

PUBLIC ACCOUNTS COMMITTEE

(1973-74)

(FIFTH LOK SABHA)

NINETY-SEVENTH REPORT

[Action taken by Government on the Recommendations of the Public Accounts Committee contained in their 78th Report (Fifth Lok Sabha) on paragraphs 35 and 52 of the Report of the Comptroller and Auditor General of India for the year 1970-71 (Civil), relating to Departments of Steel and Science and Technology (CSIR)]



LOK SABHA SECRETARIAT
NEW DELHI

February, 1974/Magha, 1895 (S.A.K.A)

Price : Re. 0.80 Paise

LIST OF AUTHORISED AGENTS FOR THE SALE OF LOK SABHA SECRETARIAT PUBLICATIONS

Sl. No.	Name of Agent	Agency No.	Sl. No.	Name of Agent	Agency No.
ANDHRA PRADESH			12.	Charles Lambert & Company, 101, Mahatma Gandhi Road, Opposite Clock Tower, Fort, Bombay.	37
1.	Andhra University General Cooperative Stores Ltd., Waltair (Visakhapatnam)	8	13.	The Current Book House, Maruti Lane, Raghunath Dadaji Street, Bombay-1.	60
2.	G.R.Lakshminipathy Chetty and Sons, General Merchants and News Agents, Nawpet, Chandragiri, Chittoor District.	94	14.	Deccan Book Stall, Ferguson College, Road, Poona-4.	65
ASSAM			15.	M/s. Usha Book Depot 585/A, Chira Bazar, Khan House, Girigaum Road, Bombay-2. B.R.	7
1.	Western Book Depot, Pan Bazar, Gauhati.	7	MYSORE		
BIHAR			16.	M/s. Peoples Book House, Opp. Jaganmohan Palace, Mysore-1.	16
4.	Amar Kitab Ghar, Post Box 78, Diagonal Road, Jamshedpur.	37	RAJASTHAN		
GUJARAT			17.	Information Centre, Government of Rajasthan, Tripoli, Jaipur City.	38
5.	Vijay Stores, Station Road, Anand.	35	UTTAR PRADESH		
6.	The New Order Book Company, Ellis Bridge, Ahmedabad-6.	63	18.	Swastik Industrial Works, 59, Holi Street, Meerut City.	2
HARYANA			19.	Law Book Company, Sardar Patel Marg, Allahabad-1.	48
7.	M/s. Prabhu Book Service, Nai Subzimandi, Gurgaon, (Haryana).	14	WEST BENGAL		
MADHYA PRADESH			20.	Granthaloka, 5/1, Ambica Mookherjee Road, Belgharia, 24 Parganas.	10
8.	Modern Book House, Shiv Vilas Place, Indore City.	13	21.	W. Newman & Company Ltd., 3, Old Court House Street, Calcutta.	44
MAHARASHTRA			22.	Firma K.L. Mukhopadhyay 6/1A, Banchharam Akkur Lane, Calcutta-12.	82
9.	M/s. Sunderdas Gianchand 601, Girgaum Road, Near Princess Street, Bombay-2.	6	23.	M/s. Mukherji Book House, 8-B, Duff Lane, Calcutta-6.	4
10.	The International Book House (Private) Limited, 9, Ash Lane, Mahatma Gandhi Road, Bombay-1.	22			
11.	The International Book Service, Deccan Gymkhana, Poona-4.	26			

CONTENTS

	PAGE
COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE (1973-74)	(iii)
INTRODUCTION	(v)
CHAPTER I Report	I

CORRIGENDA TO THE NINETY-SEVENTH REPORT OF THE PUBLIC ACCOUNTS COMMITTEE (FIFTH LOK SABHA) PRESENTED TO LOK SABHA ON 14-3-1974

- . - . -

<u>Page</u>	<u>Para</u>	<u>Line</u>	<u>For</u>	<u>Read</u>
(v)	3	3	alopted	adopted
6	1.11	2nd from bottom	Departmen	Department
10	1.18	6 15-16	delected 1973, it	deleted 1973. It
11	-	5	woraking	working
24	-	14 from bottom	record achieve- ments	record of achievements

CONTENTS

PAGE

COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE (1973-74)	(iii)
INTRODUCTION	(v)
CHAPTER I. Report	I
CHAPTER II. Recommendations/Observations that have been accepted by Government	II
CHAPTER III. Recommendations/Observations which the Committee do not desire to pursue in the light of the replies of Government	22
CHAPTER IV. Recommendations/Observations replies to which have not been accepted by the Committee and which require reiteration	29
APPENDIX : Summary of main Conclusions/Recommendations	31

PUBLIC ACCOUNTS COMMITTEE
(1973-74)

CHAIRMAN

Shri Jyotirmoy Bosu

MEMBERS

2. Shri Virendra Agarwala
3. Shri S. C. Besra
4. Shri M. Deiveekan
5. Shri C. D. Gautam
- *6. Shri Pampan Gowda
7. Shri Y. S. Mahajan
8. Shri Bibhuti Mishra
9. Shri H. N. Mukerjee
10. Shri Paripoornanand Painuli
11. Shri Narain Chand Parashar
12. Shri H. M. Patel
13. Shri P. Antony Reddi
14. Shri Biswanarayan Shastri
15. Shri Sunder Lal
16. Shri M. Anandam
17. Shri Golap Barbora
18. Shri Bipinpal Das
19. Shri Nawal Kishore
20. Shri P. S. Patil
21. Shri Sasankasekhar Sanyal
22. Shri Sawaisingh Sisodia

SECRETARIAT

Shri Avtar Singh Rikhy—*Joint Secretary.*
Shri M. S. Sundaresan—*Deputy Secretary.*
Shri T. R. Krishnamachari—*Under Secretary.*

*Elected on 29-11-73 *vice* Shri D.S. Afzalpurkar died.

INTRODUCTION

I, the Chairman of the Public Accounts Committee as authorised by the Committee, do present on their behalf this Ninety Seventh Report on action taken by Government on the recommendations of the Public Accounts Committee contained in their 78th Report (Fifth Lok Sabha) relating to Departments of Steel and Science and Technology (CSIR).

2. On the 26th May, 1973 an 'Action Taken' Sub-Committee was appointed to scrutinise the replies from Government in pursuance of the recommendations made by the Committee in their earlier Reports. The Sub-Committee was constituted with the following Members:

Shri H. N. Mukerjee—*Convener*.

2. Shri Sunder Lal	}	<i>Members</i>
3. Shri Biswanarayan Shastri		
4. Shri M. Anandam		
5. Shri Nawal Kishore		
6. Shri H. M. Patel.		

3. The Action Taken Sub-Committee of the Public Accounts Committee (1973-74) considered and adopted this Report at their sitting held on the 7th Jan. 1974. The Report was finally adopted by the Public Accounts Committee on the 31st January, 1974.

4. For facility of reference the main conclusions|recommendations of the Committee had been printed in thick type in the body of the Report. A statement showing the summary of the main conclusions|observations of the Committee is appended to the Report (Appendix).

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

NEW DELHI;
February 4, 1974
Magha 15, 1895 (S).

JYOTIRMOY BOSU,
Chairman,
Public Accounts Committee.

