

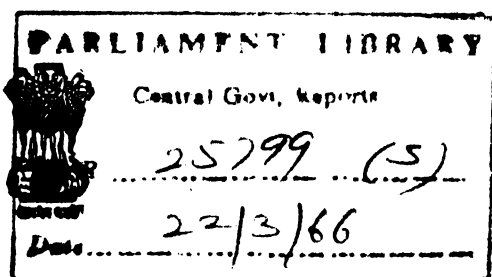
COMMITTEE ON PUBLIC UNDERTAKINGS

(THIRD LOK SABHA)

SEVENTEENTH REPORT

**TRAVANCORE COCHIN CHEMICALS LTD.,
UDYOGAMANDAL.**

(DEPARTMENT OF INDUSTRIES,
GOVERNMENT OF KERALA)



**LOK SABHA SECRETARIAT
NEW DELHI**

March, 1966/Phalgun, 1887 (Saka)

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CORRIGENDA

Seventeenth Report of the Committee on Public Undertakings
on the Travancore-Cochin Chemicals Ltd., Udyogamandal.

<u>Page</u>	<u>Para</u>	<u>Line</u>	<u>For</u>	<u>Read</u>
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CONTENTS

	PAGE
COMPOSITION OF THE COMMITTEE	(ii)
INTRODUCTION	(iii)
I. INTRODUCTORY	1
II. CHLORINE	2
III. RAW MATERIALS	5
IV. COST OF PRODUCTION	8
V. EQUIPMENT	11
VI. RESEARCH	15
VII. FINANCE AND ACCOUNTS	16
APPENDIX-SUMMARY OF CONCLUSIONS/RECOMMENDATIONS	19

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(THIRD LOK SABHA)

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* Appointed as Chairman w. e. f. 24-1-1966 *vice* Shri Panampilli Govinda Menon ceased to be a member of the Committee on his appointment as Minister.

** Elected w. e. f. 23-2-1966 in the vacancies caused by appointment of Shri P. Govinda Menon as Minister and resignation of Shri Harish Chandra Mathur.

INTRODUCTION

I, the Chairman, Committee on Public Undertakings, having been authorised by the Committee to submit the Report on their behalf, present this Seventeenth Report on the Travancore Cochin Chemicals Ltd. Udyogamandal (Kerala State).

2. On a suggestion from the Governor of Kerala, the Speaker directed on the 18th December 1965 that the Committee on Public Undertakings might examine the working of the State-owned Public Undertakings in Kerala. The Committee accordingly decided to examine the working of State Government Companies in Kerala in general and of the following seven in particular:—

- (1) Travancore Titanium Products Ltd., Trivandrum;
- (2) Travancore Cochin Chemicals Ltd., Udyogamandal;
- (3) The Plantation Corporation of Kerala Ltd., Kottayam;
- (4) The Trivandrum Rubber Works Ltd, Trivandrum;
- (5) Kerala Ceramics Ltd., Kundara;
- (6) Kerala Premo Pipe Factory Ltd., Trivandrum; and
- (7) Traco Cable Co. Ltd., Ernakulam.

3. The Report is based on the examination of the working of Travancore Cochin Chemicals Ltd. upto the year ending 31st March, 1965. The Committee took the evidence of the representatives of the company and the State Government Officers concerned on the 3rd February 1966, at Trivandrum. The Report was adopted by the Committee on 10th March, 1966.

4. The Committee wish to express their thanks to the officers of the Kerala State Government and the Travancore Cochin Chemicals Ltd. for placing before them the material and information that they wanted in connection with their examination.

NEW DELHI;

D. N. TIWARY,
Chairman,

11th March, 1966.

Committee on Public Undertakings.

Phalguna 20, 1887 (S).

(iii)

(v)

I

INTRODUCTORY

The Travancore Cochin Chemicals Ltd. at Udyogamandal near Alwaye is one of the major caustic soda producing units in the country. It was incorporated as a company in 1951. The original sponsors of the company were M/s. Seshasayee Brothers (Travancore) Ltd. and who were the Managing Agents till the 15th August, 1960. When the Managing Agency system ceased on that date, the Kerala State Government took over the management of the company.

2. The authorised capital of the company is Rs. 2.5 crores and the present paid up capital is Rs. 1,24,09,100. The major shareholders are the Government of Kerala (Rs. 80 lakhs), M/s. F.A.C.T., Alwaye (Rs. 34,09,100), and M/s. Mettur Chemical and Industrial Corporation Ltd. (Rs. 10 lakhs).

3. The factory produces caustic soda, chlorine, Hydrochloric acid, Bleach liquor, sodium hydrosulphite and sodium sulphide.

