GOVERNMENT OF INDIA
TARIFF COMMISSION

# REPORT

# On the Fair Selling Prices of Caustic Soda Chlorine, Hydrochloric Acid and Bleaching Powder



BOMBAY, 1958

DIA, BY THE MANAGER, GOVT. OF INDIA PRESS,
BLISHED BY THE MANAGER OF PUBLICATIONS, DELHI,
1960

## PERSONNEL OF THE COMMISSION

| | | |
|---|---|---|
| SHRI C. RAMASUBBAN | ... ... | *Chairman* |
| DR. S. K. MURANJAN, D.SC. (LONDON) | ... | *Member* |
| SHRI J. N. DUTTA | ... ... | *Member* |
| SHRI R. S. BHATT | ... ... | *Member* |

## SECRETARY

DR. RAMA VARMA

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE AND INDUSTRY

# RESOLUTION

## Tariffs

*New Delhi, the 27th October,* 1959.

**No. CH(I)-31(36)/58.**—The Tariff Commission has submitted its Report on the fair selling prices of caustic soda, chlorine, hydrochloric acid and bleaching powder on the basis of an enquiry undertaken by it under section 12(d) of the Tariff Commission Act, 1951. After examination of the cost of production of caustic soda in all forms and of allied products in representative units, the Tariff Commission in its report has made the following recommendations regarding the fair selling prices which will be in force till December, 1960. These are ceiling prices which no unit should be allowed to exceed but may lower if the exigencies of their business require them to do so.

(i) The fair selling price of fused solid caustic soda to be Rs. 35 per cwt.

(ii) The fair selling price of caustic lye on the basis of 100% NaOH content to be Rs. 25·80 per cwt. The price includes filling charges, but not the cost of rental of containers.

(iii) The fair selling price of caustic soda flakes to be Rs. 40 per cwt.

(iv) The fair ex-works price of dry gas chlorine, naked, supplied for the manufacture of chlorinated products within the factory or in adjacent units to be Rs. 13 per cwt.

(v) The fair selling price of liquid chlorine in returnable containers inclusive of filling charges to be Rs. 22·20 per cwt.

(vi) The fair selling price of commercial grade hydrochloric acid, naked, inclusive of filling charges to be Rs. 10·80 per cwt.

(vii) The fair selling price of bleaching powder to be Rs. 24·20 per cwt. This price should be applied both to stable and unstable bleaching powder. With a view to reducing the gap between the fair selling price of domestic bleaching powder and that of the imported product to the maximum extent possible, Government should consider the possibility of permitting imports of bleaching powder free of duty. If this suggestion is not acceptable, a pool operated by the State Trading Corporation will be the only way of reconciling the two desperate prices relating to imported and domestic bleaching powder. The State Trading Corporation should acquire the entire indigenous production of bleaching powder at the fair ex-Works price of Rs. 23·20 per cwt., pool the imported and indigenous

product and sell it through established distributors at a fair average price after providing for administrative charges and selling commission.

2. While the recommendations of the Tariff Commission were being examined it was pointed out that there were various advantages in the sale of caustic soda in liquid form as the production of caustic soda lye has substantial saving in fuel as well as steel, which are needed for packing the solid caustic soda in drums. From the point of view of the consumer also, use of caustic soda lye has many advantages as it is ready for use and can be transported in tank wagons for this purpose. At present, some of the manufacturers are selling caustic soda in liquid form at a price more or less in parity with that of imported solid caustic soda except in a few places where there are long haulages. The selling price charged by the manufacturers varies from Rs. 31 per cwt. to Rs. 37 per cwt. It was felt that the price structure should be so fixed so as to provide an incentive for the increased use of caustic soda in liquid form in view of the advantages both to the producer and to the consumer. The Tariff Commission was, therefore, addressed again in the matter with the suggestion that it might be an advantage if the benefits of the cheaper cost of production of liquid caustic soda as against fused caustic soda were shared more or less equally by the manufacturer and the consumer. In other words, while, the consumer would benefit by the price drop in caustic soda in liquid form, the producer would also find it more advantageous to concentrate on the production of caustic soda in liquid form and thereby effect substantial saving in fuel and steel for packing the caustic soda as fused solid. The Tariff Commission after considering this matter has suggested that the fair selling price of caustic soda lye may be fixed as Rs. 29 per cwt. on 100% strength basis in the form of liquid. In the case of solid and flakes, the price will be for material of purity of ISI specification.

3. The Government accept recommendations (i) to (vi) in para 1 above subject to the modification indicated in para 2 regarding the fair selling price of caustic soda lye. The attention of the industry is also invited to these recommendations.

4. These prices are ceilings for selling prices for purchases ex-factory either directly or through agents or distributors of the manufacturers, and will be effective from the date of this Resolution.

5. As regards Bleaching Powder, the Government is examining the matter with reference to the recommendations of the Tariff Commission and their decision will be made known in due course.