CHAPTER I

REPORT

1.1. This Report of the Committee deals with action taken by Government on the recommendations contained in their 78th Report (Fifth Lok Sabha) on paragraphs 35 and 52 of the Report of the Comptroller and Auditor General of India for the year 1970-71 (Civil) relating to Departments of Steel and Science and Technology (CSIR). Action taken notes have been received in respect of all the 15 recommendations contained in the Report.

1.2. The Action taken notes on the recommendations of the Committee have been categorised under the following heads:

- (i) *Recommendations|observations that have been accepted by Government.*

S. Nos: 1, 3, 4, 8—10, 12, 14, 15.

- (ii) *Recommendations|observations which the Committee do not desire to pursue in the light of the replies of the Government.*

S. Nos: 5, 6, 7, 11, 13.

- (iii) *Recommendations|observations replies to which have not been accepted by the Committee and which require reiteration.*

S. No: 2.

- (iv) *Recommendations|observations in respect of which Government have furnished interim replies.*

Nil.

1.3. The Committee will now deal with action taken on some of the recommendations.

Working of the Central Mechanical Engineering Research Institute, Durgapur—Paragraph 1.12 (S. No. 1).

1.4. Dealing with the work done by various laboratories of the CSIR, the Committee had in paragraph 1.12 observed:

“The Committee had an occasion to review certain aspects of the working of the NRDC and the CSIR in 1969-70. In

their 122nd Report (4th Lok Sabha) the Public Accounts Committee had made several observations about the wide gap between industrial research carried out in CSIR laboratories and its utilisation. Taking note of the very poor record of utilisation of processes developed in the laboratories, the Committee had suggested that the Board of Scientific and Industrial Research should regularly make a systematic review of the performance of each of the laboratories from the point of view of their contribution to the industrial production."

1.5. In their reply dated the 24th October, 1973, the Department of Science & Technology (CSIR) have stated:

"There has been a steady increase in the number of CSIR researches being utilised by industry. The tempo of licensing activity of National Research Development Corporation (NRDC) has increased sharply during the last 3 years as indicated in the following figures:—

1970-71	:	90
1971-72	:	135
1972-73	:	200

Steps have also been taken to stream-line the procedure for transfer of technology from research laboratories to industrial firms as given below:—

- (i) It is proposed that there should be a single nodal point for decision making consisting of the laboratory, CSIR and NRDC sitting together to evaluate and decide about the licensing of processes, terms and parties to be licensed. Thus it will go to a single point for decision making and not make from one organisation to another.
- (ii) The Managing Director of the NRDC has been given powers to grant know-how licences on behalf of the Board of Directors in accordance with approved guidelines.
- (iii) A provision of Rs. 2 crores has been made to the NRDC for providing risk capital and setting up developmental and experimental plants.
- (iv) Karimnagar District has been adopted to bring science to the doors of the people that need it.

CSIR and NRDC would have certainly done better in regard to the release of processes to the industry developed in the laboratories.

if industry had the ability to absorb research results and if industry was more receptive to indigenous technology. Public and Private sector industries have preference for foreign collaboration as such collaboration is on continuing basis and is backed by performance guarantees.

It is now proposed that the CSIR processes may be offered to industry with usual performance guarantees. Action has been initiated to couple with existing consultancy firms and to set up engineering consultancy centres dealing with chemical, Civil and mechanical engineering to evaluate the techno-economic data, help in selecting engineering consultancy firms and provide design engineering support where necessary.

With improved procedures for transfer and adequate technological support it is expected that there will be significant improvement in the transfer and successful commercialisation of the results of researches carried out in the national laboratories.

On the recommendation of the Sarkar Committee and as accepted by the President, CSIR, the B.S.I.R. has been abolished. By and large the management of national laboratories is vested with the executive Committees of the laboratories and the utility of research work is assessed by them from time to time.

1.6. The Committee are perturbed to note a predilection in favour of foreign collaboration even in Public Sector Undertakings which is totally unjustified in the fields in which indigenous technology has improved to the extent where foreign collaboration is neither desirable nor necessary. The preference for a "continuing basis" of foreign collaboration practically involves the permanent dependence of our development on foreign know-how, etc. The aim of the country, doubtless, is to have such collaboration as a transitory phenomenon and to be truly self reliant as rapidly as possible. The CSIR and other relevant agencies should strain every nerve to achieve this result.

The Committee desire to suggest that the industry, both in the Public and Private Sector, should look to available expertise in the country by eliminating their dependence on foreign collaboration which, besides reducing foreign exchange expenditure, would give a fillip to further development of indigenous technology. It should be the endeavour of the research institutions such as the CSIR to orient their research efforts to meet fully and in a satisfactory manner the changing requirements of the industry."

Paragraph 1.13 (S. No. 2)

1.7. While commenting on the performance of the Central Mechanical Engineering Research Institute, Durgapur, the Committee had in paragraph 1.13 recommended as under:

“From the information made available to the Committee in regard to the working of the Central Mechanical Research Institute, Durgapur the Committee find that during 14 years of its existence the Institute has incurred an expenditure of about Rs. 6.92 crores out of which about Rs. 3.87 crores was of recurring nature. During the same period the Institute had developed about 79 processes|inventions, out of which 36 processes|inventions were released to the industry. Out of the 36 processes released to the industry only 13 processes are actually being exploited|utilised. The total value of the products turned out by using the processes|inventions developed at the Institute has been estimated at about Rs. 60 lakhs which is stated to have resulted in a saving of foreign exchange of the order of about Rs. 48 lakhs. These figures do not speak much about the achievement of CMERI. The Committee feel that in the ultimate analysis the success or failure of any research laboratory will have to be judged on the basis of its impact on the industrial production and the extent to which its efforts contribute towards the goal of self-reliance in the matter of technical know-how. While the amount realised by way of premia|royalties may not be proportionate to that spent in a research laboratory in the overall context it will have to be ensured that the expenditure on a laboratory of this nature is commensurate with its contribution towards augmenting production and developing self-reliance particularly in strategic and critical areas. Judged by these criteria the success achieved by the Institute can by no means be said to be satisfactory. The Committee would, therefore, strongly urge the appointment of a Task Force comprising representatives of CSIR|CMERI|NRDC, public undertakings and representatives of leading industrial organisations concerned which manufacture engineering goods, so that the research programme can be suitably reoriented in the interest of rendering maximum technical assistance to industry to achieve self-reliance in the shortest time in strategic and critical areas.”

1.8. In their reply dated the 24th October, 1973, the Department of Science and Technology (C.S.I.R.) have stated:

"Although the Institute came into existence in 1958, first few years were spent mainly in the construction of buildings, purchase of machinery and equipment and their installation etc. The involvement of the Institute in tackling industrial problems started only in 1964 and from then onwards results of research were released to industry for commercial exploitation.

Apart from releasing the know-how of products and processes through NRDC, certain processes and techniques developed by the Institute have been released direct to the industry as technical aid on payment of *ad-hoc* charges and non-exclusive basis. Designs of certain quality control test rigs etc. have also been developed and released to various parties on payment of *ad-hoc* charges. Design developed for economical steel structure have also been released to interested parties on payment of approved charges.

Further the Institute renders consultancy services to industries on payment of fees and also conducts testing and evaluation of materials and products for the industries at scheduled rates approved by the Executive Committee of the Institute.

Besides the above tangible benefits the Institute conducts seminars, short term training courses and undertakes training of research fellows, Government of India trainees as well as staff from industries which are of intangible nature but go a long way in preparing the base for scientific approach and thinking.