4. The factory went into commercial production in 1954 with an initial capacity of 20 tonnes of caustic soda and 17.5 tonnes of chlorine per day. Subsequently the capacity was raised to 40 tonnes of caustic soda. Additional plants for the production of 3 tonnes of sodium hydrosulphite per day and 4.2 tonnes of 62% iron free sodium sulphide per day have been added in subsequent years.

II

CHLORINE

5. Audit had stated that the company incurred a loss of Rs. 11.09 lakhs during the year 1963-64 by selling Hydrogen Chloride gas and Hydrochloric acid at rates lower than their costs.

6. The company had entered into a 6 year contract with M/s. Hindustan Insecticides Ltd., Udyogamandal, for the supply of chlorine at Rs. 250/- M.T. as against the actual cost of production of Rs. 430/- during 1963-64.

7. Chlorine is a by-product in the manufacture of caustic soda. The Committee understand that 85 tonnes of it is produced for every 100 tonnes of caustic soda. The demand for chlorine in the country was approximately two-thirds of the total production. This had resulted in most of the manufacturers selling chlorine at rates lower than the cost of production and in some cases it was disposed of without any realisation. In fact, the surplus chlorine in 1967 was expected to be 90,000 tonnes in the country. There is however no loss actually to the company on this account. The pricing of caustic soda is done in such a way that the cost difference on chlorine is added on it. The loss on chlorine is therefore only a theoretical loss. The Tariff Commission in their Report on the Caustic soda industry in 1964 had dealt with this problem of the industry. The Commission had recognised that cost of chlorine was an inevitable burden which caustic soda had to bear.

3. The TCC used to sell the chlorine to M/s. Hindustan Insecticides @Rs. 142/- per tonne till 1963 when they revised their contract and raised the price to Rs. 250/- per tonne. The reason for entering into a long term contract was that they would have a standing customer, which was an advantage, as chlorine was likely to operate on a buyers' market for some years to come. *This action of TCC appears to be justified under the circumstances.*

9. As production of caustic soda is being increased from 40 tonnes to 100 tonnes per day in July 1966, the production of chlorine will also increase correspondingly. For the future, the factory has plans to expand from 100 tons to 250 tonnes when the production of

chlorine will be of the order of 220 tonnes per day. It is obvious that unless the factory is able to dispose of chlorine at cost price, the cost of production of caustic soda will continue to be artificially loaded with some of the cost of chlorine.

10. The Tariff Commission had suggested two solutions for this problem. One was for the company to start chlorine based industries as ancillary units. The second was to explore the possibilities of exporting both liquid chlorine and chlorine based products. As regards the second possibility, the Committee were informed that liquid chlorine and hydrochloric acid could be exported but lack of containers was a big handicap.

11. As this is an all-India, problem, the Committee would desire the Government of India to study it in detail. With the development of the iron and steel industry, it should be possible to manufacture the necessary containers in this country.

12. The Tariff Commission had also recommended that it would be desirable to offer export incentives inclusive of freight concessions. The Committee would also urge the Government of India to give due consideration to this aspect. The Tariff Commission had correctly stated that "considering the size of surplus expected in the near future, it is evident that every effort should be made to accelerate the utilisation of chlorine now going to waste". As the price of liquid chlorine will be lower than the cost price, the export price can be equated to the international price as the manufacturers will still be gaining something.

13. Being located near a major Port, the TCC has apparently an advantage over other manufacturers in so far as they can save on the freight for transport to the Port. The Committee hope that the company will make all efforts to export liquid Chlorine.

14. As regards the other suggestion of the Tariff Commission to locate an ancillary industry to manufacture chlorine based products, the Committee hope that serious consideration will be given to this matter by the State Government. Private industrialists may be offered incentives and necessary facilities for starting chlorine based industry at Alwaye or near-about or else, TCC itself may think of starting an ancillary unit after carrying out economic feasibility studies.

15. *The Committee feel in this context that it would be possible to build up an export oriented industry as for instance the manufacture of benzene hexachloride. There should be other such chloride based products which have good export possibilities. The D.G.T.D. and the Ministry of Commerce might make a study of this matter in consultation with other manufacturers.*

III

RAW MATERIALS

16. Mercury is an essential raw material in the manu- *Mercury* facturing process. This has to be imported and it is understood that due to world shortage, the international prices are soaring. In fact, the price has gone up from £62 per flask of 34.5 kgs. to £212 per flask in the course of the last two years. Besides the high costs, the problem of procurement is also causing anxiety to the Company.

17. Mercury used to be imported directly by the Company but now imports are channelled through the S.T.C. The Company is, therefore, dependent on the S.T.C. for supplies and as there are no firm commitments by S.T.C. the company is perturbed over the matter.

18. For starting the new 60 tonne plant the factory requires 2150 flasks of Mercury. They have so far obtained only 1040 flasks and hope to get the additional 1110 flasks from S.T.C. at an early date. Delay in supplies would correspondingly defer commissioning of the new plant.