## ORDER

ORDERED that a copy of the Resolution be communicated to all concerned and that it be published in the *Gazette of India.*

S. RANGANATHAN,
*Secretary to the Government of India.*

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE AND INDUSTRY

*New Delhi, the 31st May, 1960.*

## RESOLUTION

**No. CH-31(44)/59.**—In paragraph 5 of their Resolution dated the 27th October, 1959, on the Tariff Commission's Report on the fair selling prices of Caustic Soda, Chlorine, Hydro-chloric Acid and Bleaching Powder, Government had announced that they were examining the Commission's recommendations in regard to Bleaching Powder and that their decision will be announced in due course. Since then, the Mettur Chemicals and Industrial Corporation Limited, the only indigenous unit at present manufacturing Stable Bleaching Powder, had made certain representations. These have also been considered in consultation with the Tariff Commission.

2. It is observed that the annual production has been falling since 1956-57. Government are not fully satisfied that the drop in production was altogether unavoidable and consider that the fair ex-works price should be based on a level of production not less than the maximum already attained by the factory. Taking into account all the relevant factors, Government have decided that the fair ex-works selling prices for different bulk packings entering the wholesale trade should be as below. These prices will be subject to the review by the Tariff Commission as and when due.

| Size of packing. | Fair ex-works selling price Rs. nP. |
|---|---|
| 100 Kgs. | 51·80 |
| 55 ,, | 29·65 |
| 25 ,, | 14·75 |
| 12·5 ,, | 8·60 |
| ·3 ,, | 2·85 |
| 1·5 ,, | 1·60 |
| 0·5 ,, | 0·85 |
| 0·25 ,, | 0·75 |

The prices mentioned above are ceilings for selling prices for purchases ex-factory either directly or through agents or distributors of the manufacturers and will be effective from 1st June, 1960. The industry should keep a careful watch and control over its distributors and dealers, give preference to *bonafide* consumers and also give wide publicity to its prices.

3. In regard to the unstable variety of Bleaching Powder, the Commission has not found it necessary to work out the representative cost for the Industry as a whole. The Commission has, however, observed

(i) that when the expansion of the Stable Bleaching Powder Plant of Mettur Chemicals is completed, the production and offtake of Unstable Bleaching Powder will be insignificant, (ii) that the unstable variety would ordinarily fetch a lower price than the stable variety the price differential being Rs. 5:00 per cwt. under the prevailing market conditions, and (iii) that it will be sufficient if the industry is urged to continue such a fair differential without Government fixing a price for the unstable variety of Bleaching Powder. Government agree with these observations of the Commission in regard to unstable Bleaching Powder. The attention of the industry is invited to these observations and it is urged to maintain a fair price differential in favour of Unstable Bleaching Powder.

4. The suggestions originally made by the Tariff Commission for removal of import duty on Bleaching Powder or the State Trading Corporation taking over the purchase and sale of both the imported and indigenous Bleaching Powder have no validity in the circumstances now prevailing and the Commission has agreed that these need not now be considered.

*ORDER*

ORDERED that a copy of the Resolution be communicated to all concerned and that it be published in the Gazette of India.

S. RANGANATHAN,
*Secretary to the Government of India.*

## CONTENTS



# REPORT ON THE FAIR SELLING PRICES OF CAUSTIC SODA, CHLORINE, HYDROCHLORIC ACID AND BLEACHING POWDER

**Reference to the Commission**

1. In their letter No. HC 31(11)/57 of 8th February, 1958 (reproduced in the Appendix) Government of India in the Ministry of Commerce and Industry requested us under Section 12(d) of the Tariff Commission Act, 1951, to make an inquiry into the fair ex-works prices as also the fair selling prices of the following products:—

(i) *Caustic soda* (a) flakes, (b) fused solid and (c) 50 per cent solution.

(ii) *Chlorine* (a) as gas supplied for the manufacture of chlorinated products within the factory or in adjacent units, (b) liquid chlorine, in cylinders.

(iii) *Hydrochloric acid.*

(iv) *Bleaching powder.*

The inquiry was undertaken by us concurrently with that pertaining to continuance of protection to the caustic soda and bleaching powder industry. As stated in paragraphs 2.3 and 15.1.1. of our Report dated 27th September, 1958 on the continuance of protection, we furnish in this report information relating to costs of production, our estimates of fair ex-works prices and our recommendations concerning fair selling prices of the products referred to above.

**Method of determination of fair ex-works prices**

2.1. Our Cost Accounts Officers examined the costs of production of the various products for which fair ex-works prices had to be determined by us at the undermentioned five factories:—

| Name of unit | Name of Cost Accounts Officer | Date of Cost Examination |
|---|---|---|
| Tata Chemicals Ltd. . . . . | Shri S. K. Basu . . | 17-6-1958 to 21-6-1958 |
| D. C. M. Chemical Works . . . . | Shri S. V. Rajan . . | 1-7-1958 to 10-7-1958 |
| Alkali & Chemical Corporation of India Ltd. | Shri P. M. Menon . | 10-7-1958 to 25-7-1958 |
| Mettur Chemical and Industrial Corporation Ltd. | Shri U. R. Padmanabhan | 30-7-1958 to 7-8-1958 |
| Travancore-Cochin Chemicals (Private) Ltd. | Shri S. R. Mallya . . | 23-7-1958 to 1-8-1958 |