Based on a very realistic estimate the sale value of the products turned out by using CMERI processes/inventions may be of the order of about Rs. 400* lakhs. The amount of Rs. 60 lakhs perhaps refer to the processes released through the NRDC only.

The industry has always been associated with the Institute in drawing up research programmes and priorities."

1.9. The Committee have been informed that industry has always been associated with the Central Mechanical Engineering Research Institute, Durgapur in drawing up research programmes and priorities. In spite of this it appears strange that out of 79 processes evol-

*Subject to verification by Audit.

ved in the Central Mechanical Engineering Research Institute only 13 are reported to have been utilised so far. The Committee feel therefore that a comprehensive examination of the research programmes of the CMERI is overdue. In order that this may be done a Task Force comprising representatives of CSIR|CMERI|NRDC public undertakings and representatives of leading industrial organisations concerned with manufacture of engineering goods should be appointed forthwith.

Working of the National Research Development Corporation—Paragraph 1.31 (S. No. 4).

1.10. Referring to the need for reducing the time lag between the availability of an invention and its licensing to the industry by NRDC, the Committee had in paragraph 1.31 observed:

“The Committee note that the Corporation has not at all been able to reduce the time-lag between the availability of an invention and its licensing to the industry. According to CSIR's version the delay varies from “4 months to 3 years or more” before the processes reported to NRDC are released to the industry. The Committee were informed that besides the Administrative Staff College of India who were studying this problem as part of their own programme, the Corporation itself was preparing a report on the subject. The Committee would like to be apprised of the action taken on the basis of studies on hand. The Committee feel that there should be a ‘built-in’ system by which the Corporation reviews at the end of each year in consultation with the Research Institutions concerned the reasons for non-exploitation of the processes so that the shortcomings which are coming in the way of their industrial exploitation could be removed wherever possible without delay. The Committee would like Government to closely examine the working of NRDC with a view to making the Corporation really effective as a channelising agency for research processes developed in national laboratories to reach the production line. The Committee also feel that NRDC should be able to gather from the field the areas where research is required so that this feedback can be put to effective use in framing the research programme of national laboratories from year to year.”

1.11. In their reply dated the 24th October, 1973, the Department of Science & Technology (C.S.I.R.) have stated:

"The National Research Development Corporation (NRDC) has reviewed its working in recent months and has prepared a report as to why it was not possible to licence certain processes.

The main reasons why some of the processes could not be licensed are the following:—

- (i) The processes are not fully developed to be taken up by an entrepreneur for commercial exploitation.
- (ii) There are import difficulties with regard to equipment, raw material etc.
- (iii) Economic conditions change from the time the project was taken in hand until it was completed and available for commercialisation.

Scientists of the N.R.D.C. meet periodically the scientists of the CSIR to review progress of projects from various laboratories.

The working of the N.R.D.C. has been reviewed by the Sarkar Committee who in Part-II of their Report (1971) made recommendations in this regard as under:—

"The National Research Development Corporation should concentrate its efforts on selling major processes, financing pilot plant/prototype research, providing risk capital and offering guarantees to the industry, particularly to the small and medium scale ones. It should undertake techno-economic evaluation of the processes developed by the CSIR Laboratories and should either undertake design engineering and after-sales service on its own or share such expenses with the Laboratories. Alternatively, it should sell the processes on a deferred payment basis to design and engineering consultancy firms which may carry out necessary project engineering and then sell them to industry on turn-key basis with appropriate guarantees."

In view of the changes already made in the working of the Corporation and the plans under implementation, there does not seem to be any need for further review at present.

N.R.D.C. has been giving feedback to the CSIR in respect of research programmes so that the programmes of CSIR laboratories could be framed taking these facts into consideration.

As per recommendation of the Sarkar Committee (Part II) six Co-ordination Councils have been set up in the C.S.I.R. for identification and implementation of inter-laboratory, laboratory-industry and laboratory-university-industry Task Projects.

It is noted that more money by way of premia has been received during recent years which indicates the increased tempo of licensing activity and using indigenous know-how. The amount of premia that has been collected during the last three years (1970-73) is higher than the total premia collected during the previous 16 years (1954-70). As against Rs. 56.28 lakhs royalty and Rs. 28.46 lakhs premia collected during the 16 years (1954-70), the royalty and premia collected during the last 3 years (1970-73) are Rs. 49.63 lakhs and Rs. 32.42 lakhs respectively. During the 3 years (1970-73), 425 agreements have been signed as compared to 654 during the previous 16 years (1954-70)".

1.12. The Committee find that as a result of a review of the working of the National Research Development Corporation recently, reasons why certain processes could not be licensed have been identified. While the reasons offered cannot be accepted as adequate the Committee nevertheless trust that suitable steps will be taken to overcome the difficulties. The guidelines set out in the Sarkar Committee Report are really important and need to be urgently implemented. The research efforts should be primarily directed towards import substitution.

1.13. The Committee further note that some of the processes become unrelated to the requirements of the industry due to changes in the economic conditions in order that the research efforts may not be rendered wasteful, the Committee stress that there should be a periodical review of the research projects so as to decide on their continuance or modifications in view of the changing requirements of the industry.

Collaborative testing and development of filters—Paragraph 1.75 (S. No. 8)

1.14. In paragraph 1.75, the Committee had made the following observations in regard to recovery of outstanding dues from the firm on account of royalty:

"The Committee are also unhappy to note that whereas the Institute expected to earn annually a royalty of about Rs. 0.60 lakh on an expected production of filters worth about 40 lakhs, the actual realisation on account of royalty, during the first 5 years of working of the agreement, has been of the order of Rs. 64,644 only. During evidence it

was stated that the firm had not been able to submit a complete account of their sales etc., because it remained closed from August, 1970 to April, 1972 and hence the exact amount recoverable from the firm had not been finally determined. The Committee would like the NRDC to take speedy action to work out the amount due from the firm and take necessary steps for its recovery in full."

1.15. In their reply dated the 24th October, 1973, the Department of Science & Technology (CSIR) have stated:

"The royalty realised depend upon the actual number of filters produced and tested. The production depends upon various factors. The agreement provides only for the collection of the royalty on the filters tested, manufactured and sold. The firm has been asked by NRDC to submit the complete returns. In this connection meetings were held between the firm and the representatives of NRDC, CSIR and CMERI. CMERI has been requested to give copies of certain test reports to the firm to send the complete returns."

1.16. The Committee desire that the question of determination of the amount due from the firm on account of testing fee should be settled early and that they should be informed of the realisation of dues from the firm.

Paragraph 1.77 (S. No. 10)

1.17. Dealing with the agreement between the CSIR and the N. R. D. C. in regard to licensing of CSIR processes through NRDC the Committee had in paragraph 1.77 observed;

"The Committee note that in terms of an agreement between CSIR and the NRDC all processes|inventions developed in CSIR laboratories are licensed through NRDC for commercial exploitation. This agreement, however, does not cover sponsored and collaborative researches undertaken by the laboratories. As has been revealed by the working of the agreement between CMERI and the private firm, the laboratories|institutes do not have the necessary expertise to sell the know-how or collect the royalties etc. The Committee are, therefore, of the opinion that commercial exploitation of all the processes|inventions developed by the laboratories|institutes of the CSIR should be done preferably by the NRDC or in close consultation with the Corporation from the very beginning and this should be

irrespective of the fact whether such processes|inventions come under the category of sponsored or collaborative researches..”