19. *The Committee hope that the S.T.C. will appreciate the urgency of the requirements and arrange for immediate import of necessary quantity of mercury for the T.C.C. In fact the Committee would also suggest, in view of the soaring world prices, that the S.T.C. imports sufficient quantities of mercury to enable adequate stockpile in the country.*

20. Another matter which was brought to the notice of the Committee was that since the S.T.C. imported the mercury to Bombay, the Company has to pay 1-1/8% additional freight plus insurance from Bombay to Cochin as compared to direct shipments to Cochin as was done previously. Besides, the import *via* Bombay involved the payment of Bombay Sales Tax of 5%. These additional expenses were besides the commission payable to the S.T.C.

21. The Committee feel that this additional burden to the Company should be lessened to the extent possible. It is suggested that the S.T.C. may import mercury required for the T.C.C. directly to Cochin instead of importing it to Bombay, and later shipping it to Cochin.

22. In the meantime, the Committee hope that the Company will take all measures to reduce the consumption of mercury, graphite and other imported raw materials. It might be useful for the Company to compare their consumption figures with other caustic soda manufacturers using the same process.

**Packing
Sheets**

23. The factory requires black plain sheets 24 G and 26 G for the fabrication of drums for packing caustic soda (solid and flakes). The Committee were informed that an order was placed on the Hindustan Steel Limited, (Rourkela Steel Plant), for 310 tonnes of black sheets in 1961 to 1963 and out of this order 158 tons were yet to be supplied. Because of short and irregular supplies the company had to resort to imports under the D.L.F. plan to stave off the crisis.

24. The Committee understand that the Rourkela Steel plant is unable to meet the demands of black sheets in the country and that it has not been possible for the Plant to effect regular supplies of sheets to the T.C.C. because of the low priority accorded by the Steel Priorities Committee to the caustic soda industry. The Committee, however, consider it a matter of regret that foreign exchange should be wasted on importing these sheets when our steel industry has grown to considerable dimensions and is capable of producing them. The Committee suggest that the H.S.L. should find ways and means to manufacture adequate quantities of black sheets to meet the requirements of the country.

**Sulphur
Dioxide**

25. While enquiring into the shortfall in the production of Sodium Hydrosulphite in 1964-65 when only 575 tonnes was produced as against a rated capacity of 900 tonnes, the Committee learnt that sulphur dioxide which is supplied by the neighbouring F.A.C.T. was not received in sufficient quantities. Sulphur dioxide is an essential raw material in the manufacture of sodium hydrosulphite.

26. F.A.C.T. are shareholders in the T.C.C. and should have taken adequate precaution to ensure that the supplies of sulphur dioxide to the T.C.C. were made in accordance with the requirements. The Managing Director stated in his evidence before the Committee that the F.A.C.T. had undertaken to effect uninterrupted supplies in future. The Committee would suggest that this assurance should be reduced to an agreement in writing with suitable penalty provisions.

IV

COST OF PRODUCTION

27. The Committee were informed that the price at which caustic soda was sold by the Company was Rs. 740/- per tonne. The prices of most manufacturers in the country were more or less this figure. Compared to this the landed cost, without duty, of imported caustic soda was Rs. 477/- per tonne. The difference is considerable and the tariff protection to the industry is 70% *ad valorem* (preferential) and 80% *ad valorem* (Standard) exclusive of the surcharge and countervailing excise duty for imports.

28. *Apart from the cost of Chlorine, discussed earlier, there are several avenues for cost reduction to which the company should pay close attention.*

29. Audit had mentioned in para 81 of their report for 1965 that a work study and job evaluation was conducted by a private firm of management consultants in 1963 and that they had submitted several suggestions for changes in the method of production and reduction of surplus staff the implementation of which, would have resulted in an annual saving of Rs. 5.63 lakhs. Though the report of the consultants was submitted in November 1963 and it had cost the company Rs. 38,250/-, nothing substantial had been done by the Company to implement the proposals made therein.

30. The Committee were informed that out of the Rs. 5.63 lakhs, Rs. 1.5 lakhs represented savings as a result of standardisation of the hydrosulphite strength and about Rs. 2.3 lakhs on account of staff reduction. Staff reduction could not be effected as the recognised Union had split into two in 1964 and one of them had filed a writ in the High Court and obtained a stay order. The Management was therefore helpless in negotiating with the Unions in fixing standard norms of work and establishing the total surplus labour.

31. The Committee would like to draw the attention of the Management to the necessity of fixing quickly the norms of work and laying down the staff strength for the expansion stage in accordance with these norms. If such an action is not taken now, the company will be faced with larger surplus staff after the expansion when it will be impossible to absorb them.

