and factory 'R' being interested only in reformable type 'A' cases, it was decided by the Director of Ordnance Services in August 1980 that non-reformable cases of type 'A' and cases of types 'B' and 'C' be disposed of locally by the depots in the normal manner instead of being despatched to ammunition depot 'X' and reformable cases of type 'A' be sent direct to factory 'R' by various ammunition depots. When asked about the total quantity of fired cartridge cases of type 'A' sent to the ordnance factory 'R' during the period September, 1980 to April, 1982 and the quantity processed, the Ministry of Defence have replied in a note:

"During the period September, 1980 to April 1982, 70,290 numbers (783.35 tonnes) of reformable (type 'A') fired cartridge

cases were sent to Ordnance Factory 'R' various ammunition depots. During the period May 1980 to April 1982 43,500 numbers of reformable fired cartridge cases (type 'A') were processed giving yield to 20,000 numbers of acceptable cases."

1.22. In a further note, the Ministry have furnished the following details of receipt, acceptance, rejection, etc. of the reformable cartridge cases:

"Receipt from Depots

Year	Quantity
1976-77	350 nos.
1977-78]	3,180 ,,
1978-79]	1,130 ,,
1979-80	18,236 ,,
1980-81]	66,324 ,,
1981-82	4,035 ,,
1982 (3/82 to 8/82)	12,590 ,,
Total quantity received	1,05,845 Nos.
Quantity Reformed and accepted	49,896 Nos.
Quantity Rejected	24,948 Nos.
Quantity available in hand	31,011 Nos.
(As on 15-9-1982)	

1.23. Explaining the position regarding utilisation of the fired cartridge cases, Member, Ordnance Factories Board stated in evidence:

"About the utilisation of the fired cartridge cases there are two systems—one is by remelting and using for fresh manufacture and another one is by reforming of those cartridge cases which are now in the current production. Now, in remelting we made some attempts. We found that silicon is one of

the constituents which is not permissible under the current specification under which we are making cartridge cases in ordnance factories. So, that attempt made initially to utilise it directly in the ordnance factories did not yield any positive results and secondly when we found it useful we also made an attempt to get it bartered from trade for material to our specification. . . . that was not successful. First we melted it then we found it will not be useful for production purposes. That refers to type 'B' and 'C' fired cases. Another one is type 'A' cartridge cases for which the Government sanctioned a project for manufacture of the new cartridge cases which was commissioned in 1979-80. So, as soon as it was commissioned we started taking the type 'A' fired cartridge cases of reforming. We found that all the cartridge cases which are lying in depot are not suitable for reforming. Some have got damages and dents which are beyond repair. So with the initial experience of reforming of these cartridge cases, we learnt which one to use for reforming and in 1980 we gave them a complete guideline for selecting those cartridge cases we will take from depot and we will reform them. Uptill now we have received about 1,05,845 such cases from the depot for reforming, of which we have processed and got accepted 49,896 numbers."

The witness further stated:

"Now from the value of the 1,05,000 which we have reformed, as per the production value of 1981-82 we have reformed cartridge cases to the extent of Rs. 2.81 crores worth which otherwise we would have manufactured from fresh materials. So, this is the gain which we have got from reforming type 'A'. We will continue to reform but after segregating the reformable type and the non-reformable type. Of course, the D.O.S. will take the general course for disposal of type 'A' fired cases not found suitable for reforming."

1.24. The witness added that the reforming of fired cartridge cases could be done only in Ordnance Factory 'R' where they had installed a plant in 1979-80. Enquired about the full details in regard to the above plant, the Ministry of Defence have furnished the following note:

"Estimate and final costs

The plant for the manufacture of new cartridge cases for type 'A' ammunition has been erected at Factory, 'R'. The informa-

tion asked for in respect of the type 'A' cartridge case plant is furnished seriatim:

Head	Estimated cost (Rs. in lakhs)	Final* (Rs. in lakhs)
(i) Plant & Machinery	529	495.38
Civil Works.	95	95.06
TOTAL	624	590.44

*Final cost has not yet been arrived at as certain payments are yet to be made. The figure is on the basis of order value.

- (a) Time of completion originally envisaged: October 1977.
- (b) Date of actual commissioning: February 1978.
- (a) Reasons for cost overrun: There has not been any cost overrun so far.
- (b) Reasons for time overrun:

There was a slippage of 5 months on account of delay in receipt of power pack for induction annealing equipment. The power pack is an equipment required for energising the induction heating equipment for annealing the cartridge cases. The contract for the supply of the induction heating equipment was concluded with the licensors on 14-12-72 and the delivery period was 17 months. The heater was received in November 1974.

