

COMMITTEE ON PUBLIC UNDERTAKINGS
(1967-68)

FOURTH REPORT
(FOURTH LOK SABHA)

**Action taken by Government on the recommendations in the
Second Report of the Committee on Public Undertakings
(Third Lok Sabha)**

HINDUSTAN INSECTICIDES LTD., NEW DELHI

(MINISTRY OF PETROLEUM & CHEMICALS)



**LOK SABHA SECRETARIAT
NEW DELHI**

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COMMITTEE ON PUBLIC UNDERTAKINGS

(1967-68)

(FOURTH LOK SABHA)

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Shri M. M. Mathur—*Under Secretary.*

INTRODUCTION

I, the Chairman, Committee on Public Undertakings, having been authorised by the Committee to submit the Report on their behalf, present this Third Report on the action taken by Government on the recommendations contained in the Second Report of the Committee on Hindustan Insecticides Ltd., New Delhi.

2. The Second Report of the Committee was presented to the Lok Sabha on the 7th April, 1965. Government furnished their replies indicating the action taken on the recommendations contained in that Report between 24th December, 1965 and 30th November, 1966. The replies of Government to the recommendations contained in the aforesaid Report have been considered by the Committee. The Report was adopted by this Committee on the 27th July, 1967.

3. The Report has been divided into the following four chapters:—

I. Report.

II. Recommendations that have been accepted by Government.

III. Recommendations which the Committee do not desire to pursue in view of Government's reply.

IV. Recommendations in respect of which replies of Government have not been accepted by the Committee.

4. An analysis of the action taken by Government on the recommendations contained in the Second Report of the Committee is given in Appendix III. It would be observed therefrom that out of the 27 recommendations made in the Report 66.7 per cent have been accepted by Government and the Committee do not desire to pursue 22.2 per cent of the recommendations in view of the Government's reply. Replies of Government in respect of 11.1 per cent of the recommendations have not been accepted by the Committee.

D. N. TIWARY,

Chairman,

Committee on Public Undertakings.

NEW DELHI;

September 18, 1967.

Bhadra 27, 1889 (S).

CHAPTER I

A.* Tapping of alternative sources for the supply of chlorine to HIL Ltd. paras 7—10 of Second Report.

In para 10 of their Second Report on Hindustan Insecticides Ltd., New Delhi the Committee noted that Delhi Unit was paying Rs. 128 more per tonne for the purchase of chlorine as compared to Alwaye Unit. Since chlorine was a major raw material used in the production of DDT, its high cost at Delhi Unit has evidently affected the cost of production of that unit. They had, therefore, suggested that the possibility of obtaining chlorine at a cheaper price for the Delhi Unit should be explored. The Committee while examining the replies of Government on their Second Report on HIL, again enquired whether any attempts had been made to locate alternative sources for the procurement of chlorine at a cheaper rate. The Government in their reply (*vide* para 4 of Appendix) stated that attempts had been made, but no alternative sources could be located. The major difficulty was in regard to the transport of chlorine in cylinders over a long distance of 500—800 miles at which caustic soda and chlorine producing plants were situated from Delhi. Besides this liquid chlorine would have to be vapourised and would necessitate additional storage facilities at Delhi. For these reasons the Government considered it uneconomic to bring chlorine over long distances.

2. In reply to Unstarred Question No. 4809, answered in Lok Sabha on the 6th July, 1967, the Minister of Petroleum & Chemicals and of Planning & Social Welfare (Shri K. Raghu Ramiah) stated that chlorine was available under long term agreement for about Rs. 100 per M. Tonne in Bombay region and that Hindustan Insecticides Ltd., were considering an offer for supply of liquid chlorine ex-Bombay. The matter was stated to be still in the process of negotiations.

3. *The Committee regret to note that the information supplied to the Committee was at variance with the reply given in the House a day earlier and would urge upon the government to ensure that such mistakes do not occur.*

4. *The Second Report of the Committee was presented to Parliament on the 7th April, 1965. The Committee observe that in over*

*Delhi Unit of HIL obtained chlorine from D.C.M. Chemicals Ltd. at Rs. 378.40 tonne while the Alwaye Unit paid Rs. 250 per tonne to the Travancore-Cochin Chemicals for its chlorine.

two years time Government and HIL have only been able to locate much cheaper sources of supply of chlorine in the Bombay region without being able to decide whether obtaining it from there for the Delhi Unit of HIL would result in savings or not. The Committee hope that the matter will be decided early since chlorine is the main raw material used in the production of DDT.

B. Captive caustic soda plant for producing chlorine

4. In reply to Unstarred Question No. 4810, the Minister of Petroleum and Chemicals stated in the Lok Sabha on the 6th July, 1967, that a Caustic Soda Plant of only 20 tonnes per day capacity would be required to meet the chlorine requirements of Delhi DDT factory of Hindustan Insecticides Ltd., after its expansion.

5. In reply to USQ 4807 on the same day he informed the Lok Sabha that the expansion of the Delhi Unit of the HIL by 1,400 tonnes per year of DDT has been included in the Fourth Plan. He also confirmed that the Works Manager of Delhi Unit while submitting his proposal for the expansion of HIL's activities in Fourth Plan, had suggested in April, 1964 the installation of a caustic soda plant to meet the chlorine requirements. The Minister stated that the suggestion was of a general nature and without supporting details. It was not pursued as subsequently the Committee of Directors and experts which examined the expansion programme of the Company made no recommendations in favour of a captive caustic soda plant.

6. *It appears from the reply that the idea of setting up a caustic soda plant of 20 tonnes per day capacity, which would have met the present and future requirements of chlorine of the Delhi Unit of HIL was not examined. It would have been prudent to have gone into the economics of such a project especially when HIL was paying a high price for this product to a private party who was even prepared to expand its plant to meet the future requirements of HIL.*

CHAPTER II

RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

Recommendation (Serial No. 2)

The Committee regret to note that a period of five years was taken in a minor scheme of this nature, while all the time expenditure was being incurred in transporting chlorine in containers. No agreement was entered into with D.C.M. Chemicals nor any target date fixed for completion of the scheme. There was also considerable delay in placing order for the import of the necessary equipment. The Committee trust that similar omissions and delays will be avoided in future. (Paragraph 14).