32. As for changes in the production methods with a view to reducing costs, the Committee were informed that several improvements had been made, mostly by the Plant itself with equipment fabricated in its own workshop. For example, improvements had been carried out in the ovens, burners, cooling system etc. of the Hydrochloric acid plant, and in the chlorine liquefaction plant, the brine plant and the Hydrosulphite plant. This is encouraging. The Committee would suggest that suitable rewards be paid for such suggestions as are accepted and that an amount be set apart for this purpose in the Budget.

33. The Committee were informed that the following measures were being contemplated for reduction of costs:—

1. The new 60 tonne plant for manufacture of caustic soda was designed in such a way as to reduce operational overheads.
2. Various measures are being taken to modernise the old cell plant and increase its working efficiency.
3. The installation of a new Silicon Rectifier has improved the current efficiency.
4. Manual unloading of salt at the companys' jetty is proposed to be mechanised by the installation of overhead cranes and conveyors so as to avoid material handling delays and reduce loss of salt in transport due to spillage etc.
5. The new 7 tonnes Hydrosulphite plant which has been ordered uses the zinc process. This

will reduce considerably the cost of production of this product, since the zinc in the process is recovered and has a resale value.

34. *The Committee hope that besides these measures, the company will always explore possibilities of cost reduction and implement concrete proposals as soon as they are accepted. As regards the installation of mechanical handling facilities at the jetty, the Committee hope that action will be expedited.*

35. *There is a great necessity to reduce costs because of the further difficulties of selling the extra Chlorine that will be produced after expansion. In this connection the Committee were not satisfied with the methods of costing done at the company. The Management should get more frequent cost and material consumption reports to show how costs on each item were working out so that variations are taken care of promptly. Besides, such break-up of costs into their elements will enable the Management to tackle individual costs separately and take necessary measures for cost reduction. The Managing Director of the company, during his evidence before the Committee admitted that the cost accounting system was capable of being streamlined to be more beneficial to the Management. The Committee desire that prompt action be taken in this direction.*

V EQUIPMENT

36. An 8000 KVA Oerlikon transformer was installed by the company in October, 1961 at a cost of Rs. 3 lakhs. Besides this transformer, the factory has 3 other smaller transformers, totalling a load of 8000 KVA. *Damage of Transformers.*

37. On 13th May, 1962, the 8000 KVA Oerlikon transformer was struck by lightning. Swiss engineers came to India for repairing it and the transformer was recommissioned on 15th December, 1962, at a cost of Rs. 46,700.

38. On 25th December, 1964, almost under similar conditions, the transformer was struck by lightning again. A Swiss engineer from the suppliers inspected the transformer but he could not repair it. In a report submitted on 23rd June, 1965, the Swiss firm stated that it was necessary to make changes in the design to safeguard against repeated failures of this nature and as such it was necessary to undertake the repairs at the factory in Switzerland. The cost of repair itself was Sw. Frs. 52,540 besides the to and fro freight, inland transport in Europe, other handling and insurance etc., bringing the total foreign exchange expenditure to Rs. 88,000, for the release of which application has been made to the Government of India.

39. The Committee were informed that the T.C.C. had made an application to the Government of India in September, 1965 for release of the necessary foreign exchange. Till February, 1966, this sanction had not been received.

40. The damage to this transformer has affected production considerably. During the power cut, the power made available, being based on average consumption, was less than what would have been available had the transformer been working. The total loss in production due to the break-down of the transformer was as follows:—

Caustic soda	2,000 tonnes
Chlorine	1,600 tonnes
Sodium Hydrosulphite	300 tonnes

41. In terms of money, it meant a net loss of Rs. 40,00,000 in production and Rs. 5 lakhs in profits.

42. Caustic soda is in short supply in the country and imports are being effected to meet the country's growing demands. The equivalent of 2,000 tons of imports means a drain of foreign exchange of Rs. 10 lakhs.

43. *The Committee are not very happy over this matter, judging from the facts available. Firstly, for a transformer to get damaged by lightning is a rare occurrence as such equipment is usually fitted with proper lightning arresters. Assuming that such an accident did happen, the law of probability is against a second occurrence unless the fault lay in the equipment itself. That the manufacturers have suggested an alteration in the design in order to safeguard against such accidents is a pointer to the fact that the equipment was defective or it was installed without taking sufficient precautions against lightning. It is apparent that the T.C.C. had not made an enquiry into this matter. The Company should however get the equipment thoroughly checked by an expert after the transformer has been repaired and satisfy itself that adequate precautions against damage by lightning have been provided for. In the meantime an expert should be asked to check the three other transformers as regards their location and vulnerability to lightning.*

44. The second matter arising from this case is the delay. In February, 1966 almost 14 months had lapsed since the transformer had gone out of commission and yet there was nothing definite about the date when it would be reinstalled after repairs. The foreign exchange had not been released. The necessary export-import licence had to be procured and the shipment arranged. At the present rate of progress, it appears that the company would not be able to instal the transformer till the end of the year, by which time 2 years would have passed, or in terms of production, a loss of Rs. 80 lakhs and Rs. 10 lakhs in profits.