Only after receipt of the equipment at the site, it came to light that it did not include the power pack. Since the suppliers did not provide details of the equipment in the draft contract, it was not possible to verify whether in the terminology used by them the supply of the heater was without the vital power pack equipment. Persuasion to supply the power pack within the scope of the contract having failed there was no other alternative but to procure the power pack separately from the trade after locating the source of supply.

Total capacity: 60,000 Cartridge Cases per annum in 1×2 hour shift.

(a) Actual performance:—year-wise;

Year	Type 'A' Cartg. Case (New)	Type 'A' Cartg. Case (Reformed)	Type D Case	Type E Case	Type B Case
1977-78	415	1,296	Nil	Nil	1,500
1978-79	Nil	1,000	6,000	Nil	Nil
1979-80	Nil	8,600	5,000	26,000	..
1980-81	450	14,000	Nil	36,000	..
1981-82	7,050	16,000	Nil	2,000	..
1982-83 (Upto Dec. 1982)	9,210	18,000	Nil	Nil	..

(b) Reasons for shortfall, if any:

There was no shortfall as such. However, type 'A' Cartridge Cases were not produced in bulk since matching shells were not available due to some problems at the Shell Forging Plant at an Ordnance Factory.

Capacity to reform the used Cartridge Cases: The plant installed is intended to manufacture new type 'A' cartridge cases and as such the capacity of reforming fired cartridge cases was not taken into consideration while formulating the project, nor was any such assessment carried out at a subsequent date. Certain facilities are common to reforming/new production and can be utilised as required. Reforming of fired cartridge cases will, however, result in the scaling down of the production capacity of new cases proportionately."

1.25 When the Committee desired to know the latest stock position of fired cartridge cases held in ammunition depot 'X' and other depots and the value thereof, the Ministry of Defence have stated:

"Holdings of fired cartridge cases of East, European origin as on 30th June 1982

Holdings at Ammunition Depot 'X'

Item (Type)	Holdings in Nos/Tons		Value
	Nos.	Tons	
Type 'A'	189563	2142.062	Rs. 56869800.00
Type 'B'	312,274	2685.566	Rs. 71823020.00
Type 'C'	309424	509.179	Rs. 13305232.00

Item (Type)	Holdings Nos.	In Tons	Value
Holdings in other depots.			
Type 'A'	27743	316.447	Rs. 8360924.00
Type 'B'	5918	51.982	Rs. 1344150.00
Type 'C'	4253	11.439	Rs. 281789.00

1.26 As 1,89,563 fired cartridge cases of type 'A' (2142.062 tonnes) were stored at ammunition depot 'X' and another 27.743 cases (316.447 tonnes) were held in other depots, the Committee desired to know whether these cases were reformable and if so, whether any time bound programme had been drawn for reforming these cases. In reply, the Ministry of Defence have stated:

"All the fired type 'A' cartg. cases stored in the Ammunition Depot 'X' are not reformable. Consequently, to assess the suitability or otherwise of these cases for reforming, a Technical Team, consisting of an Officer each from Ordnance Factory 'R' and Inspectorate of Metals, . . . visited the Depot in March 1980 and laid down norms for identification selection of these cartridge cases for despatch to Factory 'R' for reforming.

The programme for the issue of reformable cartridge cases is as follows:

1982-83	1983-84	1984-85
40,000 Nos.	30,000 Nos.	10,000 Nos.

1.27. The Committee desired to know the reasons for not transferring the technical know-how developed by Ordnance Factory 'R' for reforming fired cartridge cases to other ordnance factories. The Ministry have replied:—

"The question of transfer of technical know-how does not arise as only the Ordnance Factory 'R' is equipped for manufacture of type 'A' cartridge cases."

1.28. Enquired as to why auction could not be held at the depots where fired cartridge cases were lying instead of storing them at a central place, the Ministry gave the following reasons:—

- (a) to prevent deterioration in the open/tentage accommodation in the forward depots;
- (b) to relieve the congestion in Ammunition Depots and make available storage space for service ammunition;
- (c) as a safeguard against pilferage/theft;
- (d) adequate covered accommodation was not available in other depots;

- (e) to conveniently feed a particular ordnance factory when the time came for reforming/reutilising; and
- (f) to facilitate obtaining better prices at the time of auctions, if need be."

1.29. However the Secretary, Ministry of Defence stated during evidence that 'currently, the surpluses are being auctioned from wherever they are available.'