REPLY OF GOVERNMENT

The remarks of the Committee have been noted and it is assured that similar omissions and delays would not be allowed to occur in future.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 5)

It will be noticed that the value of imported material consumed per tonne of output has come down during 1962-63 and 1963-64 as compared to 1961-62, but the total expenditure incurred on the purchase of the materials has increased during those years. The Committee apprehend that these materials are being purchased in excess of requirements. They recommend that the matter should be examined with a view to rationalise the purchase procedure. Also, steps should be taken to obtain the materials or substitutes that are available from indigenous sources so that dependence on imported materials is reduced and savings in foreign exchange effected. (Paragraph 23).

REPLY OF GOVERNMENT

As desired by the Committee the purchase procedure has been rationalised and in the case of the import of important raw materials, the Company applies for licences to cover the requirements of either six months or a year depending upon the import policy requirements at the time of the application.

As regards indigenous substitutes, it may be stated that Lissapol D is now being used as substitute for Lissapol LS. The project report for the manufacture of hydrated calcium silicate, a substitute for Microcel E has since been obtained and to start with a plant of one tonne capacity is being put up at Delhi. The supply, erection and commissioning of the plant is expected to be completed in the course of next 6 to 9 months.

Tests are systematically carried out in the laboratories for investigating possibility of other substitutes. The Company has also been asked to use indigenous wetting agents in formulating technical DDT. This has been kept in mind in allocating foreign exchange to them during the year 1965-66.

[*Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated the 24th December, 1965*].

Recommendation (Serial No. 6)

The Committee find that the cost of production of technical DDT has increased during 1962-63 and 1963-64 in both the Units. The selling price of DDT produced by HIL is also the highest in the world market. It is of utmost importance to keep a proper check on this rise in the cost of production and the Committee suggest that the HIL should examine the working of the Units and take steps to effect economy in costs. (Paragraph 28).

REPLY OF GOVERNMENT

The increase in the costs of production in the two Units has been due to the increase in the cost of raw materials and the increase in the salaries and allowances. At Alwaye the power cut imposed for 4 to 5 months in a year and the consequent low production have been a further cause for the increases in the costs of production.

The cost of "raw material" forms about 60 per cent of the cost of production. As already reported under para 20, the efficiencies now obtaining are optimum under the existing facilities and plant conditions and it may not be possible to effect any appreciable improvement in them. Also the costs of the different materials are generally increasing so that the expenditure on consumption of materials is unlikely to come down.

As regards salaries and wages, the higher rates of allowances paid under Central Government rates, the costs of various social amenities to labour, and the annual increments tend to increase the annual wage bill. The establishment of fair price shops and the

proposed introduction of gratuity benefits will further increase expenditure on labour.

As regards power cut at Alwaye, the situation is likely to continue for a few more years.

In the above circumstances the opportunity for reducing the costs of production in the existing conditions is very restricted. Any achievement in this direction is possible only by increasing production through expansion so that the overheads are spread over a larger output. The sanction of the Government for the expansion schemes in the two units has since been received and in implementing them it will be borne in mind to keep the additional overhead expenditure to the minimum to secure a reduction in the total cost of production. However even now, action has been taken to exercise a systematic and continuous watch over the monthly costs of production. The costs of production each month are carefully analysed and scrutinised in the monthly meeting of the Heads of departments and the reasons for the variations studied and steps to overcome are taken. The increasing costs of production have also been examined by a sub-committee of the Board of Directors who felt that the matter needed detailed study by technical experts. The question of introduction of production bonus is being pursued rigorously. A detailed study of the existing processes and operating conditions will be made which is expected to result in the elimination of wastage and in the improvement of the existing methods.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 8)

The Committee are unable to understand how until more than six years after the commencement of production at the Delhi Unit, the rejection percentage of formulated D.D.T. was as high as 48.29 per cent. At Alwaye also this percentage was high and stood at 52.5 per cent at the end of 1960-61. All such rejected material had to be reprocessed in the Units and this would have considerably affected the cost of production. Although there has been an improvement in both the Units after 1960-61 the Committee are concerned to note that the rejections are still 10.3 per cent at the Alwaye Unit. The Committee recommend that the cause of high percentage of rejections should be investigated and steps taken to bring it down. (Paragraph 34).

REPLY OF GOVERNMENT

The reasons for rejections have been investigated with the help of the S.Q.C. Unit of the Indian Statistical Organisation. The matter

has also been taken up with the Indian Standards Institution with regard to anomaly in certain specifications. The I.S.I. will shortly be arranging a meeting to discuss the same. In the meanwhile the percentage rejection at Alwaye has also been coming down, the latest figure for September, 65 being 1%.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated, the 24th December, 1965].

Recommendation (Serial No. 11)

In the manufacture of DDT at the Delhi plant, two processes of chlorination are involved, namely chlorination of benzene and chlorination of alcohol. In both these processes, hydrochloric acid is a by-product. The acid from benzene section is weak, of strength 15 to 20%. The acid from chloral section is purer and of strength 30 to 33%. The 33% acid is being sold at the rate of Rs. 110 per tonne. The 15% acid was previously sold at the rate of Rs. 15 per tonne, but the sale was discontinued in October, 1962 when the absorber for the collection of this acid went out of action. Since then this acid is being neutralised and drained as there are no facilities for transporting it outside Delhi, and as local buyers are not forthcoming. During evidence the representative of the Ministry promised to seek the advice of the Director-General of Technical Development as to how it could be marketed. The Committee hope that this would be done early. They suggest that H.I.L. should also make efforts to find buyers for this product. (Paragraph 44).

REPLY OF GOVERNMENT

The D.G.T.D. have been contacted to find out buyers for the impure 15% acid from the M.C.B. section and the developments are awaited. In the meantime investigations are also in hand to determine if the acid can be purified completely in which case the H.I.L. will be able to get necessary buyers for the same. It may also be mentioned that the Company will shortly be putting up a plant for the manufacture of hydrated calcium silicate (Indigenous substitute for microcel E) which will consume some quantity of the impure acid.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated, the 24th December, 1965].