45. *The Committee hope that the Government of India will expedite such cases. Such requests for foreign exchange should be balanced with the cost of imports required because of lack of internal production resulting from the want of some minor repair of equipment. Release of foreign*

exchange in such cases should get top most priority and the cases should be dealt with expeditiously. Procedures of this nature should be streamlined so that industrial production does not suffer which in turn results in spending large amounts of foreign exchange on imports to make up for the loss of production at home.

46. The factory has a Sodium Hydrosulphite Plant with a daily rated capacity of 3.1 tonnes. For every tonne of Sodium Hydrosulphite manufactured, 2.3 tonnes of high purity salt are required, which means an annual consumption of 2,400 tonnes. This salt is being obtained from Mithapur at about Rs. 300 per tonne. In other words, the cost incidence on one tonne of sodium hydrosulphite on account of salt is Rs. 690. This high purity salt can be recovered from the waste liquor thrown out after the manufacture of Hydrosulphite if a Salt Recovery Plant is installed. Apart from the fact that this recovery of waste will considerably reduce costs, the factory is facing the problem of inadequate and irregular supplies of salt from Mithapur which difficulty would be overcome.

Salt recovery Plant.

47. The salt recovery plant is expected to cost Rs. 8.56 lakhs and is to be imported from Switzerland. Though an application for import was submitted in January, 1964, the Company has not received any import licence yet. The Company learns that the Government of India have included this item in the new Swiss credit and that the import licence is likely to be issued shortly.

48. The Committee hope that it would be possible to import this machine early and instal it at the fatcory. In this connection the Committee feel that due attention has not been paid to the matter of recovery of waste products when installing chemical factories. Though a waste recovery plant might not be a necessary adjunct, it has to be realised that the cost of recoverable wastes is loaded on the cost of the main product. A cost conscious factory would do every thing possible to reduce costs and wastage to the minimum. While planning the sodium hydrosulphite plant itself, the salt recovery plant could have been provided.

49. The Committee found that the question of recovery from waste had not been tackled in the Titanium Products Factory also at the appropriate time. *The Committee hope that in future, the companies will be conscious of this important matter and provide for recovery of waste products while making the initial planning.*

VI RESEARCH

50. The factory does not have any research laboratory of its own. There is a small laboratory which is used for quality control. The Committee were informed that it was intended to start a Research and Development Unit in the factory.

51. There are many chemical factories in the public sector in the Udyogamandal area, e.g., the F.A.C.T., the Indian Rare Earths Ltd., the D.D.T. Factory, the T.C.C., etc. It should be possible to organise a very good Research and Development Centre at Udyogamandal which will cater to the needs of all the public sector factories in that area. If desirable, this Centre could have specialised wings to cater to the particular needs of each factory. It could also provide a good technical library with foreign technical journals and books. The total cost of such a Centre could be apportioned between the factories.

52. The advantage of such a common Research Centre would mainly be its size and the facilities that it will provide. If each factory were to have a laboratory of its own, its size has naturally to be limited. A common research centre could be better equipped and provide pilot plant facilities when it grows.

53. It might be possible to interest the University of Kerala in this venture and provide facilities for research in chemistry at this Centre. Apart from reducing costs, research could be carried out on projects in which the factories are interested.

54. The Committee would also, in this connection stress the need for greater coordination between the various chemical factories in the public sector at Udyogamandal. For example, it might be possible to have a big common workshop to cater to the needs of all the factories. There could also be periodical Seminars of technical personnel in the form of a discussion forum where technical problems could be discussed with a view to encourage thinking on individual problems outside the organisation.

VII

FINANCE AND ACCOUNTS

Borrowing. Powers

55. Under Article 45 of the Memorandum and Articles of Association of the Company, the Board of Directors has absolute powers in regard to borrowings. It was stated during evidence that no reference need be made by the Company to Government in regard to this matter. However, Government exercised its influence in an indirect manner. The Board of Directors had a majority of Government nominees on it and when the Directors received notice of the business coming up before a Board they initiated a file on the subject, ascertained the views of the Departments concerned and even consulted the Minister in regard to the line of action to be adopted. At the Board meetings the Government nominees then spoke with one voice.

56. *The Committee doubt if this is the correct procedure to follow.* At a Board meeting, the pros and cons of a subject are discussed and perhaps the Managing Director explains why it is desirable to follow the suggested course of action in the interest of the Company. Based on their experience and the general policy followed by the Government, the Government Directors would reach a certain conclusion at the Board meetings and a majority decision will be taken. The practice of taking a decision before hand by Government, as is the case at present, has the disadvantage that differing views are not formulated or clarified before the conclusions are reached. Secondly, the commercial interests of a company might be compelling enough to justify a course of action which a Government Department might not be able to appreciate because of a conservative financial outlook, which is inherent in the system. This being so, the Committee feel that the present procedure of indirect influence by Government by taking a decision before a Board's meeting is not in the best interests of the Company.