1.30. One of the reasons given by the Ministry of Defence for stocking fired cartridge cases centrally in Ammunition Depot 'X' was to feed the Ordnance Factory 'R' which was close to the depot. Since Factory 'R' was interested in reformable type 'A' fired cartridge cases only, the Committee wanted to know whether the feasibility of utilisation of these cases was explored before the issue of instructions by the Director of Ordnance Services in September, 1976. In their reply, the Ministry of Defence stated:

"As per decision arrived at in the meeting held in the Office of JS(O) on 21-1-1972, disposal of fired cartridge cases (type 'A') was stopped with a view to reforming or reutilising these cases in fresh production. During the period January 1972 to November 1976, till a decision to start reforming trials was taken in the 15th Raksha Utpadan Board meeting (held on 25 & 26-11-1976), the feasibility of utilisation of fired cartridge cases by various authorities was explored at the highest level."

1.31. According to the Ministry, the decision to stock fired cartridge cases centrally at Ammunition Depot 'X' was taken (August 1976) *inter-alia* to attract purchasers having capability to pay higher prices for the bulk purchases in the auction. As stated by the Ministry (September/November, 1981) the entire holding of 5,449 tonnes of fired cartridge cases valued at Rs. 13-14 crores with this Depot was, however, now being auctioned through the DGS&D as no local bidders would be capable of taking such huge tonnage. Since these fired cartridge cases continued to accumulate for a period of more than 7 years from 1973 onwards, the Committee enquired why it was not considered expedient to dispose them of through DGS&D prior to September-November, 1981. The Committee also wanted to know the specific steps taken by the Ministry to liquidate the stock of fired cartridge cases between 1973 and 1981. In reply, the Ministry of Defence have stated as under:

"The disposal of fired cartridge cases through DGS&D prior to September-November 1981 was not considered because of the following developments:

The disposal of type 'A' fired cartridge cases was stopped in January 1972 with a view to reforming or reutilising these cases in fresh production. Disposal of type 'B' & 'C' cartridge cases was banned in March 1974 as negotiations were being made to sell these cartridge cases to National Small Industries Corporation. Consequent to this on 25 and 26th November 1976 in the 15th Raksha Utpadan Board Meeting it was decided that the DGOF would reform 500 cartridge cases and also roll out an experimental batch of brass sheets to 'N' specifications from these cartridge cases for a trial lot. For this purpose, the required quantity of cartridge cases type 'A' was supplied to Ordnance Factory 'R'.

Since the progress on reforming and reutilising of cartridge cases was slow, the matter was referred to Secretary (DP) by Army Headquarters at an appropriate level and a meeting was held on 12-1-1979 in the office of Joint Secretary (F) during which Addl. DGOF stated that they planned to produce approximate 90,000 cartridge cases in the next year and based on this estimate approximate 1500 tonnes of cartridge cases of type 'A' would be lifted by them during the next year. On 1-2-1979, Secretary (DP) was requested either to increase the rate of intake by DGOF or alternatively dispose of a portion of silicon brass through salvage. Simultaneously the DGOF was also requested to nominate the factory where these cartridge cases were to be despatched. Consequently, a decision was taken in the production Review meeting held on 11-2-1980 that DGOF should give guidelines for selection of reformable type 'A' cartridge cases.

Based on the above guidelines, the depots started selecting reformable cartridge cases and despatching these to factory 'R'. However, the final decision regarding disposal of other 'M' cartridge cases (type 'A' non-reformable, type 'B' and type 'C') was arrived at in the Secretary (DP) meeting held on 21-7-1980 wherein it was ruled that the silicon shells of type 'A' which were being taken for reforming should only be kept aside and the balance scrap should be disposed of in the normal way. Accordingly instructions were issued by Army Headquarters on 25-8-1980 to all concerned to take necessary disposal action on non-reformable 'N' fired cartridge cases.

It will be seen from above that right from the beginning the matter was being progressed at the highest level for early disposal of these cartridge cases.

1.32 Asked whether the DGS&D has since been approached for auction of the balance stock valued at Rs. 13 to 14 crores held at Ammunition Depot 'X', the Ministry have stated:

"DGS&D has since been approached for auction of balance stock. Necessary DGS&D Forms A-I have been forwarded to the DSD, Bombay, in October, 1981 and the case is being actively progressed. An auction was conducted by DSD, Bombay on 23-6-1982 for disposal of cartridge cases. Nothing could be disposed of due to low bid by the bidders. Further attempts will be made by DSD, Bombay to dispose of the stock."

133. The Committee desired to know whether the return was more in auction or in disposal through tenders. In reply, the representative of the Ministry stated in evidence:

"We have also made attempts to dispose of by tender and we have observed that in the tenders the rates received are lower than what we have obtained in the case of auction."

1.34 Asked about the basis on which the reserve price for disposal of fired cartridge cases was fixed, the DDG, DGS&D deposed:

"The rates given in the Economic Times and Financial Express are taken into account. We also take into account other factors like impurities, transportation etc. We give certain discretion to the supervising team so that we may sell if we get the rate within that limit."