1.18. In their reply dated the 24th October, 1973, the Department of Science & Technology (CSIR) have stated:

“The Sarkar Committee in Part II of its report had recommended that “the provision in the agreement between the NRDC and CSIR relating to the releases of process in certain cases directly by the CSIR should be deleted.

The views of the Directors of the National Laboratories of the CSIR were invited on the subject and the matter was placed before the President, CSIR who decided that views of the Directors may be taken up with the NRDC for the revision of the existing agreement and other connected matters.

The Directors Conference held on 22-24, December, 1972 recommended the constitution of a Committee to discuss the issue of revision of Agreement between NRDC and CSIR in detail.

The first meeting of the Committee was held on 16th May, 1973, it was *inter-alia* decided to re-draft the agreement in consultation with the legal advisers of the NRDC and the CSIR.”

1.19. The Committee would like to be apprised of the decisions taken in regard to the revision of the agreement between NRDC and CSIR.

CHAPTER II

RECOMMENDATIONS/OBSERVATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

Recommendation

The Committee had an occasion to review certain aspects of the working of the NRDC and the CSIR in 1969-70. In their 122nd Report (4th Lok Sabha) the Public Accounts Committee had made several observations about the wide gap between industrial research carried out in CSIR laboratories and its utilisation. Taking note of the very poor record of utilisation of processes developed in the laboratories, the Committee had suggested that the Board of Scientific and Industrial Research should regularly make a systematic review of the performance of each of the laboratories from the point of view of their contribution to the industrial production.

[Sl. No. 1, Para No. 1.12 of Appendix VI to the PAC's 78th Report
(5th Lok Sabha)]

Action Taken

There has been a steady increase in the number of CSIR researches being utilised by industry. The tempo of licensing activity of National Research Development Corporation (NRDC) has increased sharply during the last 3 years as indicated in the following figures :—

1970 — 71 :	90
1971 — 72 :	135
1972 — 73 :	200

Steps have also been taken to stream-line of the procedure for transfer of technology from research laboratories to industrial firms as given below :—

- (i) It is proposed that there should be a single nodal point for decision making consisting of the laboratory, CSIR and NRDC sitting together to evaluate and decide about the licensing of processes/terms and parties to be licensed. Thus it will go to a single point for decision making and not make from one organisation to another.

- (ii) The Managing Director of the NRDC has been given powers to grant know-how licences on behalf of the Board of Directors in accordance with approved guidelines.
- (iii) A provision of Rs. 2 crores has been made to the NRDC for providing risk capital and setting up developmental and experimental plants.
- (iv) Karimnagar District has been adopted to bring science to the doors of the people that need it.

CSIR and NRDC would have certainly done better in regard to the release of processes to the industry developed in the laboratories if industry had the ability to absorb research result and if industry was more receptive to indigenous technology. Public and Private sector industries have preference for foreign collaboration as such collaboration is on continuing basis and is backed by performance guarantees.

It is now proposed that the CSIR processes may be offered to industry with usual performance guarantees. Action has been initiated to couple with existing consultancy firms and to set up engineering consultancy centres dealing with chemical, civil and mechanical engineering to evaluate the techno-economic data, help in selecting engineering consultancy firms and provide design engineering support where necessary.

With improved procedures for transfer and adequate technological support it is expected that there will be significant improvement in the transfer and successful commercialisation of the results of researches carried out in the national laboratories.

On the recommendation of the Sarkar Committee and as accepted by the President, CSIR, the B.S.I.R. has been abolished. By and large the management of national laboratories is vested with the Executive Committees of the laboratories and the utility of research work is assessed by them from time to time.

[Department of Science & Technology (C.S.I.R.) Note No. 3/6/73-PU
dated 24th October 1973]

Recommendation

In their 122nd Report (1969-70), the Committee had *inter-alia* observed that "one reason for the unsatisfactory utilisation of re-processes developed in CSIR Laboratories is the inadequacy of the National Research Development Corporation, the agency through

which the processes are released." From the information now furnished to the Committee it is revealed that the situation has not improved since then. Out of 1214 inventions reported to NRDC upto 31-3-1971 only 368 inventions were licensed on payment of royalty and/or premium. The total value of the production from these processes has been estimated at about Rs. 36.20 crores, resulting in the saving of foreign exchange of about Rs. 28.30 crores, in the light of the total national industrial output which runs into several thousand crores annually, the NRDC's contribution is too small to have any impact on the total.

[Sl. No. 3—Para No. 1.30 of Appendix VI to the PAC's 78th Report
(5th Lok Sabha)]

Action Taken

The reason for such a state of affairs is that the important sectors of National industry are based on imported know-how while NRDC deals with indigenous know-how. For example, iron and steel, fertilizers, plastics, fibres, petroleum refining and petro-chemicals, many of the mineral based industries, heavy electrical projects, electronic industry, are all based upon imported know-how. The entire public sector industry is based almost totally on imported know-how. A review of the CSIR processes indicates that 85 per cent of these processes do not require a capital of more than 10 lakhs of rupees and only 3 processes have required more than a crore of rupees for capital. The basic point to be tackled here is that a solution has to be found for preventing repeated import of foreign technology into the main sectors of Indian industry. Until this is done, the contribution of indigenous technology towards total national industrial output is likely to be small.

To check import of foreign technology in the country, the following steps have been initiated :—

- (i) Ministry of Industrial Development has published lists indicating gaps in technology, gaps in production and areas where foreign collaboration will not be permitted.
- (ii) The Government of India has recently set up Committees to go into the status of Research and Development (R&D) in the public and private sector enterprises and make suggestions how the R&D effort can be further augmented commensurate with the needs of self-reliance and reduction of dependence on foreign know-how.
- (iii) The National Committee on Science and Technology (NCST) is framing a Science and Technology Plan in re-

lation to the national Fifth Five Year Plan with one of the objectives of identifying areas for technological treatment and reduction in dependence on foreign technology.

The CSIR has proposed that as far as possible, processes developed by the National Laboratories may be offered to industry with performance guarantees as is the case with foreign collaboration which is on continuing basis and is backed by performance guarantees.

With all these measures it is expected that there will be improvement in the transfer and commercial utilisation of the results of researches carried out in the National Laboratories of the CSIR.

[Department of Science & Technology (C.S.I.R.) Note No. 3/6/73-PU dated 24th October 1973]

Recommendation

The Committee note that the Corporation has not at all been able to reduce the time-lag between the availability of an invention and its licensing to the industry. According to CSIR's version the delay varies from "4 months to 3 years or more" before the processes reported to NRDC are released to the industry. The Committee were informed that besides the Administrative Staff College of India who were studying this problem as part of their own programme, the Corporation itself was preparing a report on the subject. The Committee would like to be apprised of the action taken on the basis of studies on hand. The Committee feel that there should be a 'built-in' system by which the Corporation reviews at the end of each year in consultation with the Research Institutions concerned the reasons for non-exploitation of the processes so that the shortcomings which are coming in the way of their industrial exploitation could be removed wherever possible without delay. The Committee would like Government to closely examine the working of NRDC with a view to making the Corporation really effective as a channelising agency for research processes developed in national laboratories to reach the production line. The Committee also feel that NRDC should be able to gather from the field the areas where research is required so that this feedback can be put to effective use in framing the research programme of national laboratories from year to year.