57. *The Committee suggest that instead of granting absolute powers to the Board of Directors in respect of*

borrowings, the Articles of Association might be amended to provide a maximum limit beyond which Government's sanction would be required. In their application for such sanction the company could state their case fully to enable Government to come to a decision.

58. *The Committee have not examined the cases of other State Government Companies in this matter, but if they are identical, uniform provision can be made for all of them.*

59. *The Committee enquired into the following matters mentioned by the Company Auditors in their supplementary report (Vide Audit Report 1965, para 81, p. 101).* *Observations of Company Auditors.*

- (i) *There is nothing on record defining the duties and responsibilities of various officers in regard to the maintenance of accounts.*
- (ii) *There is no regular internal audit system and the present system of internal check does not appear to be satisfactory.*
- (iii) *Adequate financial provision has not been made for the maintenance of plant and machinery.*

60. *As regards (i) above, the Committee were informed that the exact functions of the various officials concerned in regard to accounts have now been laid down in writing and that these orders had been incorporated in a Manual which was shortly to be published. The Committee were also informed that the senior-most officer incharge of finance and accounts in the Company was the Secretary and that he was a qualified Chartered Accountant.*

61. *The Committee hope that the Manual will rectify the shortcomings pointed out by the Company Auditors. It is desirable that the powers, duties and obligations of every concerned official in regard to financial matters should be defined in writing. This is necessary not only in the interests of efficiency and smooth functioning of the organisation but will enable the fixing of responsibility for each act of commission or omission. Audit also will have a clear picture of the financial powers and responsibility at each level and this will enable them to come to correct conclusions relating to the propriety or otherwise of financial transactions. The Committee would suggest that Government should see that a model comprehensive*

Manual is prepared and made applicable to all the public undertakings of the State.

62. As regards internal audit, the Committee were informed that there was an internal checking system though it was not called internal audit. The Managing Director informed the Committee that it was proposed to completely reorganise the procedure in this regard and he hoped that it would be done within a year.

63. *The Committee do not understand why it should take one year to organise a good internal audit system in the Company. The Management could study the procedure in a company where such a system is working efficiently and then attempt to copy it with the required modifications. This could be accomplished within a few months.*

64. The Committee enquired into the question of provision of funds for maintenance of plant and machinery and found that Rs. 6.25 lakhs had been provided for this purpose in 1964-65 out of which Rs. 5.44 lakhs had been spent. For 1965-66, a sum of Rs. 8.8 lakhs had been provided, the addition being due to the fact that the machinery was getting older and required greater attention. The Committee were informed that preventive maintenance work was done though there were no schedules drawn up for this work. There were a few breakdowns and the causes were usually investigated and preventive action taken.

65. *The Committee would suggest that a regular maintenance schedule should be drawn instead of doing this work on an ad hoc basis.*

NEW DELHI;
March 11, 1965.

D. N. TIWARY,
Chairman,

Phalguna 20, 1887 (S). Committee on Public Undertakings.

APPENDIX

Summary of conclusions/recommendations of the Committee on Public Undertakings contained in the Report.

S. No.	Ref. to para No. in the Report	Summary of conclusions/ recommendations.
1	2	3
1	7-8	By selling chlorine at less than the cost of production there is no loss actually to the company. The pricing of caustic soda is done in such a way that the cost difference on chlorine is added on it. The loss on chlorine is therefore only a theoretical loss. The reason for entering into a long term contract was that they would have a standing customer, which was an advantage, as chlorine was likely to operate on a buyers' market for some years to come. This action of TCC appears to be justified under the circumstances.
2	10-13	<p>(i) As regards the possibility of exporting chlorine the Committee were informed that liquid chlorine and hydrochloric acid could be exported but lack of containers was a big handicap. As this is an all-India problem, the Committee would desire the Government of India to study it in detail. With the development of the iron and steel industry, it should be possible to manufacture the necessary containers in this country.</p> <p>(ii) The Tariff Commission had recommended that it would be desirable to offer export incentives inclusive of freight concessions. The Committee would also urge the Government of India to give due consideration to this aspect. As the price of liquid chlorine will be lower than the cost price, the export price can be equated to the international price as the manufacturers will still be gaining something.</p> <p>(iii) Being located near a major Port, the TCC has apparently an advantage over other manufacturers in so far as they can save on the freight for transport to the Port. The Commit-</p>

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tee hope that the company will make all efforts to export liquid Chlorine.