1.35 To a question whether the price obtained was somewhat lower than the market price of ingots of brass or copper, the witness stated:

"It depends upon the individual items. In the case of cartridge the most disturbing element is silicon. It is very difficult for the trade to separate silicon. The extraction cost is very high. We are getting about 15 to 20 per cent less than price of the components."

1.36 Regarding disposal of the fired cartridge cases the Secretary, Ministry of Defence stated in evidence:

". . . We have been followed up with the DGS&D regarding the disposal of these accumulated cartridges. He has held a number of auctions of late."

1.37 In this connection, the Deputy Director General, DGS&D stated:

"...there are three categories—types 'A', 'B' and 'C'. Total quantity was 7,51,818 out of which 3,92,818 have been disposed of and 3,59,000 are under consideration. Now we have made already 8 attempts including one in tender. The quantities already sold are those which were taken up in the seven auctions. Apart from this in tender we have got 1,53,000 and 1,34,000 numbers under consideration. We are including the entire residual in the next auction in the second week of January and let us hope that we will be able to dispose of."

1.38 Asked about the latest position regarding the sale of the remaining 3,59,000 fired cartridge cases, the Ministry have stated in a note:

"Out of remaining 3,59,000 quantity of fired cartridge cases, 50,600 have been sold during January 1983 through public auctions and the auction of for a further quantity of 1,58,000 has been planned for the 25th February, 1983. The balance quantity of 62,400 Nos. is proposed to be auctioned off in March 1983 alongwith the rejections of the February, 1983 lot, if any."

1.39. In para 1.29 of their 121st Report (5th Lok Sabha), the Public Accounts Committee had recommended the setting up of a Metal Bank or Clearing House so that it could be ensured that the metal specially non-ferrous, rendered surplus or unfit for a particular use in one organisation can be profitably utilised elsewhere without being disposed of at a loss.' This recommendation was reiterated by the Committee in para 2.43 of their 229th Report (5th Lok Sabha). In January, 1978 the Ministry of Defence informed the Public Accounts Committee that instead of a 'Metal Bank' a Central Coordination Committee had been constituted for coordination/disposal/re-utilisation of scrap. The Coordination Committee had been directed to evolve a system for dissemination of necessary information regarding availability of various kinds of scrap to serve the purpose of 'Clearing House' and the committee would later on also take action for setting up of Metal Bank (s), if considered necessary. Asked about the latest position in this regard, the representative of the office of the Director General, Technical Development stated during evidence:

"This suggestion was considered by the Secretaries Committee. Due to the small surplus available and the cost involved in

transport, storage etc. in setting up a metal bank, it was felt that it was not feasible to set up the metal bank. Instead of that, they have decided to set up a Standing Committee on Material Conservation, which went into all the aspects of material conservation, including scrap. A study of this subject was entrusted to the National Productivity Council, which had given the report on copper, zinc, aluminium and lead. This report was accepted and sent to the Government departments to take further action in the matter."

1.40 The Committee desired to know the total amount of scrap available with the Ministry of Defence. The Secretary of the Ministry stated during evidence:

"There are certain items which get disposed of without much delay, because they have a ready market. There are many other items which are difficult to dispose of and tend to get accumulated for one reason or the other. We have taken stock of it. We were rather disturbed about the large accumulations and we had made a recommendation to DGSD. We had a meeting on this. We had requested that a Standing Committee should be set up, where everybody concerned should get represented, to monitor the disposal of these accumulated stocks of various varieties and to be able to take a decision of what new methods should be followed, how much discount in the book value should be accepted for easy disposal and so on."

1.41 Enquired about the stocks of scrap available at the end of the year 1981, the witness stated that 'I do not have the exact figures with me here but in terms of value it would be Rs. 50 crores. This is the total value of all varieties of stocks to be disposed of.'

1.42 The Ministry of Defence have in a subsequent note informed the Committee that the Standing Committee on Conservation as suggested by the Committee of Secretaries has been set up. The following are the terms of reference of Standing Committee on Material Conservation:

"(a) To undertake or organise specialised studies on the pattern of availability and consumption of industrial raw materials and to evaluate production practices for identifying the industrial wastes which have scope for recycling and re-utilisation. These studies will be made by utilising the services of organisations like National Pro-

ductivity Council, Consultancy Organisations and management institutes to the extent necessary.

- (b) To recommend measures for segregation, processing and re-use of different categories of non-ferrous and ferrous metal scrap and industrial wastes and to draw action plans and guidelines for implementation.
- (c) To identify the requirement of technology and developmental facilities for above purpose and to oversee the progress of their establishment.
- (d) To draw up appropriate schemes for maximisation of the efficiency of utilisation and to evolve norms of consumption for different end-uses, and to promote inter-material substitution and development of alternative materials.
- (e) To evolve a suitable machinery for collection of data and dissemination of technical information on various aspects of material conservation.
- (f) To undertake specialised field studies on efficient utilisation of materials and for the development of improved types of equipments for scrap and waste processing and utilisation."