Recommendation (Serial No. 12)

The Committee regret to note that after the breakages in the equipment for the Sulphuric Acid Purification Plant were noticed, there was a delay of more than 1½ years in importing the replacements. The H.I.L. was thus deprived of substantial savings that

could otherwise have been effected from the sale of the purified acid. (Paragraph 47).

REPLY OF GOVERNMENT

As already explained by the Company to the Committee, delay in the import of the replacements was, by and large, unavoidable and beyond their control. This should however serve as an example and in future delays would be cut down to the maximum extent possible.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 14)

The Committee regret to note that although the process for manufacture of chloral hydrate was evolved towards the end of 1962, the market survey for the product had not been completed even upto early 1965 and the plant remains closed for want of a market. The Committee hope that with the market survey and export possibilities it will be possible to produce according to the full capacity of the plant and sell the entire output. (Paragraph 51).

REPLY OF GOVERNMENT

The market survey since completed reveal that chloral hydrate is mostly consumed in small quantities by parties scattered all over the country. A few larger customers have been contacted and advertisements put in but the response is not encouraging. At the moment there is however scope for demand for the product for Defence requirements. The Board of Directors of the Company also looked into the matter and accordingly it will be further examined by the Directorate General of Technical Development for the ascertainment of permanent demand for the product and for the production on a regular scale.

Enquiries are also being made through the State Trading Corporation of India which indicate a potential market in Holland, Switzerland & Russia for the product and the export sale price has been quoted to the S.T.C. for securing orders. Further developments are awaited.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 15)

It is seen that as early as 1962-63, Government had become aware that D.D.T. would be available from the following year only on loan basis and would have to be paid for in foreign exchange. During the year 1963-64, 9200 long tons D.D.T. 75 per cent were imported from U.S.A. under Development Loan Fund for the N.M.E.P. at a cost of about Rs. 2.20 crores. As shown in para 53 above, the setting up of a 14,00 tonnes D.D.T. plant (technical, i.e. 100 per cent) would have cost only Rs. 65 lakhs inclusive of a foreign exchange component of Rs. 25 lakhs. It is strange that the expansion programme of H.I.L. is being held up for the last few years due to non-availability of foreign exchange, while scarce foreign exchange resources are being utilised for import of the product. The Committee feel that this is a clear case of bad policy in the matter of allocation and management of foreign exchange resources. They consider that a decision to expand the indigenous capacity could have been taken earlier, and in any case by 1962-63. The Committee trust that this would be done without further delay. (Paragraph 58).

REPLY OF GOVERNMENT

The expansion programme for additional production of 1400 tonnes Technical D.D.T. at Delhi and manufacture of 3000 tonnes B.H.C. at Alwaye has been approved by Government. This will cost about Rs. 150 lakhs including Rs. 40 lakhs in foreign exchange expenditure.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 16)

The Committee discussed during evidence whether it was intended to raise the present capacity to meet the country's requirement by the end of the Fourth Plan, which was estimated at 8,000 tonnes. The Committee have been informed that apart from the proposal to increase the capacity of Delhi Unit by 1,400 tonnes, there are no other concrete proposals. The present position seems to be that the manufacture of various pesticides would form an integral part of the petro-chemical field that was developing in the country. It is expected that with the use of the by-products available from the petro-chemical plants, the prices of insecticides and pesticides would be much lower. When the Committee asked whether the present expansion programme of the H.I.L. was likely

to be dropped in view of the setting up of petro-chemical plants, the representative of the Ministry stated that this point would have to be gone into by the technical experts. The expansion programme of H.I.L. if allowed now, would take two to three years and the petro-chemical complex might take about the same time. The experts might, therefore, advise that the expansion of the H.I.L.'s units would not be economical from the point of view of cost of production.

It is clear from the foregoing paragraphs that no final decision has been taken as regards the location of D.D.T. plants in future, although the thinking of the Government is that these would be located near the proposed petro-chemical plants. As valuable foreign exchange is being lost in the import of D.D.T., the Committee feel that the manufacture of insecticides based on the by-products from the petro-chemical plants should receive urgent attention. They suggest that suitable steps for setting up of the D.D.T. plants based on by-products of petro-chemical industries should be initiated early so that the country's requirements in the Fourth Plan period could be met from indigenous capacity. (Paragraphs 61 & 62).

REPLY OF GOVERNMENT

The internal demand of D.D.T. by the end of the Fourth Plan, as per latest estimate, is 7000 tonnes per annum. Apart from the expansion of the Delhi Unit of this Undertaking for the manufacture of 1400 tonnes per annum of D.D.T., which has already been mentioned, it is proposed to establish plants for the manufacture of D.D.T. and other pesticides as part of the Gujarat Petro-chemical Complex which should go into the first phase of production during 1968-69.

[Ministry of Petroleum & Chemicals O.M. No. A&I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial Nos. 17 & 18)

The Committee find that the pace of production of insecticides by the H.I.L. has been slow. During the last ten years the production has been in the sphere of D.D.T. only where it has reached a capacity of 2,800 tonnes. Benzene Hexachloride (B.H.C.) is one of the major insecticides. Although a proposal for its production was made four years back (in 1961-62), no final decision has been taken so far. The Committee are of the opinion that an early decision should be taken in the matter.

As the gap between the existing indigenous production of B.H.C. and the Fourth Plan requirement is 18,000 tonnes, the Committee further feel that it is time that a decision is taken urgently for the expansion of the present indigenous capacity to meet the country's requirements in full.

As regards insecticides other than D.D.T. and B.H.C., the Committee note that some of these insecticides have been developed in the private sector but there is still a gap between the demand and the indigenous capacity as would be seen from Appendix I referred to earlier. As a sum of approximately Rs. 2 crores is spent annually on the import of insecticides other than D.D.T., greater efforts are needed to increase the indigenous capacity of these insecticides. The Committee recommend that the policy of the Government as to the types of insecticides proposed to be developed by the H.I.L. and the targets of their production should be determined. (Paragraphs 67 & 68).

REPLY OF GOVERNMENT

As already mentioned Government have sanctioned the establishment of a 3,000 tonnes per annum plant for the manufacture of B.H.C. at the Alwaye Unit of the Company. It will also be manufactured as part of the Gujarat Petro-chemical complex and in the Hindusthan Organic Chemicals in Maharashtra. The quantity earmarked for the Petro-chemical complex is 10,000 tonnes per annum while the capacity given to H.O.C., another public Undertaking is 3,000 tonnes. The balance of capacity is being given to the private sector.