On the basis of the data collected by the Cost Accounts Officers we arrived at estimates of future costs and fair ex-works prices after discussing the costs relating to each unit individually with the representatives of the unit. The reports of our Cost Accounts Officers are forwarded to Government as confidential enclosures to this report. The above units are referred to in subsequent portions of this report by the following abbreviations:—

| | |
|---|---|
| Alkali & Chemical Corporation of India Ltd. | ACCI. |
| Delhi Cloth Mills, Chemical Works | DCM. |
| Mettur Chemical & Industrial Corporation Ltd. | Mettur. |
| Tata Chemicals Ltd. | Tatas. |
| Travancore-Cochin Chemicals Private Ltd. | TCC. |

2.2. Of the five producers whose costs have been examined, Tatas alone manufactures *chemical* caustic soda; Tatas and the rest manufacture the product by the *electrolytic* process. Of those that manufacture electrolytic caustic soda, TCC employs mercury cells and makes rayon grade material of more than 98 per cent NaOH concentration. In the electrolytic process of manufacture, approximately one ton of chlorine is generated as a co-product for every 1.127 tons of caustic soda produced, and hence the costs of production up to and including the cell house stage and cost of drying chlorine are divided between chlorine and caustic soda in proportion to the generated weights. All expenditure subsequent to the cell house stage incurred specifically on caustic soda and chlorine is charged directly to each of these products. As regards unutilised chlorine we have adopted a procedure similar to the one followed at the time of the last inquiry in 1954, and have treated the loss on the wastage of chlorine as a special element in the cost of production of caustic soda. The cost of unutilised chlorine and the cost of disposal of waste chlorine are both included in the special element in the estimates of fair ex-works prices of all the units. As regards TCC the loss on its sales of chlorine and hydrochloric acid at specially low rates to two companies under long-term agreements is also included in arriving at its fair prices. The justification for this is explained later at the appropriate place in this report.

2.3. While scrutinising the costs of production of the several products for the various units and framing estimates of future costs, we have followed the general principles applied by us to other chemical industries. The production in each unit has been assessed for future after taking into account all relevant factors such as the results that are likely to be achieved by the installation of additional equipment and the pattern of chlorine utilisation. Consumption of materials, power and fuel, are estimated after taking into account previous experience and technical possibilities. The latest rates at which raw materials and consumable stores were purchased by each unit have been

adopted for future estimates, while provision has also been made for possible increases in price levels on the basis of known trends. Estimates of wages and establishment charges have been made on the basis of figures relating to the period investigated, and provision made to cover the incidence of normal annual increments. Depreciation has been calculated at normal income tax rates on written down values of fixed assets.

**Works cost of production—actuals and future estimates**

3. In this paragraph we furnish brief financial particulars relating to each of the five companies referred to in paragraph 2. 1, the periods for which costs were examined in each unit, the base periods on which future estimates were framed, the products for which costs were determined, and information relating to actual works costs and future estimates.

*Alkali & Chemical Corporation of India Ltd.*

3.1. ACCI is a public limited company registered in 1937 with authorised capital of Rs. 5 crores and paid-up capital, as on 30th September, 1957, of Rs. 279.42 lakhs. Its specific and general reserves as at that date amounted to Rs. 98.65 lakhs while bank borrowings aggregated Rs. 39.66 lakhs. In 1955, 1956 and 1957 the Company declared tax-free dividends of 8 per cent each year. The Secretaries of the Company are Imperial Chemical Industries (India) Private Ltd.

3.1.1. Examination of costs was made for the year ended September 1957 and for the six months ended March 1958. Our estimates of future costs and fair ex-works prices were made on the basis of the data relating to the latter period. The products for which costs were determined are caustic lye, caustic soda fused solid, gas chlorine, liquid chlorine and hydrochloric acid.

3.1.2. The present annual rated capacity of ACCI is 5,280 tons for caustic soda, 4,290 tons for liquid chlorine and 720 tons for 100 per cent. hydrochloric acid. The actual production of several products during the period of cost examination and the production estimated by us for the future are stated in the tabular statements which follow. The manufacture of fused solid caustic soda is not a regular feature of the Company's production programme and it was unable to assess the quantum of its future output. The estimate was therefore confined to the probable output based on that during the first six months of the year 1957-58.

3.1.3. We give below the figures relating to actual works costs per ton of the various products referred to in paragraph 3.1.1. and our estimates under salient heads.

3.1.3.1. *Caustic lye (100 per cent NaOH) and caustic soda fused solid*:

(Rs. per ton)

| | Lye | | | Solid | | |
|---|---|---|---|---|---|---|
| | Actuals | | Estimate for future | Actuals | | Estimate for future |
| | 1956-57 | 1957-58 (six months) | | 1956-57 | 1957-58 (six months) | |
| Productions in tons | 5633 | 2768 | 6000 | 458 | 51 | 102 |
| (i) Raw materials | 139.21 | 160.77 | 132.72 | 135.03 | 158.36 | 130.73 |
| (ii) Power and fuel | 184.34 | 218.19 | 224.88 | 203.97 | 231.79 | 241.33 |
| (iii) Other conversion charges | 199.08 | 240.79 | 224.78 | 324.29 | 486.96 | 471.28 |
| (iv) Depreciation | 84.87 | 79.32 | 73.18 | 109.72 | 106.28 | 100.23 |
| (v) Total | 607.50 | 699.07 | 655.56 | 773.01 | 983.39 | 943.57 |
| (vi) *Less* credit for materials recovered, etc. | 194.54 | 221.99 | 211.75 | 188.71 | 218.67 | 208.57 |
| (vii) Net total | 412.96 | 477.08 | 443.81 | 584.30 | 764.72 | 735.00 |
| (viii) Packing | nil | nil | nil | 67.16 | 69.26 | 69.25 |
| (ix) Total works cost | 412.96 | 477.08 | 443.81 | 651.46 | 833.98 | 804.25 |