1.43 Asked if the National Small Industries Corporation had been approached in this regard, the Secretary, Ministry of Defence replied:

"If you permit me to say, much of the accumulation that we have referred to arose because of this thought that we should go to the NSIC for disposal. The Government took a view that this not a practical proposition. So, my submission is that the best experience is to keep the NSIC out of it."

1.44. The Audit para has brought to light a case of accumulation of a huge stock of about 5,449 tonnes of fired cartridge cases valuing Rs. 13 to 14 crores. Disposal action with regard to these cartridge cases was delayed for over 7 years. The Committee find that three types of fired cartridge cases of "M" had been accumulating prior to September 1973 and it was only as late as August 1980 that decision was taken to dispose of types 'B' and 'C' locally while reformable type 'A' cases were to be sent direct to factory 'R' by the various ammunition depots.

1.45 The Committee find that in 1972 the Director, Ordnance Services took up with the Director General, Ordnance Factories the possibility of utilisation of the silicon bearing cartridge cases for the manufacture of

new cartridge cases and accordingly trials were conducted at Factory 'P' during 14 April, 1972 to 19 October 1972. The AHSP however refused to give 'Carte Blanche' for the use of silicon brass in the manufacture of various types of cartridge cases in use with the services. Even though the preliminary trials had been successful from the manufacturing point of view, the AHSP opined that permission could not be granted without restrictions i.e., the process lines should be scrupulously kept separate to avoid mix-up with other non-silicon bearing brass materials.

1.46. The Committee are surprised to note that more than two years were taken in persuading the AHSP even to write to D.G.I. for further trials of these cartridge cases. Thereafter the matter was discussed in a meeting of the Raksha Utpadan Board on 25 and 26 November, 1976 when it was decided that trial manufacture of another type of cartridge cases should be undertaken using silicon brass fired cartridge cases. These cartridge cases were proof fired in 1978 and did not show any abnormality. Thus, about 6 precious years were lost in carrying out the trials and coming to some definite conclusions. This is very unfortunate.

1.47 The Committee find that in March 1974, the Army Headquarters issued instructions to all their Commands to suspend the disposal of the fired cartridge cases of brass since the National Small Industries Corporation had expressed their desire to purchase the same. Later, however, this was not found to be a practical proposition. According to the Ministry, much of the accumulation arose because of the decision to approach the NSIC. The Committee consider that the matter should have been finalised with the NSIC in a business-like manner. The Committee would like to be apprised of the precise circumstances in which the negotiations with the NSIC failed to materialize and why matters could not be settled speedily through direct discussions.

1.48. In August 1976, the Director of Ordnance Services decided that high calibre cases would be stored centrally in covered accommodation at Ammunition Depot 'X'. As a result of these orders, 5102 tonnes of fired cartridge cases—Type 'A', 'B' and 'C'—were back loaded and received in Depot 'X' during October 1976 to March 1978 after incurring an expenditure of Rs. 4.13 lakhs on freight; handling etc. A further quantity of 1719 tonnes of fired cartridge cases accumulated at this depot during April 1978 to September 1980 and an expenditure of Rs. 1.39 lakhs was incurred on their backloading from various depots. According to the Ministry, the decision to stock fired cartridge cases centrally in Ammunition Depot 'X' was taken inter alia to attract purchasers having capability to pay higher prices for the bulk purchases in auction. This expectation did

not materialise as no local bidders capable of taking such huge tonnage were forthcoming. The entire holding of 5,449 tonnes of fired cartridge cases valued at Rs. 13-14 crores accumulated at the Depot was therefore, now being sold through public auctions by DGS&D. Thus an expenditure of Rs. 5.52 lakhs incurred on transporting these cartridge cases to Ammunition Depot 'X' was rendered infructuous. The Committee consider that due prudence was not shown by the authorities concerned in the matter. As Ammunition Depot 'X' which was close to factory 'R' had to supply only type 'A' reformable cartridge cases to factory 'R' there was no justification in sending all the fired cartridge cases without making sure that buyers of such huge stock would be available locally. The Committee would like to express their displeasure at this lapse on the part of the Directorate of Ordnance Services and desire that suitable instructions should be issued to obviate such lapses in future.

1.49. Another unfortunate aspect of the cases is that in May 1977 instructions were issued by the DOS to issue fired cartridge cases of types 'B' and 'C' to ordnance factories 'P', 'Q' and 'R'. As it was known that these cases contained silicon and the factories had no use for them, it is surprising that such instructions should have been issued at all. The DGOF naturally did not take any action in the matter. In February 1980 he stated categorically that these cartridge cases should be disposed of in the normal manner. The Committee thus find that matters were allowed to drift unnecessarily for too long. The Committee do not see any reason why disposal action at least with regard to types 'B' and 'C' cartridge cases could not have been expedited and their stockpiling avoided.