As regards pesticides other than D.D.T. and B.H.C., discussions have been held between the Planning Commission and the ministries of Petroleum & Chemicals and Food and Agriculture setting into the general pattern and quantum of production depending on the availability of resources. It is also planned to produce 2-4-D, one of important insecticides in the Gujarat Petro-chemical Complex. Efforts continue to license and increase the indigenous capacity of such insecticides in the private sector as and when applications are received.

[Ministry of Petroleum & Chemicals O.M. No. A& I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 19)

It is an accepted principle of financial control that an executive decision should be examined from the financial angle before imple-

mentation. The Committee feel that the position in HIL is anomalous because the Secretary, in his executive capacity, might have to do things which the Financial Controller might object to. The Committee recommend that the post of Financial Controller and Secretary should be separated and if there is not enough work for a full-time Secretary, an Officer at an appropriate level may be appointed to discharge those functions. (Paragraph 72).

REPLY OF GOVERNMENT

The post of Financial Controller-cum-Secretary has been bifurcated. Two separate officers with the following designations are being appointed in the Managing Directors' Office.

1. Financial Adviser and Chief Accounts Officer.
2. Secretary.

[Ministry of Petroleum & Chemicals O.M. No. A. & I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 20)

The Committee note that during the last six years no chemical engineering graduate could be attracted to join Grade I of the Apprentice Training Scheme. They feel that if there was no response from qualified persons to join the scheme, ways and means should have been evolved in the early stages to make the scheme attractive. The Committee regret to note that this was not done. Recently proposals have been made to modify the rules relating to the scheme, but these have yet to be implemented.

As and when the present expansion programmes of the HIL are sanctioned, there will be need to employ a larger number of qualified personnel. It is, therefore, necessary to build up within the organisation a nucleus of qualified and trained persons who could be entrusted with the operation of the new plants that may be set up. It may also be expected that with this expansion, the future prospects in the Company would be enhanced. The Committee suggest that the scheme should be modified in such a way as would enable the prospective candidates to draw pay which are comparable with that in other undertakings and also assure a fair chance of promotion in higher posts. (Paragraph 78).

REPLY OF GOVERNMENT

The rules regarding apprentice Grade I were modified without insisting on the bond condition but even that failed to attract suitable candidates. The Board have therefore since decided that in respect of Engineering graduates, the Company should confine only 2546 (aii) LS—2.

to the graduate apprentice scheme in which the stipend payable during the training period has been raised to Rs. 275 per month to bring it upto the levels in neighbouring factories and the candidate is to be taken in a junior supervisory post after the period of training.

Further more, the Board of Directors in a meeting on 22nd April, 1965, created two supernumerary posts in appropriate grades to absorb Indian scientists abroad. The recruitment to the posts through the CSIR is in progress. It is felt that the graduate apprentices and the scientists thus recruited would build up within the organisation the nucleus of qualified and trained personnel to handle further expansion plants.

[Ministry of Petroleum & Chemicals O.M. No. A. & I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 21)

The Committee find that no detailed study of the working environments of the Delhi or the Alwaye Unit has been carried out since the report of the Chief Adviser, Factories was submitted in 1958. They recommend that study should be made immediately. This would incidentally allay the doubt of the employees about the possible harmful effects of working environments on their health. (Paragraph 82).

REPLY OF GOVERNMENT

Another survey was conducted this year by the Chief Adviser of Factories on the working environments in the Delhi factory and report has recently been received which is under examination by the Company Medical Officer and the Works Manager. A copy of the same has also been made available to the Workers Union. The recommendations made in the Report would be implemented.

[Ministry of Petroleum & Chemicals O.M. No. A. & I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 22A)

It will be seen that the percentage of net profit to capital employed has shown a declining trend after the year 1960-61. While this percentage was 11 per cent in 1960-61, it has come down to 5.5 per cent in 1963-64. This is evidently due to the fact that reserves are added every year due to the addition of net profit, but these are not employed in the business to yield more profit. (Paragraph 89).

REPLY OF GOVERNMENT

Now that the expansion plans have been sanctioned and will be met entirely from the reserve funds of the Company, the percentage of net profit to capital employed will register improvement in the coming years.

[Ministry of Petroleum & Chemicals O.M. No. A. & I-25(4)/64. dated the 24th December, 1965].

Recommendation (Serial No. 23)

The Committee recommend that immediate action should be taken to review the inventories and bring them down to the minimum required. Also, steps should be taken to develop within the organisation a system for keeping continuous watch over inventories. (Paragraph 92).

REPLY OF GOVERNMENT

The report of the consultants has been received on the inventories at Delhi and the services of a full time Officer have been made available for implementing the recommendation and for extending the study to the Always Unit. The recommendations include suitable procedures to develop an internal system within the organisation for ensuring prescribed levels of inventories.

[Ministry of Petroleum & Chemicals O.M. No. A. & I-25(4)/64. dated the 24th December, 1965].

Recommendation (Serial No. 25)

It is surprising that the amounts outstanding against the National Malaria Eradication Programme authorities should be so high. Such outstanding create working capital problems. Timely action does not appear to have been taken by the HIL for realisation of these dues. The presence of the representatives of the Ministry of Health and the NMEP in the Board of Directors of HIL has not evidently been effective in expediting payment. The Committee recommended that energetic steps should be taken by the HIL to realise the outstanding dues. (Paragraph 98).

REPLY OF GOVERNMENT

The matter was taken up by this Ministry and the Associated Finance as a result of which sanction has been conveyed to the NMEP for a sum of Rs. 34.89 lakhs to meet arrear bills and for Rs. 40 lakhs to meet supplies during the current year. The value of arrear bills alone amount to Rs. 57 lacs and the sanction for the

balance amount is expected shortly. Supplies to the extent of about Rs. 52 lacs have already been made upto August, 1965. Hence fresh sanction to cover the balance amount and the cost of supplies in the remaining months of the financial year will have to be accorded which has been taken up with the appropriate authorities. The Company have been advised to examine the possibilities of either charging interest on arrears or give a special discount if the payment is made within the stipulated time.