In estimating costs for the future we have assumed the price of salt at Rs. 67 per ton which is much higher than for other units due to heavy transport charges from Saurashtra and Kutch to Calcutta. The rate for electricity is assumed at 5.125 nP per unit. Estimated consumption of electricity, however, is very low, being only 2829 units per ton of solid caustic soda production. The cost of waste chlorine (which is less than one per cent) after conversion into bleach liquor is not shown separately but is included in the cost of liquid chlorine. This wastage is stated to represent the loss incidental to the process as well as disposal of the residual chlorine in empty containers.

3.1.3.2. *Gas chlorine and liquid chlorine*:

(Rs. per ton)

| | Gas | | | Liquid | | |
|---|---|---|---|---|---|---|
| | Actuals | | Estimate for future | Actuals | | Estimate for future |
| | 1956-57 | 1957-58 (six months) | | 1956-57 | 1957-58 (six months) | |
| Production in tons | 5245 | 2570 | 5550 | 4738 | 2289 | 5000 |
| (i) Raw materials | 70·26 | 81·41 | 67·43 | 213·34 | 245·20 | 232·52 |
| (ii) Power and fuel | 58·65 | 67·54 | 76·89 | 7·43 | 9·84 | 9·84 |
| (iii) Other conversion charges | 61·87 | 73·06 | 68·80 | 63·74 | 76·41 | 70·38 |
| (iv) Depreciation | 17·88 | 16·73 | 15·48 | 40·43 | 38·42 | 35·18 |
| (v) Total | 208·66 | 238·74 | 228·60 | 324·94 | 369·87 | 347·92 |
| (vi) *Less* credits | 0·24 | 0·31 | 0·28 | 8·96 | 10·04 | 9·20 |
| (vii) Net total | 208·42 | 238·43 | 228·32 | 315·98 | 359·83 | 338·72 |
| (viii) Packing | .. | .. | .. | 32·92 | 39·20 | 38·17 |
| (ix) Total works cost | 208·42 | 238·43 | 228·32 | 348·90 | 399·03 | 376·89 |

As regards item No. viii (Packing) the amounts indicated under liquid chlorine represent the cost of filling and maintenance of containers of various sizes which are returnable. ACCI uses gas chlorine for the manufacture of liquid chlorine and hydrochloric acid.

3.1.3.3. *Hydrochloric acid (commercial grade)*:

(Rs. per ton)

| | Actuals | | Estimate for future |
|---|---|---|---|
| | 1956-57 | 1957-58 (six months) | |
| Production in tons | 1579 | 872 | 1800 |
| (i) Raw materials | 64·26 | 73·08 | 70·35 |
| (ii) Power and fuel | 1.95 | 3·26 | 3·36 |
| (iii) Other conversion charges | 116.72 | 149.97 | 145.40 |
| (iv) Depreciation | 16.79 | 14.88 | 14.42 |
| (v) Total works cost | 199.72 | 241.19 | 233.53 |

*Delhi Cloth Mills Chemical Works*

3.2. DCM Chemical Works is a factory belonging to Delhi Cloth and General Mills Co. Ltd., which is a public limited company registered in 1889. The caustic soda plant is one of the units included in the DCM Chemical Works. The Managing Agency company is Bharat Ram Charat Ram & Co. Private Ltd. The authorised capital of Delhi Cloth & General Mills Co. Ltd., as at 30th June 1957 was Rs. 7 crores and paid-up capital Rs. 4.09 crores. Its specific and general reserves as at the above date aggregated Rs. 307 lakhs. Debentures amounted to Rs. 100 lakhs and unsecured loans aggregated Rs. 181 lakhs. In 1955, 1956 and 1957 the Company declared tax-free dividends of 9 per cent, 10 per cent and 8 per cent respectively to its ordinary shareholders.

3.2.1. Examination of costs was made for the year ended June 1957 and for the eight months ended February 1958. Our estimation of future costs and fair ex-works prices was made on the basis of the data relating to the former period. The products for which costs were determined are caustic lye, caustic soda fused solid, caustic soda flakes, gas chlorine, liquid chlorine and hydrochloric acid.

3.2.2. The present annual rates capacity of DCM is 9240 tons for caustic soda, 8000 tons for liquid chlorine and 1320 tons for 100 per cent hydrochloric acid. The actual production of the several products during the periods of cost examination and the production estimated by us for the future are stated in the tabular statements which follow.

3.2.3. We give below the figures relating to the actual works costs per ton of the various products referred to in paragraph 3.2.1. and our estimates under salient heads.