[Sl. No. 4, Para No. 1.31 of Appendix VI to the PAC's 78th Report—
(5th Lok Sabha)]

Action Taken

The National Research Development Corporation (NRDC) has reviewed its working in recent months and has prepared a report as to why it was not possible to licence certain processes.

The main reasons why some of the processes could not be licensed are the following :—

- (i) The processes are not fully developed to be taken up by an entrepreneur for commercial exploitation.
- (ii) There are import difficulties with regard to equipment, raw material etc.
- (iii) Economic conditions change from the time the project was taken in hand until it was completed and available for commercialisation.

Scientists of the N.R.D.C. meet periodically the scientists of the CSIR to review progress of the projects from various laboratories.

The working of the N.R.D.C. has been reviewed by the Sarkar Committee who in Part-II of their Report (1971) made recommendations in this regard as under :—

“The National Research Development Corporation should concentrate its efforts on selling major processes, financing pilot plant/prototype research, providing risk capital and offering guarantees to the industry, particularly to the small and medium scale ones. It should undertake technoeconomic evaluation of the processes developed by the CSIR Laboratories and should either undertake design engineering and after-sales service on its own or share such expenses with the Laboratories. Alternatively, it should sell the processes on a deferred payment basis to design and engineering consultancy firms which may carry out necessary project engineering and then sell them to industry on turn-key basis with appropriate guarantees.”

In view of the changes already made in the working of the Corporation and the plans under implementation, there does not seem to be any need for further review at present.

N.R.D.C. has been giving feed back to the CSIR in respect of research programmes so that the programmes of CSIR laboratories could be framed taking these facts into consideration.

As per recommendation of the Sarkar Committee (Part-II) six Co-ordination Councils have been set up in the C.S.I.R. for identifi-

cation and implementation of inter-laboratory, laboratory-industry and laboratory-university-industry Task Projects.

It is noted that more money by way of premia has been received during recent years which indicates the increased tempo of licensing activity and using indigenous know-how. The amount of premia that has been collected during the last three years (1970-73) is higher than the total premia collected during the previous 16 years (1954-70). As against Rs. 56.28 lakhs royalty and Rs. 28.46 lakhs premia collected during the 16 years (1954-70), the royalty and premia collected during the last 3 years (1970-73) are Rs. 49.63 lakhs and Rs. 32.42 lakhs respectively. During the 3 years (1970-73), 425 agreements have been signed as compared to 654 during the previous 16 years (1954-70).

[Department of Science & Technology (C.S.I.R.) Note No. 3/6/73-PU dated 24th October, 1973].

Recommendation

The Committee are also unhappy to note that whereas the Institute expected to earn annually a royalty of about Rs. 0.60 lakh on an expected production of filters worth about 40 lakhs, the actual realisation on account of royalty, during the first 5 years of the working of the agreement, has been of the order of Rs. 64,644 only. During evidence it was stated that the firm had not been able to submit a complete account of their sales etc., because it remained closed from August, 1970 to April, 1972 and hence the exact amount recoverable from the firm had not been finally determined. The Committee would like the NRDC to take speedy action to work out the amount due from the firm and take necessary steps for its recovery in full.

[Sl. No. 8, Para No. 1.75 of Appendix VI to the PAC's 78th Report (Fifth Lok Sabha)].

Action Taken

The royalty realised depend upon the actual number of filters produced and tested. The production depends upon various factors. The agreement provides only for the collection of the royalty on the filters tested, manufactured and sold. The firm has been asked by NRDC to submit the complete returns. In this connection, meetings were held between the firm and the representatives of NRDC, CSIR and CMERI. CMERI has been requested to give copies of certain test reports to the firm to send the complete returns.

[Department of Scientific and Technology (C.S.I.R.) No. 3/6/73-PU dated 24th October, 1973].

Recommendation

Now that the exclusive period of 5 years is over, the Committee desire that the NRDC should in concert with the Institute explore the feasibility of leasing out the 5 processes so far developed to other suitable parties.

[Sl. No. 9, Para No. 1.76 of Appendix VI to the PAC's 78th Report
(Fifth Lok Sabha)].

Action Taken

NRDC has requested CMERI to furnish the know-how for the filters, so that the know-how for the filters could be licensed to others. Simultaneously, availability of the know-how was advertised.

The advertisement has evoked little response.

With regard to four other processes where exclusive period is over, the position is as follows:

Submersible Pump:

The original contract was developmental in nature between CMERI and the Company. The firm has not signed the agreement with NRDC. Even a prototype has not been produced. Without the production of a prototype and the successful working of the process by the first licensee, there is no possibility of this process being taken up by others.

Escalators:

Negotiations are in progress with some more firms for its licensing. The Institute has to update the designs.

Portable Hardness Tester:

In consultation with the CMERI, the process has been dropped from the active list of NRDC processes, as the process was not fully developed. The Institute has also agreed for returning the lump-sum premium of Rs. 5,000 to the original licensee M/s. Blue Star Ltd.

Instant Water Cooler:

The design of the cooler is not satisfactory, as the compressor which has been specified by the laboratory is, at present, not available in the country. Due to this, the Institute agreed to drop this process.

[Department of Science and Technology (C.S.I.R.) No. 3/6/73-
PU dated 24th Oct., 1973].

Recommendation

The Committee note that in terms of an agreement between CSIR and the NRDC all processes|inventions developed in CSIR laboratories are licensed through NRDC for commercial exploitation. This agreement, however, does not cover sponsored and collaborative researches undertaken by the laboratories. As has been revealed by the working of the agreement between CMERI and the private firm, the laboratories|institutes do not have the necessary expertise to sell the know-how or collect the royalties etc. The Committee are, therefore, of the opinion that commercial exploitation of all the processes|inventions developed by the laboratories|institutes of the CSIR should be done preferably by the NRDC or in close consultation with the Corporation from the very beginning and this should be irrespective of the fact whether such processes/inventions come under the category of sponsored or collaborative researches.

[Sl. No. 10, Para No. 1.77 of Appendix VI to the PAC's 78th Report
(Fifth Lok Sabha)].

Action Taken

The Sarkar Committee in Part II of its report had recommended that "the provision in the agreement between the NRDC and CSIR relating to the release of process in certain cases directly by the CSIR should be deleted".

The views of the Directors of the National Laboratories of the CSIR were invited on the subject and the matter was placed before the President, CSIR who decided that the views of the Directors may be taken up with the NRDC for the revision of the existing agreement and other connected matters.

The Directors Conference held on 22—24, December, 1972 recommended the constitution of a Committee to discuss the issue of revision of Agreement between NRDC and CSIR in detail.

The first meeting of the Committee was held on 16th May, 1973, it was *inter-alia* decided to re-draft the agreement in consultation with the legal advisers of the NRDC and the CSIR.

[Department of Science and Technology (CSIR) Note No. 3/6/73-PU dated 24th Octo., 1973].

Recommendation

Another lapse on the part of the Ministry of Steel was that the D G S & D was left in doubt as to whether he could issue the essentiality certificates for steel billets to the fabricators of track fittings who were not registered as re-rollers. Their letter dated 27th April, 1970 was not clear on this point. It is unfortunate that the fresh tenders for the procurement of dog spikes opened on 5-2-1970 had to be cancelled in August, 1970, as the clarification sought for by the D.G.S. & D. regarding the issue of essentiality certificates was not received from the Ministry of Steel in time. Consequently, fresh tenders had to be invited when the rates went up further. The Committee, therefore, suggest that the carelessness in drafting the letter dated 27-4-1970 should be gone into.