[Ministry of Petroleum & Chemicals O.M. No. A. & I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 26)

The Committee feel that the HIL has on the whole done well. But at the same time its performance must be viewed against the background that it had been functioning under a monopolistic condition with an assured market (about 87 per cent of its product is sold to the Ministry of Health), and its prices have been fixed leaving a sufficient margin of surplus.

It should be the endeavour of the company to make available its products to agriculturists and public health agencies at a cheaper price. With greater efficiency and reduction in cost of production, the financial results would remain unaffected. The Committee have pointed out some of the short-comings noticed in the working of the Company in this Report. They hope that HIL will review its performance from time to time and take effective measures to overcome the various shortcomings (Paragraphs 99—101).

REPLY OF GOVERNMENT

With larger response from the trade for lifting technical DDT for plant protection purposes and the expansion programme for DDT and BHC taken in hand, there may be scope for settling the chemicals to agriculturists at a cheaper price. The shortcomings as commented upon by the Committee have been noted carefully *vide* replies submitted at proper places. The HIL will surely review its performance from time to time and take effective measures to improve the same.

[Ministry of Petroleum & Chemicals O.M. No. A. & I-25(4)/64, dated the 24th December, 1965].

CHAPTER III

RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLY

Recommendation (Serial No. 3)

The factors responsible for the higher consumption of raw materials at Delhi do not appear to have been properly examined. The Committee recommend that this should be done now. (Paragraph 17).

REPLY OF GOVERNMENT

The possibility and existence of a lower efficiency in the case of a two stream Unit as existing in Delhi against a single stream unit has been accepted by the designers of the plant. Apart from the reasons already furnished, we are unable to find any other cause for the variation in efficiencies in the two places. However, continued and sustained efforts to improve the efficiencies are continuing. In this connection it may be stated that the Company propose to incorporate 'entertainment separators' in the path of discharged gases both in the Monochlorobenzene and chloral sections and thus recover benzene from the hydrochloric acid gas in the monochlorobenzene section and alcohol from hydrochloric acid gas in the chloral section. The equipment for the Monochlorobenzene section has been ordered and the equipment for chloral section may have to be imported. After these are erected, the results will have to be studied.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25 (4)/64, dated, the 24th December, 1965].

Recommendation (Serial No. 4)

It will be noticed that as compared to the Always Unit the raw material cost per tonne of Technical D.D.T. was higher at Delhi by Rs. 307, Rs. 565 and Rs. 216 during 1961-62, 1962-63 and 1963-64 respectively. Also there has been a substantial increase in the cost at Delhi during 1962-63 and at Always during 1963-64. The Committee feel that there is need to examine why the expenditure has been rising and to take steps to reduce it. (Paragraph 20).

REPLY OF GOVERNMENT

The cost of consumption of raw materials depends on two factors, the efficiencies and the unit rates for the different items of raw materials. As already stated under para 17, the efficiencies at Delhi have always been less than at Alwaye. Also the present level of efficiencies which is much less than the designers figures is perhaps the best under the existing operating conditions and, with the ageing of the plant, any substantial improvement of the same is unlikely. As regards the prices of the various raw materials, it is impossible to expect any reduction in the present context of rising prices for all items in the country. Also the effort to substitute indigenous items for imported items results in an increase in costs as the prices of indigenous items are generally higher. In the circumstances a reduction in the raw material cost in the cost of production is not practicable at present.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25 (4)/64, dated, the 24th December, 1965].

Recommendation (Serial No. 10)

The Committee consider that the present selling price of D.D.T. to trade needs a downward revision for two reasons. Firstly, HIL's margin over cost of production is on the high side. Secondly, the price of H.I.L. D.D.T. is more than the landed cost of imported D.D.T. It is, therefore, not surprising that HIL did not succeed in marketing even a small quantity of its product put on sale to trade. The Committee feel that the price of D.D.T. needs to be revised. (Paragraph 43).

REPLY OF GOVERNMENT

The high margin in the selling price to trade for technical D.D.T. has apparently been computed on the basis of the cost of production of technical D.D.T. In this connection it may however be stated that the technical D.D.T. as it comes from the trays cannot be sold to the parties. It will have to be aged for sometime, then crumbled to smaller pieces and then passed through the hammer mill to get the fine powder. The costs of these processes are not included in the cost of production of technical D.D.T. Further the cost of packing is also not included. If these are to be provided for the cost of production of ground D.D.T. for sale to trade would go up by about a rupee/kg and the margin would be correspondingly reduced.

During the year 1964-65, 533 tonnes of Tech. D.D.T. were sold to trade and for the current year the allotment orders received so far amount to 514 tonnes. These indicate a definite improvement in the marketing of the technical D.D.T. to trade. The Board who examined the matter in their 53rd meeting held on 22nd April, 1965 decided that the position might be reviewed after the end of the current financial year and decision taken thereafter. It is no doubt true that the price of HIL D.D.T. is more than the landed cost of imported D.D.T. but this position is not peculiar to D.D.T. only and the reasons for the substantial difference between the selling prices in other countries and in India have already been furnished to the Committee.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25(4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 13)

It is seen that although the purification plant at Always was commissioned in November, 1963, the purified acid has not been accepted by the buyer so far because of its smell and colour. The Committee suggest that the matter may be got examined by technical experts so as to be able to produce the acid which would be acceptable to the buyers. (Paragraph 49).

REPLY OF GOVERNMENT

The purified acid has since been approved and is being lifted by M/s. FACT. An agreement is also being executed to ensure the regular sale of the acid.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25(4)/64, dated, the 24th December, 1965].

Recommendation (Serial No. 22)

The Committee felt that the renting of private accommodation in a relatively expensive locality not only adds to the working cost of the Company but is also open to criticism. They consider that before renting private premises efforts should have been made to secure accommodation from Government pool. The Committee suggest that this may be done now. The requirements of the Company are on a modest scale and it should be possible for the concerned Ministry to allot suitable accommodation. (Paragraph 85).

REPLY OF GOVERNMENT

This Ministry requested the Works and Housing Ministry for accommodation from the Government pool for the HIL's Central

Office. A reply was received that the HIL was not eligible for accommodation from the general pool and that at present the accommodation was insufficient even to meet fully the requirements of eligible Central Government Offices located in Delhi. The matter was thereafter discussed by the Board in a meeting held on 17-7-1965 and they decided to continue with the present accommodation as offices of various other Public Undertakings are also located in the same area and this happens to be cheap in the present circumstances. .