3.2.3.1. *Caustic lye* (100% *NaOH*,) *caustic, soda fused solid and caustic soda flakes*:

(Rs. per ton)

| | Lye | | | Solid | | | Flakes | | |
|---|---|---|---|---|---|---|---|---|---|
| | Actuals | | Estimate for future | Actuals | | Estimate for future | Actuals | | Estimate for future |
| | 1956-57 | 1957-58 (eight months) | | 1956-57 | 1957-58 (eight months) | | 1956-57 | 1957-58 (eight (months) | |
| Production in tons | 6876 | 4432 | 10436 | 2744 | 1916 | 6260 | 806 | 757 | 1200 |
| (i) Raw materials | 103.72 | 104.89 | 104.53 | 104.53 | 105.30 | 105.13 | 105.02 | 105.81 | 105.64 |
| (ii) Power & Fuel | 289.99 | 340.12 | 301.54 | 328.96 | 379.57 | 324.96 | 336.69 | 387.31 | 332.14 |
| (iii) Other conversion charges | 203.73 | 252.62 | 196.98 | 274.63 | 306.27 | 245.30 | 305.21 | 323.91 | 265.55 |
| (iv) Depreciation | 52.90 | 48.61 | 63.46 | 59.04 | 53.51 | 74.06 | 59.33 | 53.76 | 73.12 |
| (v) Total | 650.34 | 746.24 | 666.51 | 767.16 | 844.65 | 749.45 | 806.25 | 870.79 | 776.45 |
| (vi) *Less* credits for materials recovered, etc. | 264.16 | 304.10 | 267.66 | 266.20 | 305.30 | 268.56 | 267.49 | 306.76 | 271.35 |
| (vii) Net Total | 386.18 | 442.14 | 398.85 | 500.96 | 539.35 | 480.89 | 538.76 | 564.03 | 505.10 |
| (viii) Packing | .. | .. | .. | 27.35 | 28.66 | 30.83 | 84.80 | 92.04 | 90.82 |
| (ix) *Add* cost of Un-utilised Chlorine | 3.88 | 8.99 | 12.54 | 3.91 | 9.02 | 12.62 | 3.93 | 9.07 | 12.68 |
| (x) Total works cost | 390.06 | 451.13 | 411.39 | 532.22 | 577.03 | 524.34 | 627.49 | 665.14 | 608.60 |

The cost of salt is assumed in our estimates at Rs. 52.40 per ton, and rate for electricity at 6.50 nP per unit. About 70 per cent of the Company's requirements of electricity is generated in its own thermal plant, and the balance of 30 per cent is purchased from the Delhi State Electricity Board. The consumption of electricity is estimated at 3819 units per ton of solid caustic soda production. The percentages of chlorine not utilised by the unit during the two periods for which costs were investigated were 2 and 3 respectively. The Company represented that the percentage in the future would be of the order of 19.5, but we saw no valid reason for accepting so high a figure. In the circumstances we have allowed for chlorine wastage only to the extent of 5 per cent in our future estimate. The Company has a long-term agreement in force for six years from the date of initial supply with Hindusthan Insecticides Ltd., Delhi to supply gas chlorine and liquid chlorine at the rate of two annas per lb. of gas and 3⅓ annas per lb. of liquid. This arrangement does not call for any provision being made by us for losses arising from sale of chlorine.

3.2.3.2. *Gas chlorine and liquid chlorine*:

(Rs. per ton)

| | Gas | | | Liquid | | |
|---|---|---|---|---|---|---|
| | Actuals | | Estimate for future | Actuals | | Estimate for future |
| | 1956-57 | 1957-58 (eight months) | | 1956-57 | 1957-1958 (eight months) | |
| Production in tons | 6284 | 3994 | 9551 | 5361 | 3199 | 6767 |
| (i) Raw materials | 53.30 | 53.87 | 53.68 | 260.49 | 311.17 | 273.39 |
| (ii) Power and fuel | 109.99 | 129.72 | 114.85 | 8.91 | 11.92 | 9.22 |
| (iii) Other conversion charges | 95.00 | 118.78 | 92.94 | 53.71 | 69.38 | 53.45 |
| (iv) Depreciation | 17.68 | 16.28 | 21.11 | 35.45 | 35.76 | 20.82 |
| (v) Total | 275.97 | 318.65 | 282.58 | 358.56 | 428.23 | 356.88 |
| (vi) *Less* credit for materials recovered etc. | 11.39 | 12.08 | 8.19 | .. | .. | .. |
| (vii) Total works cost | 264.58 | 306.57 | 274.39 | 358.56 | 428.23 | 356.88 |

DCM uses gas chlorine for the manufacture of liquid chlorine and hydrochloric acid. As regards liquid chlorine we are not in a position to indicate separately the expenses relating to packing charges as these have been merged in the other elements of costs.

### 3.2.3.3. *Hydrochloric acid (commercial grade)*:

(Rs. per ton)

| | Actuals | | Estimate for future |
|---|---|---|---|
| | 1956-57 | 1957-58 (eight months) | |
| Productions in tons | 1410 | 1021 | 2220 |
| (i) Raw materials | 116.94 | 133.20 | 122.48 |
| (ii) Power and fuel | 1.22 | 1.50 | 1.29 |
| (iii) Other conversion charges | 27.51 | 35.07 | 24.52 |
| (iv) Depreciation | 13.19 | 10.33 | 10.63 |
| (v) Total works cost | 158.86 | 180.10 | 158.92 |

*Mettur Chemical & Industrial Corporation, Ltd.*

3.3. Mettur is a public limited company registered in 1936 with an authorised capital of Rs. one crore, and paid-up capital of Rs. 60.50 lakhs as at 31st March 1958. The Managing Agents of the Company are Seshasayee Brothers (Private) Ltd. Mettur's specific and general reserves as at the above date amounted to Rs. 11.90 lakhs, and borrowings aggregated Rs. 15.39 lakhs. The Company paid tax-free dividends to its ordinary shareholders at 7½ per cent each year in 1956 and 1957 and 8¾ per cent in 1958.