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(i) As regards the suggestion of the Tariff Commission to locate an ancillary industry to manufacture chlorine based products, the Committee hope that serious consideration will be given to this matter by the State Government. Private industrialists may be offered incentives and necessary facilities for starting a chlorine based industry at Alwaye or near-about or else, TCC itself may think of starting an ancillary unit after carrying out economic feasibility studies.

(ii) The Committee feel that it would be possible to build up an export oriented industry as for instance the manufacture of benzene hexachloride. There should be other such chloride based products which have good export possibilities. The D.G.T.D. and the Ministry of Commerce might make a study of this matter in consultation with other manufacturers.

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The Committee hope that the S.T.C. will appreciate the urgency of the requirements and arrange for immediate import of necessary quantity of mercury for the T.C.C. In fact the Committee would also suggest, in view of the soaring world prices, that the S.T.C., imports sufficient quantities of mercury to enable adequate stockpile in the country.

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It was brought to the notice of the Committee that since the S.T.C. imported the mercury to Bombay, the Company has to pay 1-1/8 per cent additional freight plus insurance from Bombay to Cochin as compared to direct shipments to Cochin as was done previously. Besides, the import via Bombay involved the payment of Bombay Sales Tax of 5 per cent. These additional expenses were besides the commission payable to the S.T.C. The Committee feel that this additional burden to the Company should be lessened to the extent possible. It is suggested that the S.T.C. may import mercury required for the T.C.C. directly to Cochin instead of importing it to Bombay, and later shipping it to Cochin.

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6	22	<p>The Committee hope that the Company will take all measures to reduce the consumption of mercury, graphite and other imported raw materials. It might be useful for the Company to compare their consumption figures with other caustic soda manufacturers using the same process.</p>
7	24	<p>The Committee understand that the Rourkela Steel Plant is unable to meet the demands of black sheets in the country and that it has not been possible for the Plant to effect regular supplies of sheets to the T.C.C. because of the low priority accorded by the Steel Priorities Committee to the caustic soda industry. The Committee, however, consider it a matter of regret that foreign exchange should be wasted on importing these sheets when our steel industry has grown to considerable dimensions and is capable of producing them. The Committee suggest that the H.S.L. should find ways and means to manufacture adequate quantities of black sheets to meet the requirements of the country.</p>
8	26	<p>The F.A.C.T. are shareholders in the T.C.C. and should have taken adequate precaution to ensure that the supplies of sulphur dioxide to the T.C.C. were made in accordance with the requirements. The Managing Director stated in his evidence before the Committee that the F.A.C.T. had undertaken to effect uninterrupted supplies in future. The Committee would suggest that this assurance should be reduced to an agreement in writing with suitable penalty provisions.</p>
9	28	<p>Apart from the cost of Chlorine, there are several avenues for cost reduction to which the Company should pay close attention.</p>
10	31	<p>Though the report of the Management Consultants was submitted in November 1963 and it had cost the company Rs. 38,250, nothing substantial had been done by the Company to implement the proposals made therein. The Committee would like to draw the attention of the Management to the necessity of fixing quickly the norms of work and laying down the staff</p>

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strength for the expansion stage in accordance with these norms. If such an action is not taken now, the company will be faced with larger surplus staff after the expansion when it will be impossible to absorb them.

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The Committee would suggest that suitable rewards be paid for such suggestions as are accepted and that an amount be set apart for this purpose in the Budget.

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The Committee hope that besides the measures taken by the Management for reducing costs, the company will always explore possibilities of cost reduction and implement concrete proposals as soon as they are accepted. As regards the installation of mechanical handling facilities at the jetty, the Committee hope that action will be expedited.

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There is a great necessity to reduce costs because of the further difficulties of selling the extra Chlorine that will be produced after expansion. In this connection the Committee were not satisfied with the methods of costing done at the company. The Management should get more frequent cost and material consumption reports to show how costs on each item were working out so that variations are taken care of promptly. Besides, such break-up of costs into their elements will enable the Management to tackle individual costs separately and take necessary measures for cost reduction. The Managing Director of the company, during his evidence before the Committee admitted that the cost accounting system was capable of being streamlined to be more beneficial to the Management. The Committee desire that prompt action be taken in this direction.

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43-45

(i) In regard to the damage to the transformer and the efforts made to repair it the Committee are not very happy over the matter, judging from the facts available. Firstly, for a transformer to get damaged by lightning is a rare occurrence as such equipment is usually fitted with proper lightning arresters. Assuming that such an accident did happen, the law of probability is against a second occurrence unless

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the fault lay in the equipment itself. That the manufacturers have suggested an alteration in the design in order to safeguard against such accidents is a pointer to the fact that the equipment was defective or it was installed without taking sufficient precautions against lightning. It is apparent that the T.C.C. had not made an enquiry into this matter. The Company should nowever get the equipment thoroughly checked by an expert after the transformer has been repaired and satisfy itself that adequate precautions against damage by lightning have been provided for. In the meantime an expert should be asked to check the three other transformers as regards their location and vulnerability to lightning.