2. The Company has however been asked to keep in mind the question of constructing its own headquarters offices at a suitable time. Such an opportunity might arise when additional land is taken by the Company for its expansion programme.

[Ministry of Petroleum & Chemicals O.M. No. A-I-25 (4)/64, dated the 24th December, 1965].

Recommendation (Serial No. 24)

The higher percentage of cost of packing materials to sales at the Delhi Unit could only be due to the fact that the rates at which these materials are purchased for the Delhi Unit are higher. The Committee recommend that the reasons for this higher cost should be enquired into and steps taken to reduce the same (Paragraph 95.)

REPLY OF GOVERNMENT

In spite of best efforts the supply rate for packing cases could not be brought down even after floating enquiries through advertisement. The Hindustan Housing Factory were approached for the supply of packing cases but their rate was higher. The HIL have been asked to examine the possibilities of manufacturing wooden packing cases with indigenous machine.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25(4)/64, dated the 24th December, 1965].

CHAPTER IV

RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendation (Serial No. 1)

The Committee note that the Delhi Unit pays Rs. 128 more per tonne for the purchase of Chlorine as compared to the Always Unit. Since Chlorine is a major raw material used in the production of DDT, its high cost at Delhi Unit has evidently affected the cost of production of that Unit. The Committee suggest that the possibility of obtaining Chlorine at a cheaper price for the Delhi Unit should be explored. (Paragraph 10).

REPLY OF GOVERNMENT

Chlorine for Delhi factory is purchased from the Delhi Cloth Mills Chemicals Ltd., the supply being made through a pipe line. Negotiations were made by the Company with the Delhi Cloth Mills Chemicals Ltd., asking for supply of Chlorine at a cheaper price. The latter did not however agree to any reduction in the rate stating that their cost of production was higher on account of higher power cost at Delhi. The Company has now been asked to refer the whole question to DGTD through this Ministry. The final result will be communicated in due course.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25(4)/64, dated the 24th December, 1965].

Further information called for by the Committee

The Committee on Public Undertakings noted that the Delhi Unit of HIL was paying Rs. 128 per tonne more for purchase of Chlorine to the Delhi Cloth Mills Chemicals Ltd., as compared to the Always Unit. They felt that the difference was excessive and efforts should have been made to bring down the price in Delhi. The Committee wanted to know whether any alternative sources had been tapped for procurement of Chlorine at cheaper rates; what concrete steps had been taken or were proposed to be taken to control the price of chlorine; whether there were any difficulties in the way of determining a fair price for chlorine and controlling it.

and whether the excess cost that HIL would have to pay for the purchase of chlorine in Delhi during the life time of the present plant and machinery had been worked out. They also wanted the economics of shifting the plant to a place where chlorine was available at a cheaper rate to be worked out.

(L.S.S. O.M. No. 24-PU/65 dated the 3rd June, 1967).

FURTHER REPLY OF GOVERNMENT

* * * *

2. Chlorine is a co-product of caustic soda. It is well known that the cost of production and price of these products are significantly influenced by the cost of power and salt. The cost of both these items are higher at Delhi than at Alwaye. For example, the present rate of power at Delhi is approximately 11.41 paise per unit while at Alwaye it is approximately 3.00 paise per unit. This large difference is bound to be reflected in the price of chlorine at the two places. It is not, therefore, correct to make a simple comparison between the price paid for chlorine by the Delhi and Alwaye units. The Committee are no doubt aware that there are wide variations in the selling price of chlorine prevailing in different regions, and besides the cost factors mentioned above, forces of supply and demand have led to higher prices at some places than at others.

3. It may be added that the contract Hindustan Insecticides Limited entered into with D.C.M. for purchase of chlorine provides for a basic price and an escalation factor in regard to salt, power and steam. Accordingly, the actual price ranged from Rs. 364 per tonne in 1962-63 to Rs. 388.70 in 1964-65. These prices may be compared with the control price of Rs. 437.00 per tonne (ex-works) that was in force in 1962-63. In other words, H.I.L. was enjoying a favourable price under the contract during the period of control.

The Ministry took up the price of chlorine with D.C.M. with a view to explore the possibility of a reduction. The latter did not, however, agree to any reduction on the ground that the cost of principal raw materials, labour charges and overhead costs have all gone up considerably in recent years. Government are now awaiting the recommendations of the Tariff Commission who has been asked to enquire into the entire cost structure of the domestic caustic soda/chlorine industry. The Committee will no doubt appreciate that the question of controlling the price of chlorine or determining a fair price has to be considered carefully from all points of view.

4. The Committee wishes to know if attempts have been made to locate alternative sources. Attempts have been made but no alternative sources could be located. The major difficulty is in regard to the transport of chlorine in cylinders over a long distance of 500—800 miles at which caustic soda and chlorine producing plants are situated from Delhi. Liquid chlorine for use in the DDT manufacture would have to be vapourised and also additional storage facilities would have to be created at Delhi. In view of all these factors, it would be uneconomic to bring chlorine over long distance from outside Delhi.

5. The Committee has enquired about the excess cost that the Delhi Unit will have to pay for chlorine during the life time of the present plant. The plant is already thirteen years old and it cannot be said precisely how many more years it can be expected to function economically without major additions and alterations. Even if a rough figure of ten years is assumed for the purpose the Committee has in view, it is not possible to calculate accurately the excess cost the Delhi Unit will have to incur on account of chlorine in comparison with the Alwaye Unit. With the recent improvement in the gainful disposal of Hydrochloric acid, it will be unrealistic and incomplete to calculate the additional cost without deducting the value obtained for the acid and arriving at a net cost per tonne of chlorine. H.I.L. has reported that in 1966-67 the Delhi Unit was able to sell Hydrochloric acid of 30—33 per cent concentration at Rs. 225.00 per tonne and this had the effect of bringing down the net cost of chlorine to Rs. 320 per tonne. Alwaye Unit on the other hand has been able to dispose of the same acid of 100 per cent concentration for Rs. 97 per tonne. It appears from these figures that the Delhi Unit has an advantage over the Alwaye Unit in regard to the disposal of Hydrochloric acid. If this trend persists the net cost per tonne of chlorine at Delhi may be reduced significantly. These facts have been mentioned to illustrate how difficult it is to arrive at a reasonable figure of excess cost as suggested by the Committee.