3.3.1. Examination of costs was made for the year ended March 1958 and our estimate of future costs and fair ex-works prices was made on the basis of the data relating to that year. The products for which costs were determined are caustic lye, caustic soda fused solid, caustic soda flakes, gas chlorine, liquid chlorine, hydrochloric acid, stable bleaching powder and unstable bleaching powder.

3.3.2. The present annual rated capacity of Mettur's is 5180 tons for caustic soda, 3300 tons for liquid chlorine, 990 tons for 100 per cent hydrochloric acid, 4950 tons for stable bleaching powder, and 2100 tons for unstable bleaching powder. The actual production of the several products during the period of cost examination, and the production estimated by us for the future are stated in the tabular statements which follow.

3.3.3. We give below the figures relating to actual works costs per ton of the various products referred to in paragraph 3.3.1. and our estimates under salient heads.

3.3.3.1. *Caustic lye* (100 *per cent NaOH*), *caustic soda fused solid, and caustic soda flakes*:

(Rs. per ton)

| | Lye | | Solid | | Flakes | |
|---|---|---|---|---|---|---|
| | Actuals 1957-58 | Estimate for future | Actuals 1957-58 | Estimate for future | Actuals 1957-58 | Estimate for future |
| Production in tons . . . | 3920 | 6175 | 2523 | 4600 | 516 | 1000 |
| (i) Raw material . . . | 104.48 | 90.30 | 99.39 | 85.89 | 104.36 | 90.18 |
| (ii) Power and fuel . . | 202.55 | 200.91 | 237.76 | 235.28 | 249.65 | 247.04 |
| (iii) Other conversion charges . | 193.21 | 162.84 | 257.18 | 207.99 | 270.04 | 218.39 |
| (iv) Depreciation . . . | 52.60 | 42.75 | 56.03 | 47.00 | 58.83 | 49.35 |
| (v) Total . . . . . | 552.84 | 496.80 | 650.36 | 576.16 | 682.88 | 604.96 |
| (vi) *Less* credit for materials recovered etc. . . . | 166.53 | 158.47 | 159.17 | 151.42 | 167.13 | 158.98 |
| (vii) Net total . . . . | 386.31 | 338.33 | 491.19 | 424.74 | 515.75 | 445.98 |
| (viii) Packing . . . . | Nil | Nil | 45.00 | 45.00 | 141.00 | 141.00 |
| (ix) *Add* cost of un-utilised Chlorine | 61.71 | 31.77 | 61.77 | 31.80 | 64.86 | 33.39 |
| (x) Total works cost . . . | 448.02 | 370.10 | 597.96 | 501.54 | 721 61 | 620.37 |

In estimating costs for future we have assumed the price of salt at Rs. 37.50 per ton and rate of purchase of electrical energy at 2.55 nP. per KWH. Consumption of electricity has been taken at 3500 units per ton of solid caustic soda production. During the year 1957-58 chlorine was not utilised to the extent of 17.3 per cent. We have estimated wastage of chlorine to the extent of 11 per cent in the future.

3.3.3.2. *Gas chlorine and liquid chlorine*:

(Rs. per ton)

| | Gas | | Liquid | |
|---|---|---|---|---|
| | Actuals 1957-58 | Estimate for future | Actuals 1957-58 | Estimate for future |
| Production in tons | 3829 | 5988 | 668 | 1800 |
| (i) Raw materials | 51·29 | 44·58 | 171·46 | 163·51 |
| (ii) Power & fuel | 49·47 | 51·94 | 5·79 | 5·95 |
| (iii) Other conversion charges | 54·25 | 50·29 | 43·79 | 33·03 |
| (iv) Depreciation | 17·45 | 17·76 | 17·83 | 15·27 |
| (v) Total | 172·46 | 164·57 | 238·87 | 217·76 |
| (vi) *Less* credit for materials recovered etc. | 1·00 | 1·06 | 0·73 | 0·75 |
| (vii) Net total | 171·46 | 163·51 | 238·14 | 217·01 |
| (viii) Packing | Nil | Nil | 64·44 | 62·74 |
| (ix) Total works cost | 171.46 | 163.51 | 302.58 | 279. 75 |

Mettur uses gas chlorine for the manufacture of liquid chlorine, hydrochloric acid and unstable bleaching powder.