(ii) The second matter arising from this case is the delay. In February, 1966, almost 14 months had lapsed since the transformer had gone out of commission and yet there was nothing definite about the date when it would be reinstalled after repairs. The foreign exchange had not been released. The necessary export-import licence had to be procured and the shipment arranged. At the present rate of progress, it appears that the company would not be able to instal the transformer till the end of the year, by which time 2 years would have passed, or in terms of production, a loss of Rs. 80 lakhs and Rs. 10 lakhs in profits.

The Committee hope that the Government of India will expedite such cases. Such requests for foreign exchange should be balanced with the cost of imports required because of lack of internal production resulting from the want of some minor repair of equipment. Release of foreign exchange in such cases should get top most priority and the cases should be dealt with expeditiously. Procedures of this nature should be streamlined so that industrial production does not suffer which in turn results in spending larger amounts of foreign exchange on imports to make up for the loss of production at home.

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48-49

(i) The Committee hope that it would be possible to import the Salt recovery machine early and instal it at the factory. In this connection

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the Committee feel that due attention has not been paid to the matter of recovery of waste products when installing chemical factories. Though a waste recovery plant might not be a necessary adjunct it has to be realised that the cost of recoverable wastes is loaded on the cost of the main product. A cost conscious factory would do every thing possible to reduce costs and wastage to the minimum. While planning the sodium hydro-sulphite plant itself, the salt recovery plant could have been provided.

(ii) The Committee found that the question of recovery from waste had not been tackled in the Titanium Products Factory also at the appropriate time. The Committee hope that in future, the companies will be conscious of this important matter and provide for recovery of waste products while making the initial planning.

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51-52

There are many chemical factories in the public sector in the Udyogamandal area, e.g. the F.A.C.T., the Indian Rare Earths Ltd., the D.D.T. Factory, the T.C.C., etc. It should be possible to organise a very good Research and Development Centre at Udyogamandal which will cater to the needs of all the public sector factories in that area. If desirable, this Centre could have specialised wings to cater to the particular needs of each factory. It could also provide a good technical library with foreign technical journals and books. The total cost of such a Centre could be apportioned between the factories.

The advantage of such a common research Centre would mainly be its size and the facilities that it will provide. If each factory were to have an laboratory of its own, its size has naturally to be limited. A common research Centre could be better equipped and provide pilot plant facilities when it grows.

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It might be possible to interest the University of Kerala in regard to the establishment of common laboratory and provide facilities for research in chemistry at this Centre. Apart from reducing costs, research could be carried

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out on projects in which the factories are interested.

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The Committee would stress the need for greater coordination between the various chemical factories in the public sector at Udyogamandal. For example, it might be possible to have a big common workshop to cater to the needs of all the factories. There could also be periodical Seminars of technical personnel in the form of a discussion forum where technical problems could be discussed with a view to encourage thinking on individual problems outside the organisation.

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57-58

(i) The Committee suggest that instead of granting absolute powers to the Board of Directors in respect of borrowings, the Articles of Association might be amended to provide a maximum limit beyond which Government's sanction would be required. In their application for such sanction the company could state their case fully to enable Government to come to a decision.

(ii) The Committee have not examined the cases of other State Government Companies in this matter, but if they are identical, uniform provision can be made for all of them.

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The Committee hope that the Manual being prepared by the company will rectify the shortcomings pointed out by the Company Auditors in regard to maintenance of accounts. It is desirable that the powers, duties and obligations of every concerned official in regard to financial matters should be defined in writing. This is necessary not only in the interest of efficiency and smooth functioning of the organisation but will enable the fixing of responsibility for each act of commission or omission. Audit also will have a clear picture of the financial powers and responsibility at each level and this will enable them to come to correct conclusions relating to the propriety or otherwise of financial transactions. The Committee would suggest that Government should see that a model comprehensive Manual is prepared and made applicable to all the public undertakings of the State.

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21	62-63	The Managing Director informed the Committee that it was proposed to completely reorganise the procedure in regard to internal audit and he hoped that it would be done within a year. The Committee do not understand why it should take one year to organise a good internal audit system in the Company. The Management could study the procedure in a company where such a system is working efficiently and then attempt to copy it with the required modifications. This could be accomplished within a few months.
22	65	The Committee would suggest that a regular maintenance schedule should be drawn instead of doing this work on an <i>ad hoc</i> basis.

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29.	Oxford Book & Stationery Company, Scindia House, Connaught Place, New Delhi.—1	68	34.	Shri N. Chaoba Singh, News Agent, Ramlal Paul High School annam, Imphal.	7
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