[S. No. 12, Para No. 2.29 of Appendix VI to the PAC's 78th Report (Fifth Lok Sabha)].

Action Taken

The letter dated the 27th April, 1970 was drafted on lines similar to earlier letters dealing with distribution policy of billets. It is true that the query regarding registered and un-registered re-rollers was not anticipated at that time. When the query was received, necessary clarification was issued.

[Deptt. of Steel O.M. No. SC (I)-3 (7) /71-SC (III), dated 3rd November, 1973].

Recommendation

Secondly the Department of Steel which received the letter dated 24th June, 1970, sent a reply only in September, 1970, after 3 months. That this delay was due to dearth of staff to meet the unexpected rush of work in the concerned section of the Department of Steel does not sound very very convincing. The Committee feel that in view of the heavy rush of work proper priorities should have been laid down so that urgent items of work were not lost sight of. At this stage the Committee can only emphasise that such a negligence should not be allowed to be displayed in future.

[S. No. 14, Para No. 2.31 of Appendix VI to the PAC's 78th Report (Fifth Lok Sabha)].

Action Taken

The Committee's observation has been noted for future guidance.

[Deptt. of Steel O.M. No. SC(I)-3(7)/71—SC (III), dated 3rd November, 1973].

Recommendation

"The Committee further find that DGS&D has handled the matter in a routine fashion. Keeping in view the period of validity of tenders the Directorate General of Supplies and Disposals ought to have made special efforts to get the necessary clarification from the Ministry of Steel, in time. The attention of the Ministry of Steel should have been drawn to the date of expiry of the offer at the appropriate level. The Committee hope that all concerned will take a lesson from the lapse that occurred in this case."

[Sl. No. 15, Para No. 232 of Appendix VI to the PAC's 78th Report (Fifth Lok Sabha)].

Action Taken

DGS&D have noted the observations of the Committee and an Office Order has been issued on 27-7-1973 inviting the attention of all officers that where references are made to other Departments, special efforts should be made to obtain their replies within the validity periods of the offers. It has been reiterated that such a reference should also contain the date upto which the offer was valid as laid down in the Office Order No. 74 dated 6-9-1971. A copy of the Office Order No. 7(D) dated 27-7-1973 is enclosed (Annexure).

[Department of Supply Note No. P. III-22(26)|73 dated the 12th November, 1973].

ANNEXURE

COPY

DIRECTORATE GENERAL OF SUPPLIES & DISPOSALS

(Co-ordination Section 1)

OFFICE ORDER NO. 7(D)

Dated 27th July, 1973.

SUBJECT:—*Reference of offers to other Departments for clarification etc.*

In accordance with the instructions contained in para 14 of O.O. No. 7 dated 1-1-1973 when offers are referred to indentors for clarifi-

cation etc., a clear indication in regard to the target date for reply is to be given keeping in view the validity period in the offer.

2. At times references to other Government Departments are also necessitated before taking final decision on the tenders. In a purchase case a reference was made to another Ministry for certain clarification but the validity period of the offer was not kept in view in watching for the reply. In the context of this case Public Accounts Committee have observed in this case that where offers are referred to other Government Departments, special efforts should be made to obtain their reply within the validity period of the offer. While giving a target date to the indentors to furnish reply, the date upto which the offers hold good should also be made clear, as laid down in O.O. No. 74 dated 6-9-1971.

3. All the purchase officers are requested to ensure that in cases where references are made to other Government Departments in connection with offers received, special efforts are made to see that the replies are received within the validity period.

Sd/-

(K. L. KOHLI),

Deputy Director (Co-ordination).

Standard Distribution

(On file No. SDN-1|29(1)|II|73).

CHAPTER III

RECOMMENDATIONS/OBSERVATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN THE LIGHT OF THE REPLIES OF THE GOVERNMENT

Recommendation

The Committee are also of the view that the Corporation has not been able to achieve any significant success in the matter of realisation of some of its objectives. The Corporation has entered into agreements with some foreign research organisations but so far only two processes developed in India have been licensed abroad. Another objective of the Corporation is to enter into agreements with private firms to develop inventions by trial at their works and to reimburse any loss that may be incurred during these trials. Hence also there has been no worthwhile achievement.

[Sl. No. 5, Para No. 1.32 of Appendix VI to the PAC's 78th Report (Fifth Lok Sabha)].

Action Taken

Selling of indigenous know-how abroad is a very difficult task. The traffic, most of the time, is from developed to developing countries. Even other developing countries first look for their know-how in developed countries, because the industrial development achieved in the developed countries is what they wish to emulate; most developing countries are aiming at and they would like to have know-how from developed countries who have successfully achieved industrial and technological development. Also such transfer of technology is normally accompanied by loans, equity participation, etc., which some developing countries welcome.

The Corporation in the recent months has been exploring the possibility of selling Indian know-how in other developing countries. In this connection active collaboration has been established between NRDC and some organisations abroad like DR. DVORCOVITZ Associates who are promoting NRDC processes all over the world. Due to these activities, more enquiries from abroad are coming in. Some of the enquiries that have come in recent months are

listed in Annexure 'A'. These enquiries are being pursued and some may bear fruit. But great hopes cannot be had in this respect in the immediate future, because of the limitations with regard to the range of technology and the competition we face from other developed countries in selling the know-how.

NRDC has entered into agreements with a number of private and public sector firms to develop prototypes and establish pilot plants. The Corporation has also entered into a number of agreements with private firms for developing CSIR processes. Some of these are listed in Annexure 'B'. A good start has been made in this respect.

[Department of Science and Technology (CSIR) Note No. 3/6/73-PU dated 24th October, 1973].

ANNEXURE A

S.No.	Name of the firm	Name of the process
1	M/s. Israel Can Company Ltd., P.O. B. 2748, Tel-Aviv.	Tin from tins scraps.
2	M/s P.D. Consultants Pvt. Ltd., Melburne, Australia.	Trifle elastic Rail fasteners.
3	Nylex Corporation Ltd., Victoria, Australia.	-do.
4	M/s P.D. Consultants Pvt. Ltd., Melburne, Australia.	Tin from tins scrap.
5	Sperways Industries Pvt. Ltd., Alexandria, N.S.W. Australia.	Trifle elastic rail fasteners.
6	Australian Lime Materials Pvt. Ltd., N.S.W. Australia.	-do.
7	M/s. Fermeture Allee, Paris.	TKP Phosphate and boards.
8	Manitaba, Canada.	General
9	John Flyggn & sons Ice, USA	Wet heat resistant leather
10	Sharjah Enterprises, United Arab Eumerwrwa.	Building materials.
11	Taiwan Aluminium Corporation, Taiwan.	Aluminium foil.
12	Abbott Laboratories, North Chicago, USA.	Aluminium foil.
13	East African Sugar Inds. Ltd., Muhoroni (Kenya)	
14	Hazan International, Paris,	

ANNEXURE 'B'

Collaborative Arrangements with private firm for the Development of CSIR and non CSIR Inventions

S. No.	Project	CSIR/Non CSIR	Name of the firm
1	Automatic check weigher.	Non CSIR	M/s. Technolab, Madras.
2	Multistate rotary compression hydraulic press for thermoset moulding	Non CSIR	M/s Neuchem Plastics, Faridabad.
3	Development of Drilling and milling machine type.	Non CSIR	M/s Purshottam Engineering Industries, Bangalore.
4	Development of gear hopping machine Model-5.	Non CSIR	M/s. New Allerberry Works, Calcutta.
5	Development of wide belt sanding machine	Non CSIR	M/s. India Machine Tools Mysore.
6	Dhall Milling	CSIR	M/s. G.G. Dandekar & Co., Dhiwandi.
7	Outsole stitching machine	CSIR	M/s. Indo German Shoe Mfg. Co.,
8	Splitting machine and vibrating staking machine	CSIR	M/s. Hindustan Engg. Works, Kolkapur.
9	Shaving machine	CSIR	M/s. Shalimar Engg. Works Calcutta.