1.50. The Committee were given to understand that the attempt made initially to utilise the fired cartridge cases directly in the ordnance factories by re-melting and using for fresh manufacture did not yield any positive results. However, the reforming of fired cartridge cases of type 'A' only was successful. The work was entrusted to factory 'R' where a type 'A' cartridge case shop was set up as a new project. Though the plant was installed in February 1978, it became fully operational only during 1979. Out of 1,05,845 numbers of fired cartridge cases received in factory 'R' during 1976-77 to 1982 (upto August 1982) 49,896 cases were reformed and accepted; 24,948 rejected and 31,001 cases were in hand for reforming as on 15 September 1982. The Committee would urge that the balance stock should be reformed as quickly as possible and no accumulation of such cases should be permitted in future.

1.51. The Committee find that against the capacity of the plant of producing 60,000 new cartridge cases per annum, the actual performance

was only 7000 in 1978-79. It increased to 39,600 in 1979-80 and further to 50,450 in 1980-81. However, there was a sharp slide back in 1981-82 when it came down to 25050. In 1982-83 the outturn was only 27,210 upto December 1982. The Committee would like the Ministry to take effective steps to remove the constraints in fuller utilisation of the production capacity in factory 'R' so that the capacity is fully utilised and the heavy investment of Rs. 624 lakhs (estimated) yields adequate return.

1.52. The Committee observe that 189563 fired cartridge cases of type 'A' are stored at ammunition depot 'X' and another 27743 cases held in other depots. The programme for the issue of reformable cartridge cases is 40,000 in 1982-83; 30,000 in 1983-84 and 10,000 in 1984-85. The Committee urge that the reformable cartridge cases should be segregated without delay as per the guidelines laid down by the Technical Team in March 98 and the non-reformable cartridge cases disposed of urgently.

1.53. During evidence the Deputy Director General, Supplies and Disposals stated that "in the cartridge cases most disturbing element is silicon. It is very difficult for the trade to separate silicon. The extraction cost is very high." The Committee observe that out of a total stock of 751818 fired cartridge cases, 392818 had been disposed of by December 1982; another 50600 cases were sold in auction in January 1983 and the balance quantity was proposed to be auctioned shortly. As the trade is also separating silicon from brass after purchasing the fired cartridge cases from the Ministry of Defence, the Committee recommend that R&D Organisation of the Ministry should take up this task of finding out a quick and cost effective method of separation of silicon from brass so that precious metals may be utilised more profitably and the surplus, if any, sold at better prices.

1.54. In para 1.29 of their 121st Report (5th Lok Sabha) the Committee had recommended setting up a sort of Metal Bank or Clearing House so as to ensure that the metals specially non-ferrous rendered surplus or unfit for a particular house in one organisation can be profitably utilised elsewhere without being disposed of at loss. The Committee reiterated this recommendation in para 2.43 of their 229th Report (5th Lok Sabha). The Ministry of Defence informed the Committee (January 1978) that instead of a Metal Bank, a Central Coordination Committee had been constituted for coordination/ disposal/re-utilisation of scrap. The Coordination Committee was directed to evolve a system for dissemination of necessary information regarding availability of various kinds of scrap to serve the purpose of Clearing House and that Committee would later on also take action for setting up of a Metal Bank, if considered necessary. The Committee have now been informed that the above suggestion was considered by the Committee of Secretaries. Due to small surplus avail-

able and the cost involved in transportation, storage, etc., in setting up a Metal Bank, the proposal was not found feasible. Instead it has been decided to set up a Standing Committee on Material Conservation to go into all aspects of material conservation, including scrap. At least Rs. 50 crores worth of scrap was stated to be lying in various defence installations as at the end of the year 1981. The Committee trust that the Standing Committee on Material Conservation would be able to recommend measures for early segregation, processing and re-use or sale of the different types of metal scrap generated by the ordnance factories and other defence establishments so as to facilitate their disposal/utilisation in the best possible manner.

NEW DELHI;
April 22, 1983.

Vaisakha 2, 1905 (S).