3.3.3.3. *Hydrochloric acid (commercial grade)*:

(Rs. per ton)

| | Actuals 1957-58 | Estimate for future |
|---|---|---|
| Production in tons | 461 | 1300 |
| (i) Raw materials | 73.88 | 70.40 |
| (ii) Power and fuel | 2.47 | 1.88 |
| (iii) Other conversion charges | 91.46 | 44.21 |
| (iv) Depreciation | 8.28 | 4.63 |
| (v) Total | 176.09 | 121.12 |
| (vi) *Less* credits | 0.46 | 0.40 |
| (vii) Total works cost | 175.63 | 120.72 |

3.3.3.4. *Bleaching powder, stable and unstable :*

(Rs. per ton)

| | Stable | | Unstable | |
|---|---|---|---|---|
| | Actuals 1957-58 | Estimate for future | Actuals 1957-58 | Estimate for future |
| Production in tons | 3642 | 5000 | 1185 | 1000 |
| (i) Raw materials | 231·83 | 214·22 | 158·55 | 152·18 |
| (ii) Power and fuel | 5·78 | 6·36 | 4·32 | 4·98 |
| (iii) Other conversion charges | 66·43 | 49·74 | 64·44 | 73·28 |
| (iv) Depreciation | 21·10 | 9·82 | 12·17 | 9·85 |
| (v) Total | 325·14 | 280·14 | 239·48 | 240·29 |
| (vi) *Less* credit | 0·77 | 0·56 | 0·77 | 0·50 |
| (vii) Net total | 324·37 | 279·58 | 238·71 | 239·79 |
| (viii) Packing | 126·19 | 126·19 | 174·14 | 174·14 |
| (ix) Total works cost | 450·56 | 405·77 | 412·85 | 413·93 |

For stable bleaching powder slaked lime and liquid chlorine are the main raw materials. Slaked lime is produced by the Company and its cost is Rs. 143.82 per ton. Liquid chlorine is charged to stable bleaching powder at the works cost of production excluding packing charges namely Rs. 217.01 per ton. For unstable bleaching powder slaked lime and gas chlorine are the main raw materials. Gas chlorine is charged at the works cost of production, namely, Rs. 163.51 per ton.

*Tata Chemicals Ltd.*

3.4. Tatas is a public limited company registered in 1939 with authorised capital of Rs. 5 crores, and paid-up capital of Rs. 199.96 lakhs as at 30th June, 1957. The Managing Agents of the Company are Tata Industries Private Ltd. Tata's specific and general reserves as at the above date amounted to Rs. 8.58 lakhs, and borrowings aggregated Rs. 148·52 lakhs. The Company paid tax-free dividends to its ordinary shareholders at 7½ per cent in 1956 and 8 per cent in 1957. No dividend was paid to ordinary shareholders prior to 1956.

3.4.1. Examination of costs was made for the year ended June 1957 and for the ten months ended April 1958. Estimation of future costs and fair ex-works prices was made on the basis of the data relating to the former period. The products for which costs were determined are caustic soda fused solid (chemical and electrolytic), caustic soda flakes, gas chlorine, liquid chlorine, hydrochloric acid, and unstable bleaching powder.

3.4.2. The present annual rated capacity of Tatas is 6600 tons for chemical caustic soda, 3300 tons for electrolytic caustic soda, 2145 tons for liquid chlorine, 880 tons for 100 per cent hydrochloric acid, and 990 tons for unstable bleaching powder. The actual production of the several products during the periods of cost examination, and the production estimated by us for the future are stated in the tabular statements which follow.

3.4.3. We give below the figures relating to actual works costs per ton of the various products referred to in paragraph 3.4.1. and our estimates under salient heads.

3.4.3.1. *Chemical and electrolytic caustic soda, fused solid, and caustic soda flakes:*

(Rs. per ton)

| | Chemical—Solid | | | Electrolytic—Solid | | | Flakes | | |
|---|---|---|---|---|---|---|---|---|---|
| | Actuals | | Estimate for future | Actuals | | Estimate for future | Actuals | | Estimate for future |
| | 1956-57 | 1957-58 (ten months) | | 1956-57 | 1957-58 (ten months) | | 1956-57 | 1957-58 (ten months) | |
| Production in tons | 3600 | 3254 | 5550 | 2041 | 1902 | 3550 | 176 | 491 | 1000 |
| (i) Raw materials | 431.53 | 455.87 | 399.76 | 59.51 | 65.13 | 57.42 | 296.93 | 311.73 | 266.28 |
| (ii) Power and fuel | 138.38 | 141.98 | 121.97 | 452.61 | 515.99 | 429.56 | 291.56 | 312.13 | 274.29 |
| (iii) Other conversion charges | 138.87 | 145.45 | 117.57 | 239.93 | 313.49 | 219.24 | 186.21 | 220.64 | 168.33 |
| (iv) Depreciation | 26.77 | 26.38 | 30.64 | 47.07 | 46.59 | 46.60 | 34.11 | 33.83 | 36.06 |
| (v) Total | 735.55 | 769.68 | 669.94 | 799.12 | 941.20 | 752.82 | 808.81 | 878.33 | 744.96 |
| (vi) *Less* credit for materials recovered, etc. | 23.58 | 25.88 | 19.20 | 308.55 | 379.49 | 290.82 | 126.69 | 156.39 | 125.20 |
| (vii) Net Total | 711.97 | 743.80 | 650.74 | 490.57 | 561.71 | 462.00 | 682.12 | 721.94 | 619.76 |
| (viii) Packing | 33.75 | 43.16 | 43.25 | 33.75 | 43.16 | 43.25 | 101.55 | 105.99 | 114.89 |
| (ix) *Add* cost of Un-utilised Chlorine | .. | .. | .. | 56.01 | 14.35 | 13.21 | 20.27 | 5.36 | 5.18 |
| (x) Total works cost | 745.72 | 786.96 | 693.99 | 580.33 | 619.22 | 518.46 | 803.94 | 833.29 | 739.83 |