6. As regards shifting the plant to a place where chlorine is available at a cheaper rate, it may be pointed out that there are several important factors besides chlorine that had to be taken into account while deciding the question. The availability and price of alcohol which is another important raw material in the context of the present technology, the marketing or distribution pattern of DDT, cost of dismantling the existing plant and re-erecting it elsewhere and above all, loss to the economy in terms of DDT

not produced in this process will have to be taken into account. It may be added that the Committee of directors and experts appointed in 1964 to examine the programme of H.I.L. during the Third and Fourth Plan periods had, on the other hand, recommended that the Delhi plant be expanded, in view of the anticipated distribution pattern of DDT which in their view was the most important factor. Accordingly, Government have sanctioned the additional installation of 1,400 tonnes capacity at Delhi. The Committee may like to take this into account in finalising their observations on this matter.

* * * *

[Ministry of Petroleum & Chemicals O.M. No. A & 1-25(4)64, dated the 7th July, 1967].

COMMENTS OF THE COMMITTEE

(Please see paras 1—4 of Chapter I)

Recommendation (Serial No. 7)

The Committee consider it unfortunate that the power cut was for about 5 months in 1963 and 6 months in 1964 which resulted in substantial shortfall in the production of DDT during those years. It is evident that the schemes for development of power have not kept pace with the increasing demand from the Alwaye region and this has affected the production of various industrial establishments including the DDT factory. The Committee hope that Government would examine the matter so as to ensure adequate power supply to this Unit in future. (Paragraph 32).

REPLY OF GOVERNMENT

The Kerala Government is already aware of the difficulties experienced by the industries because of the annual power cut. An effort was made last year to avoid power cut by borrowing power from Madras Grid and supplying the same at a surcharge of 30 per cent. Even then the power cut had to be imposed in July, 1965. During the current year it is feared that the power cut might be imposed much earlier than in previous year. The Kerala Government have requested the Government of India to put up a thermal

plant. The question has also been taken up by this Ministry with the Ministry of Irrigation and Power.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25(4)/64, dated the 24th December, 1965].

COMMENTS OF THE COMMITTEE

The Committee examined the problem of power cuts in Kerala in their 27th Report on 'Planning, Management and Administration of Kerala State Government Companies' (Paras 36—49). They had recommended that the proposal to have a 100 MW Thermal Power Unit in the Cochin Area should be reconsidered and the Plant should be set up on a Top Priority basis. The Committee are concerned at the delay and suggest speedy action.

Recommendation (Serial No. 9)

The Committee note that the number of days for which the Delhi and Alwaye plants were shut down for repairs and maintenance is higher than the period of 15 days considered normal for a similar plant in U.S.A. It is also a matter of concern that the repairs and maintenance period has increased in both the Units during 1963-64 as compared to the previous year. The circumstances which necessitate shutting down of the plants for longer duration should be examined and remedial measures taken so as to ensure that the maintenance period conforms as far as possible to the normal standards. (Paragraph 38).

REPLY OF GOVERNMENT

By and large repairs and maintenance are due to corrosion as this organisation is handling highly corrosive materials in large quantities like hydrochloric acid, chlorine, chloral and sulphuric acid. Materials of construction more resistant to corrosion are not available in the country as they are elsewhere. The Company is however exploring ways and means for longer supply of such materials within the country.

Delhi plant being in two streams, its repairs and maintenance would naturally require longer shut down than the one Unit plant at Alwaye.

[Ministry of Petroleum & Chemicals O.M. No. A & I-25(4)/64, dated the 24th December, 1965].

COMMENTS OF THE COMMITTEE

The Committee feel the Company has not taken effective remedial measures to reduce the time taken for repairs and maintenance. The lack of improvement after 11 years of experience should be viewed with concern and calls for concrete action. The Committee reiterate their recommendation and hope that adequate and expeditious measures will be taken to implement it.

NEW DELHI:**September 18, 1967.****Bhadra 27, 1889 (S).****D. N. TIWARY****Chairman,****Committee on Public Undertakings.**

APPENDIX I

[NOTE furnished by HIL on second study on environmental hygiene at DDT Factory, Delhi vide reply to the recommendation at S. No. 21 of the Report].

A second study on environmental hygiene at our Delhi factory after a period of 8 years was conducted under the auspices of Chief Adviser Factories, Ministry of Labour and Employment, Government of India. They have submitted their report in May, 1965. The salient points of the report are reproduced below:—

1. On the request of management, a second environmental hygiene survey has been made in this factory after a period of 8 years.
2. Detailed clinical and medical examination of 76 workers of the production department engaged in the manufacture of a chlorinated hydrocarbon insecticide has been done for the first time.
3. The environmental studies indicate that the concentrations of various chemicals in the work-room atmosphere are within reasonable limits according to the recommended threshold values of these substances except in the case of DDT in grinding, bagging and packing.
4. Medical studies have shown a high incidence of cases of accidental gassing from chlorine and cases of foreign bodies in the eyes, some cases of burns from steam and caustic chemicals.

A fairly large number of workers have complained of digestive disorders which are to a large extent associated with the peculiar pattern of shift work and in only a few cases due to chronic exposure to some of the chemicals over a long period.

A few cases of anaemia found are normally to be expected in this group of workers.

A high incidence of eosinophilia points to infestation with parasitic works from uncontrolled water sources.

The blood picture shows a high incidence of neutropenia and high lymphocytosis for which adequate explanation is not possible in the absence of very detailed blood studies and other relevant laboratory examination.

The recommendations made by the above group are also reproduced below:—

The following suggestions and recommendations are based on the observations made above for improving the general working conditions, safety of workers and promotion and maintenance of their health.

A. Working Environment

1. All carboys containing hydrochloric acid should be provided with stoppers and kept stoppered all the time to avoid unnecessary dispersion of corrosive acidic vapours into the atmosphere.
2. All acid spillage in the filling of carboys should be flushed off with copious quantities of water.
3. All broken carboys before disposal should be washed free of acid.
4. Disposal of sulphuric acid (after distillation of a batch of chloral alcoholate) into the drain leading to the sewer should preferably be stopped, as the vapours arising from the drain are irritant, corrode structural materials and equipment and are toxic to personnel.