SATISH AGARWAL
Chairman
Public Accounts Committee

APPENDIX

Statement of Observations and Recommendations

Sl. No.	Para	Ministry concerned	observation/Recommendation
1	2	3	4
1.	1.44	Ministry of Defence	The Audit para has brought to light a case of accumulation of a huge stock of about 5,449 tonnes of fired cartridge cases valuing Rs. 13 to 14 crores. Disposal action with regard to these cartridge cases was delayed for over 7 years. The Committee find that three types of fired cartridge cases of "M" had been accumulating prior to September 1973 and it was only as late as August 1980 that decision was taken to dispose of types 'B' and 'C' locally while reformable type 'A' cases were to be sent direct to factory 'R' by the various ammunition depots.
2.	1.45	do.	The Committee find that in 1972 the Director, Ordnance Services took up with the Director General, Ordnance Factories the possibility of utilisation of the silicon bearing cartridge cases for the manufacture of new cartridge cases and accordingly trials were conducted at Factory 'P' during 14 April, 1972 to 19 October 1972. The AHSP however refused to give 'Carte Blanche' for the use of silicon brass in the manufacture of various types of cartridge cases in use with the services. Even though the preliminary trials had been successful from the manufacturing point of view, the AHSP opined that permission could not be granted without restrictions <i>i.e.</i> the process lines should be scrupulously kept separate to avoid mix-up with other non-silicon bearing brass materials.

3. 1.46 Ministry of Defence The Committee are surprised to note that more than two years were taken in persuading the AHSP even to write to D.G.I. for further trials of these cartridge cases. Thereafter the matter was discussed in a meeting of the Raksha Utpadan Board on 25 and 26 November, 1976 when it was decided that trial manufacture of another type of cartridge cases should be undertaken using silicon brass fired cartridge cases. These cartridge cases were proof fired in 1978 and did not show any abnormality. Thus, about 6 precious years were lost in carrying out the trials and coming to some definite conclusions. This is very unfortunate.
4. 1.47 do. The Committee find that in March 1974 the Army Headquarters issued instructions to all their Commands to suspend the disposal of the fired cartridge cases of brass since the National Small Industries Corporation had expressed their desire to purchase the same. Later, however, this was not found to be a practical proposition. According to the Ministry, much of the accumulation arose because of the decision to approach the NSIC. The Committee consider that the matter should have been finalized with the NSIC in a business-like manner. The Committee would like to be apprised of the precise circumstances in which the negotiations with the NSIC failed to materialize and why matters could not be settled speedily through direct discussions.
5. 1.48 do. In August 1976, the Director of Ordnance Services decided that high calibre cases would be stored centrally in covered accommodation at Ammunition Depot 'X'. As a result of these orders, 5102 tonnes of fired cartridge cases—Types 'A', 'B' and 'C'—were back loaded and received in Depot 'X' during October 1976 to March 1978 after incurring an expenditure of Rs. 4.13 lakhs on freight; handling etc. A further quan-

tity of 1719 tonnes of fired cartridge cases accumulated at this depot during April 1978 to September 1980 and an expenditure of Rs. 1.39 lakhs was incurred on their back-loading from various depots. According to the Ministry, the decision to stock fired cartridge cases centrally in Ammunition Depot 'X' was taken *inter-alia* to attract purchasers having capability to pay higher prices for the bulk purchases in auction. This expectation did not materialize as no local bidders capable of taking such huge tonnage were forthcoming. The entire holding of 5,449 tonnes of fired cartridge cases valued at Rs. 13-14 crores accumulated at the Depot was therefore, now being sold through public auctions by DGS&D. Thus an expenditure of Rs. 5.52 lakhs incurred on transporting these cartridge cases to Ammunition Depot 'X' was rendered infructuous. The Committee consider that due prudence was not shown by the authorities concerned in the matter. As Ammunition Depot 'X' which was close to factory 'R' had to supply only type 'A' reformable cartridge cases to factory 'R' there was no justification in sending all the fired cartridge cases without making sure that buyers of such huge stock would be available locally. The Committee would like to express their displeasure at this lapse on the part of the Directorate of Ordnance Services and desire that suitable instructions should be issued to obviate such lapses in future.

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Another unfortunate aspect of the cases is that in May 1977 instructions were issued by the DOS to issue fired cartridge cases of types 'B' and 'C' to ordnance factories 'P', 'Q' and 'R'. As it was known that

these cases contained silicon and the factories had no use for them, it is surprising that such instructions should have been issued at all. The DGOF naturally did not take any action in the matter. In February 1980 he stated categorically that these cartridge cases should be disposed of in the normal manner. The Committee thus find that matters were allowed to drift unnecessarily for too long. The Committee do not see any reason why disposal action at least with regard to types 'B' and 'C' cartridge cases could not have been expedited and their stockpiling avoided.