Recommendation

Against this poor record achievements the Committee find that the Corporation has till the end of 1970-71 accumulated losses amounting to Rs. 32.06 lakhs. For the first time in its existence of 17 years the Corporation made some profit in 1970-71. The Committee stress that NRDC should intensify its endeavours to see that the proven processes and know-how with it are put increasingly to productive use by industry thereby augmenting the earnings of the Corporation by way of royalty/premia to wipe out the losses accumulated over the years.

[Sl. No. 6, Para No. 1.33 of Appendix VI to the PAC's 78th Report (Fifth Lok Sabha)]

Action taken

An accumulated loss of Rs. 32.06 lakhs existed till the end of 1970-71. The Corporation has made profits during the last three

consecutive years, wiping out to some extent the accumulated losses. The Corporation has made record collection of premia and royalty during the last three years. Royalty and premia collected during the last three years is nearly as much as the total amount collected during the previous 16 years. Notable progress has been made by the Corporation during the last few years.

However, it has to be noted that NRDC is a non-profit making organisation whose duty is to convert research into industry and not necessarily to make profit. Its performance has to be judged by the number of processes it has been able to licence and convert into industry. In this respect, the record of NRDC has been comparable to that of similar organisation anywhere in the world.

[Department of Science and Technology (C.S.I.R.) No. 3/6/73-
PU dated 24th October, 1973]

Recommendation

The Committee are not happy about the working of the agreement between the NRDC and the private firm for the collaborative testing of filters of the firm by the Central Mechanical Research Institute, Durgapur. In the Committee's view the agreement suffered from the following two lacunae:

(i) Under the arrangements agreed to with the firm, the Institute was required to make available facilities for taking up development of 32 filters per month. According to the information furnished to the Committee, the Institute has a capacity of testing approximately 180 filters per year or 15 filters per month. This capacity was stated to have been created over a period from 1963 to 1972. Therefore, at the time of entering into the agreement in 1966, the Institute did not have the capacity to test 32 filters as had been stipulated in the contract. The firm has sought arbitration alleging that "Institute has not kept its promise and the firm has suffered heavy losses due to the stoppage of the testing by the Institute."

(ii) The other major defect would appear to be the very low rate of royalty of 1 and a half per cent payable by the firm. It is seen that in all other cases where the inventions/processes of the Institute have been licensed to the industry the rate of royalty payable by the licencees mostly ranges between 2 to 5 per cent in addition to a lumpsum payment in the form of premium. In this case the rate of royalty has been fixed at 1 and a half per cent only on sales. Moreover, there is no payment of premium as in other cases.

[Sl. No. 7, Para No. 1.74 of Appendix VI to the PAC's 78th Report
(Fifth Lok Sabha)]

Action taken

The agreement specified that the laboratory should test 32 filters per month. The laboratory would have made this commitment taking into consideration that all this capacity would not be required in the first few years when production in the factory was likely to be limited. The laboratory would have felt that they would progressively increase their testing capacity as the demand for this service increased.

Although in a large number of cases the premium is collected and the royalty is in the order of 2 to 5 per cent there are some cases where no premium is collected and there are other where royalty is less than 2 per cent. As such, the agreement on filters cannot be said to be any different with regard to royalty and premium from the other agreements. Fixation of premium and royalty depends upon the process and efforts required by the laboratory and the entrepreneur to make it a commercial process. The figure was arrived at by negotiations between the laboratory and the entrepreneur.

[Department of Science and Technology (C.S.I.R.) Note No. 3/6/73-PU dated 24th October, 1973]

Recommendation

The DGS & D has been procuring certain items of track fittings such as dog spikes for the Railway. Prior to 1967, the steel billets were supplied to the manufactures of track fittings by the DGS&D out of the allocation made by the Ministry of Steel for the purpose. In August, 1969, when the control was reimposed the Ministry of Steel announced a new billet distribution policy. In fixing the quota for various consumers the DGS&D's requirement was overlooked. Later on, following representations from the DGS&D and discussions at Secretaries' level the steel allocation for the DGS&D was partially restored to 3,000 tonnes per month as against 7,000 tonnes allowed earlier. In the meantime, the DGS&D was forced to allow the tenders for the procurement of 2241 tonnes of dog spikes opened on 30-5-1969 against 1969-70 requirement of Railways to lapse in December, 1969. In view of the resultant extra expenditure and the deferment of track renewal and construction work on the Railways the Committee take a serious view of the omission to include the substantial requirement of the DGS&D in the revised policy of

distribution of billets. They desire that responsibility should be fixed for the lapse.

[S. No. 11, Para No. 2.28 of Appendix VI to the P.A.C.'s 78th Report (Fifth Lok Sabha)]

Action taken

When the billet distribution policy was reviewed in 1969, it was felt that the inclusion of too many special quotas was distorting the pattern of distribution and the numbers of such quotas should, therefore, be reduced to the minimum. It was in these circumstances that a decision was taken to exclude the special quota for DGS&D. However, when a representation against this decision was received from them, the matter was re-examined and the decision was modified to include a special quota for them. In the circumstances, it is submitted that the question of fixing responsibility does not arise.

[Deptt. of Steel O.M. No. SC(I)—3(7)/71-SC(III), dt. 3rd November, 1973]

Recommendation

"The Audit Paragraph highlights several procedural lapses which cost the exchequer an extra expenditure of Rs. 2.69 lakhs. It is unfortunate that the reference made by the Ministry of Supply on 1st May, 1970 to the Ministry of Steel remains untraced. According to the representative of the Ministry of Steel the reference was not at all received and although the reminder dated 13th May, 1970 (with which a copy of the original letter was enclosed) was received in the Ministry, it was not to be found on the relevant file. The Committee desire that DGS&D should find out from their records whether the reference dated 1-5-1970 was actually delivered in the Ministry of Steel and if not, responsibility may be fixed for its non-delivery. In case any proof of its delivery in Department of Steel is available, it should be furnished to Department of Steel, who may take action for fixing responsibility. At the same time, the Department of Steel should find out how the reminder dated 13-5-1970 although received in the Department remains untraced. The Committee would like that the action taken by the DGS&D and the Department of Steel in pursuance of the above observations be intimated to them within 3 months."

[Sl. No. 13, Para No. 2.30 of Appendix VI to the PAC's 78th Report (Fifth Lok Sabha)]

Action Taken

The Peon Book for the year 1970, being maintained in the DGS&D was destroyed on 22-2-1973. The life of a 'Peon Book' as per prescribed rule, is only one year. Consequently, proof of the actual delivery of the letter dated 1.5.1970, in the Ministry of Steel cannot be furnished, at this stage.