If disposal into the drains cannot be dispensed with, it should be sufficiently cooled and diluted before being led into the drain. Alternately, the acid residue from the chloral distillation vessel should be neutralised before it is admitted to the sewer at the present location or sent through a long pipe with its outfall outside the plant in the main sewer after thorough cooling and dilution.

5. All workers handling corrosive material should put on complete protective clothing, this includes a plastic fact shield, an effective respirator, clean cap, rubber gloves, rubber boots and overall.
6. Suitable protective clothing must also be worn by workers while draining samples for analysis in:—

(a) Chloral alcoholate section (Safety goggles and gloves).

- (b) Spent sulphuric acid recovery plant (same as above).
 - (c) DDT Section (same as above).
 - (d) Grinding, bagging and chlorine section (approved respirators).
 - (e) For prevention of eye injuries in places like hand-breaking of DDT, filling DDT cases at the air mill, workers should be provided with dust-tight goggles.
7. All respiratory equipment for protection against chlorine should be properly maintained and located in convenient places in the monochloro-benzene plant and chlorination house for emergency use and workers made familiar with them and persuaded to use them.
 8. It would be desirable to stop escape of vapours of hydrochloric acid (in the chlorination house) into the flush and adopt means to remove them by absorption. (It is given to understand that this method has been brought into use after the survey).
 9. Careful attention is required to be given to maintenance and upkeep of plant machinery to avoid leaks and escape of gases, vapours and fumes of toxic chemicals in work-room atmosphere.

B. Medical Control

1. It would be desirable to change the pattern of shift work as practised now. The large incidence of digestive complaints is mainly due to quick change-over of shifts which puts great strain on the normal physiological functions of the organs concerned with digestion. This leads to poor utilization of food and sets up a vicious circle damaging the functions of other organs.
2. Steps are required to be taken to prevent incidence of large scale gassing accidents from chlorine.
3. Chloral hydrate, liquid and vapours, are dangerous to the eye. It acts as a local irritant and causes nausea and vomiting. Workers need to be told of these hazards.
4. Chronic exposure to high concentrations of benzene has a toxic action on blood forming organs.

Repeated blood examinations of workers are necessary including haemoglobin determinations, white cell count and differential smears.

The symptoms of chronic poisoning like fatigue, headache, dizziness, nausea, and loss of appetite, loss of weight and weakness, need to be carefully watched and appropriate advice regarding prevention of further exposure given.

5. Monochlorobenzene is a narcotic and possesses slight irritant qualities. Workers showing these symptoms require to be carefully watched.
6. All cases of confirmed abnormalities should be studied in detail after admission to a hospital. Although clinical manifestations of poisoning in workers engaged in manufacture, handling etc. of chlorinated hydrocarbon and insecticides are primarily neurologic in origin special attention is required to be given to liver and kidney function tests in these workers.

We have adopted the recommendations at both of our factories at Alwaye and Delhi, except the recommendations under Group B (Medical Control) relating to shift work. The workers union at both the factories have been consulted but they have not agreed to a change in the present system of shift work.

We have not conducted a separate study at the Alwaye factory because both the factories are manufacturing DDT under similar process, and the environmental situation at both the factories would be the same. Such being the position, as mentioned above, we have adopted the same recommendations at our Alwaye factory also.

APPENDIX II

(Vide Para 4 of Introduction)

Analysis of action taken by Government on the recommendations contained in the Second Report of the Committee on Public Undertakings (Third Lok Sabha)

I. Total No. of recommendations made	27
II. Recommendations that have been accepted by Government (<i>Vide</i> recommendations at S. Nos. 2, 5, 6, 8, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22-A, 23, 25, 26.	
Number .	18
Percentage of total .	66.7%
III. Recommendations which the Committee do not desire to pursue in view of Government reply (<i>Vide</i> recommendations at S. Nos. 3, 4, 10, 13, 22 & 24.	
Number .	6
Percentage to total .	22.2%
IV. Recommendations in respect of which replies of Government have not been accepted by the Committee (<i>Vide</i> recommendations at S. Nos. 1, 7 & 9)	
Number .	3
Percentage to total .	11.1%

Sl. No.	Name of Agent	Agency No.	Sl. No.	Name of Agent	Agency No.
18.	W. Newman & Company Ltd., 3, Old Court House Street, Calcutta.	44	29.	Oxford Book & Stationery Company, Scindia House, Connaught Place, New Delhi.-1	68
19.	Firma K. L. Mukhopadhyay, 6/1A, Banchharam Akur Lane, Calcutta-12.	82	30.	People's Publishing House, Rani Jhansi Road, New Delhi.	76
DELHI					
20.	Jain Book Agency, Connaught Place, New Delhi.	1	31.	The United Book Agency, 48, Amrit Kaur Market, Fahar Ganj, New Delhi.	88
21.	Sat Narain & Sons, 3141, Mohd. Ali Bazar, Mori Gate, Delhi.	3	32.	Hind Book House, 82, Janpath, New Delhi.	95
22.	Atma Ram & Sons, Kashmere Gate, Delhi-6.	9			
23.	J. M. Jaina & Brothers, Mori Gate, Delhi.	11	33.	Bookwall, 4, Sant Narankari Colony, Kingsway Camp, Delhi-9.	96
24.	The Central News Agency, 23/90, Connaught Place, New Delhi.	15	MANIPUR		
25.	The English Book Store, 7-L, Connaught Circus, New Delhi.	20	34.	Shri N. Chaoba Singh, News Agent, Ram Lal Paul High School Annex, Imphal.	77
26.	Lakshmi Book Store, 42, Municipal Market, Janpath, New Delhi.	23	AGENTS IN FOREIGN COUNTRIES		
27.	Bahree Brothers, 188, Lajpatrai Market, Delhi-6.	27	35.	The Secretary, Establishment Department, The High Commission of India, India House, Aldwych, LONDON, W.C. -2.	
28.	Jayana Book Depot, Chapparwala Kuan, Karol Bagh, New Delhi	66			

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