7. 1.50 Ministry of Defence The Committee were given to understand that the attempt made initially to utilise the fired cartridge cases directly in the ordnance factories by re-melting and using for fresh manufacture did not yield any positive results. However, the reforming of fired cartridge cases of type 'A' only was successful. The work was entrusted to factory 'R' where a type 'A' cartridge case shop was set up as a new project. Though the plant was installed in February 1978, it became fully operational only during 1979. Out of 105845 numbers of fired cartridge cases received in factory 'R' during 1976-77 to 1982 (upto August 1982) 49,896 cases were reformed and accepted; 24,948 rejected and 31,001 cases were in hand for reforming as on 15 September 1982. The Committee would urge that the balance stock should be reformed as quickly as possible and no accumulation of such cases should be permitted in future.

8. 1.51 -do- The Committee find that against the capacity of the plant of producing 60,000 new cartridge cases per annum, the actual performance was only 7,000 in 1978-79. It increased to 39,600 in 1979-80 and fur-

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ther to 50,450 in 1980-81. However, there was a sharp slide back in 1981-82 when it came down to 25050. In 1982-83 the turn-turn was only 27,210 upto December 1982. The Committee would like the Ministry to take effective steps to remove the constraints in fuller utilisation of the production capacity in factory 'R' so that the capacity is fully utilised and the heavy investment of Rs. 624 lakhs (estimated) yields adequate return.

9. 1.52 Ministry of Defence

The Committee observe that 189563 fired cartridge cases of type 'A' are stored at ammunition depot 'X' and another 27743 cases held in other depots. The programme for the issue of reformable cartridge cases is 40,000 in 1982-83; 30,000 in 1983-84 and 1000,000 in 1984-85. The Committee urge that the reformable cartridge cases should be segregated without delay as per the guidelines laid down by the Technical Team in March 1980 and the non-reformable cartridge cases disposed of urgently.

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10. 1.53 -do-

During evidence the Deputy Director General, Supplies and Disposal stated that "in the... cartridge cases most disturbing element is silicon. it is very difficult for the trade to separate silicon. The extraction cost is very high." The Committee observe that out of a total stock of 751818 fired cartridge cases, 392818 had been disposed of by December 1982; another 50600 cases were sold in auction shortly. As the trade is balance quantity was proposed to be auctioned shortly. As the trade is also separating silicon from brass after purchasing the fired cartridge

cases from the Ministry of Defence, the Committee recommend that R&D Organisation of the Ministry should take up this task of finding out a quick and cost effective method of separation of silicon from brass so that such precious metals may be utilised more profitably and the surplus, if any, sold at better prices.

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In para 1.29 of their 121st Report (5th Lok Sabha) the Committee had recommended setting up a sort of Metal Bank or Clearing House so as to ensure that the metals specially non-ferrous rendered surplus or unfit for a particular house in one organisation can be profitably utilised elsewhere without being disposed of at loss. The Committee reiterated this recommendation in para 2.43 of their 229th Report (5th Lok Sabha). The Ministry of Defence informed the Committee (January 1978) that instead of a Metal Bank, a Central Coordination Committee had been constituted for coordination|disposal|re-utilisation of scrap. The Co-ordination Committee was directed to evolve a system for dissemination of necessary information regarding availability of various kinds of scrap to serve the purpose of Clearing House and that Committee would later on also take action for setting up of a Metal Bank, if considered necessary. The Committee have now been informed that the above suggestion was considered by the Committee of Secretaries. Due to small surplus available and the cost involved in transportation storage, etc. in setting up a Metal Bank, the proposal was not found feasible. Instead it has been decided to set up a Standing Committee on Material Conservation to go into all aspects of material conservation, including scrap. At least Rs. 50 crores worth of scrap was stated to be lying in various defence

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installations as at the end of the year 1981. The Committee trust that the Standing Committee on Material Conservation would be able to recommend measures for early segregation, processing and re-use or sale of the different types of metal scrap generated by the ordnance factories and other defence establishments so as to facilitate their disposal/utilisation in the best possible manner.

20. **Sons,**
Kashmere Gate,
Delhi-6.
21. J. M. Jaina & Brothers,
Mori Gate, Delhi.
22. The English Book Store,
7-L, Connaught Circus,
New Delhi.
23. Bahree Brothers,
188, Lajpatrai Market,
Delhi-6.
24. Oxford Book & Stationery
Company, Scindia House,
Connaught Place,
New Delhi-1.
25. Bookwell,
4, Sant Narankari Colony,
Kingsway Camp,
Delhi-9.
26. The Cen **Agency.**
23/90, Connaught Place,
New Delhi.
27. M/s. D. K. Book Organisations,
74-D, Anand Nagar (Inder Lok),
P.B. No. 2141,
Delhi-110035.
28. M/s. Rajendra Book Agency,
IV-D/50, Lajpat Nagar,
Old Double Storey,
Delhi-110024.
29. M/s. Ashoka Book Agency,
2/27, Roop Nagar,
Delhi.
30. Books India Corporation,
B-967, Shastri Nagar,
New Delhi.

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