[Department of Supply Note Nos. P III—22(26)/73 dated 11 August, 1973]

Recommendation

The Audit paragraph highlights several procedural lapses which cost the exchequer on extra expenditure of Rs. 2.69 lakhs. It is unfortunate that the reference made by the Ministry of supply on 1st May, 1970 to the Ministry of Steel remains untraced. According to the representative of the Ministry of Steel the reference was not at all received and although the reminder dated 13th May, 1970 (with which a copy of the original letter was enclosed) was received in the Ministry, it was not to be found on the relevant file. The Committee desire that DGS&D should find out from their records whether the reference dated 1-5-1970 was actually delivered in the Ministry of Steel and if not responsibility may be fixed for its non-delivery. In case any proof of its delivery in the Department of Steel is available it should be furnished to Department of Steel who may take action for fixing responsibility. At the same time the Department of Steel should find out how the reminder dated 13-5-1970 although received in the Department remains untraced. The Committee would like that the action taken by the DGS&D and the Department of Steel in pursuance of the above observations be intimated to them within 3 months.

[S. No. 13, Para No. 2.30 of Appendix VI to the P.A.C.'s 78th Report (Fifth Lok Sabha)]

Action taken

No proof of delivery of the reference dated 1-5-70 has been received from DGS&D so far. It is regretted that it has still not been possible to trace the reminder dated 13-5-70.

[Deptt. of Steel O.M. No. SC(I)—3(7)/71-SC(III), dt. 3rd November, 1973]

CHAPTER IV

RECOMMENDATIONS OBSERVATIONS REPLIES TO WHICH HAVE NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION

Recommendation

From the information made available to the Committee in regard to the working of the Central Mechanical Research Institute, Durgapur the Committee find that during 14 years of its existence the Institute has incurred an expenditure of about Rs. 6.92 crores out of which about Rs. 3.87 crores was of recurring nature. During the same period the Institute had developed about 79 processes/inventions, out of which 36 processes/inventions were released to the industry. Out of the 36 processes released to the industry only 13 processes are actually being exploited/utilised. The total value of the products turned out by using the processes/inventions developed at the Institute has been estimated at about Rs. 60 lakhs which is stated to have resulted in a saving of foreign exchange of the order of about Rs. 48 lakhs. These figures do not speak much about the achievement of CMERI. The Committee feel that in the ultimate analysis the success or failure of any research laboratory will have to be judged on the basis of its impact on the industrial production and the extent to which its efforts contribute towards the goal of self-reliance in the matter of technical know-how. While the amount realised by way of premia/royalties may not be proportionate to that spent in a research laboratory in the overall context it will have to be ensured that the expenditure on a laboratory of this nature is commensurate with its contribution towards augmenting production and developing self-reliance particularly in strategic and critical areas. Judged by these criteria the success achieved by the Institute can by no means be said to be satisfactory. The Committee would, therefore, strongly urge the appointment of a Task Force comprising representatives of CSIR|CMERI|NRDC, public undertakings and representatives of leading industrial organisations concerned which manufacture engineering goods, so that the research programme can be suitably reoriented in the interest of rendering maximum technical assistance to industry to achieve self-reliance in the shortest time in strategic and critical areas.

[Sl. No. 2, Para No. 1.13 of Appendix VI to the PAC's 78th
Report (Fifth Lok Sabha)]

Action taken

Although the Institute came into existence in 1958, first few years were spent mainly in the construction of buildings, purchase of machinery and equipment and their installation etc. The involvement of the Institute in tackling industrial problems started only in 1964 and from then onwards results of research were released to industry for commercial exploitation.

Apart from releasing the know-how of products and processes through NRDC, certain processes and techniques developed by the Institute have been released direct to the industry as technical aid on payment of *ad-hoc* charges and non-exclusive basis. Designs of certain quality control test rigs etc. have also been developed and released to various parties on payment of *ad-hoc* charges. Design developed for economical steel structure have also been released to interested parties on payment of approved charges.

Further the Institute renders consultancy services to industries on payment of fees and also conducts testing and evaluation of materials and products for the industries at scheduled rates approved by the Executive Committee of the Institute.

Besides the above tangible benefits the Institute conducts seminars, short term training courses and undertakes training of research fellows. Government of India trainees as well as staff from industries which are of intangible nature but go along way in preparing the base for scientific approach and thinking.

Based on a very realistic estimate the sale value of the products turned out by using CMERI processes/inventions may be of the order of about Rs. 400 lakhs. The amount of Rs. 60 lakhs perhaps refer to the processes released through the NRDC only.

The industry has always been associated with the Institute in drawing up research programmes and priorities.

[Department of Science & Technology (C.S.I.R.) Note No.
3/6/73-PU dated 24th Oct. 73]

APPENDIX

Summary of main conclusions/recommendations

S. No.	Para No.	Ministry/Deptt. Concerned	Conclusion/Recommendation
1	2	3	4

1 1.6 CSIR

The Committee are perturbed to note a predilection in favour of foreign collaboration even in Public Sector Undertakings which is totally unjustified in the fields in which indigenous technology has improved to the extent where foreign collaboration is neither desirable nor necessary. The preference for a "continuing basis" of foreign collaboration practically involves the permanent dependence of our development on foreign know-how, etc. The aim of the country, doubtless, is to have such collaboration as a transitory phenomenon and to be truly self reliant as rapidly as possible. The CSIR and other relevant agencies should strain every nerve to achieve this result.

The Committee desire to suggest that the industry, both in the Public and Private Sector, should look to available expertise in the country by eliminating their dependence on foreign collaboration which, besides reducing foreign exchange expenditure, would give a fillip to further development of indigenous technology. It should be the endeavour of the research institutions such as the CSIR to

orient their research efforts to meet fully and in a satisfactory manner the changing requirements of the industry.

2 1.9 CSIR

The Committee have been informed that industry has always been associated with the Central Mechanical Engineering Research Institute, Durgapur in drawing up research programmes and priorities. Inspite of this it appears strange that out of 79 processes evolved in the Central Mechanical Engineering Research Institute only 13 are reported to have been utilised so far. The Committee feel therefore that a comprehensive examination of the research programmes of the CMERI is overdue. In order that this may be done a Task Force comprising representatives of CSIR|CMERI|NRDC public undertakings and representatives of leading industrial organisations concerned with manufacture of engineering goods should be appointed forthwith.

3 1.12 NRDC CSIR

The Committee find that as a result of a review of the working of the National Research Development Corporation recently, reasons why certain processes could not be licensed have been identified. While the reasons offered cannot be accepted as adequate the Committee nevertheless trust that suitable steps will be taken to overcome the difficulties. The guidelines set out in the Sarkar Committee Report are really important and need to be urgently implemented. The research efforts should be primarily directed towards ~~report~~ substitution.

4 1.13 -Do-

The Committee further note that some of the processes become unrelated to the requirements of the industry due to changes in the economic conditions. In order that the research efforts may not be rendered wasteful, the Committee stress that there should be a periodical review of the research projects so as to decide on their continuance or modifications in view of the changing requirements of the industry.

5 1.16 CSIR

The Committee desire that the question of determination of the amount due from the firm on account of testing fee should be settled early and that they should be informed of the realisation of dues from the firm.

6 1.19 CSIR
NRDC

The Committee would like to be apprised of the decisions taken in regard to the revision of the agreement between NRDC and CSIR.