Although we have worked out cost figures separately for *chemical* fused solid caustic soda and *electrolytic* fused solid caustic soda, it should be made clear that when fused solid caustic soda emerges from the works it is a product derived from a mixture of weak liquor manufactured by both processes, electrolytic as well as chemical. Two separate sets of figures have been projected only to show the variations in the costs of production; these variations exist up to the weak liquor stage. We have not worked out the costs or estimates for caustic lye as Tatas does not produce lye for sale. The break-up of the costs relating to flakes as worked out by us above, contains weighted averages of the costs both by the electrolytic process and the chemical process. The main raw materials for chemical caustic soda are soda ash and lime. The soda ash which is used is of Tatas' own production and is charged at the cost of the product at the stage up to and including wet calcination. This cost is exclusive of the profit applicable to the product; the profit is taken account of in the calculation of profit for caustic soda. The cost of soda ash entering into the production of chemical caustic soda is assumed, in our estimates, at Rs. 214.75 per ton. Tatas burns limestone to produce lime which is charged to the process in the form of milk of lime at Rs. 55.46 per one-thousand gallons. As regards electrolytic caustic soda, Tatas uses salt produced at its own works the cost of which is Rs. 15.44 per ton. It generates its own electricity for its entire requirements using 3850 units per ton of fused solid production. The cost of energy for electrolytic fused solid caustic soda is 8.28 nP. per unit. The percentages of chlorine not utilised by the unit during the two periods were 12.5 and 2 respectively. In our future estimates we have assumed that about 4 per cent of chlorine would remain unutilised.

3.4.3.2. *Gas chlorine and liquid chlorine*:

(Rs. per ton)

| | Gas | | | Liquid | | |
|---|---|---|---|---|---|---|
| | Actuals | | Estimate for future | Actuals | | Estimate for future |
| | 1956-57 | 1957-58 (ten months) | | 1956-57 | 1957-58 (ten months) | |
| Production in tons | 2171 | 2020 | 3520 | 576 | 290 | 350 |
| (i) Raw materials | 26.10 | 28.60 | 26.86 | 256.56 | 322.35 | 261.87 |
| (ii) Power and fuel | 144.83 | 170.36 | 150.60 | 18.72 | 21.96 | 21.22 |
| (iii) Other conversion charges | 64.42 | 95.80 | 62.60 | 61.93 | 54.42 | 44.70 |
| (iv) Depreciation | 12.78 | 12.48 | 12.06 | 22.51 | 12.15 | 9.91 |
| (v) Total | 248.13 | 307.24 | 252.12 | 359.72 | 410.88 | 337.70 |
| (vi) *Less* credit | 0.46 | 0.34 | 0.29 | .. | .. | .. |
| (vii) Net Total | 247.67 | 306.90 | 251.83 | 359.72 | 410.88 | 337.70 |
| (viii) Packing | .. | .. | .. | 65.18 | 82.83 | 65.80 |
| (ix) Total works cost | 247.67 | 306.90 | 251.83 | 424.90 | 493.71 | 403.50 |

Tatas uses gas chlorine for the manufacture of liquid chlorine, hydrochloric acid and unstable bleaching powder.

3.4.3.3. *Hydrochloric acid (commercial grade)*:

(Rs. per ton)

| | Actuals | | Estimate for future |
|---|---|---|---|
| | 1956-57 | 1957-58 (ten months) | |
| Production in tons | 1463 | 846 | 1200 |
| (i) Raw materials | 88.15 | 106.04 | 88.93 |
| (ii) Power and fuel | 4.87 | 6.19 | 5.12 |
| (iii) Other conversion charges | 34.86 | 54.55 | 40.75 |
| (iv) Depreciation | 2.48 | 4.05 | 4.04 |
| (v) Total works cost | 130.36 | 170.83 | 138.84 |



3.4.3.4. *Bleaching powder (unstable)*.

(Rs. per ton)

| | Actuals | | Estimate for future |
|---|---|---|---|
| | 1956-57 | 1957-58 (ten months) | |
| | 1 | 2 | 3 |
| Production in tons | 479 | 352 | 720 |
| (i) Raw materials | 274.88 | 330.69 | 248.36 |
| (ii) Power & fuel | 23.29 | 25.84 | 23.48 |
| (iii) Other conversion charges | 186.30 | 223.18 | 158.55 |

| | 1 | 2 | 3 |
|---|---|---|---|
| (iv) Depreciation . . . . . | 78.89 | 80.75 | 52.08 |
| (v) Total . . . . . | 563.36 | 660.46 | 482.47 |
| (vi) Packing . . . . . | 162.51 | 126.34 | 119.00 |
| (vii) Total works cost . . . . . | 725.87 | 786.80 | 601.47 |

For unstable bleaching powder slaked lime and gas chlorine are the main raw materials. Gas chlorine is charged at the works cost of production.

*Travancore-Cochin Chemicals Private Ltd.*

3.5. TCC is a private limited company registered in 1951 with authorised capital of Rs. one crore, and paid-up capital of Rs. 87.50 lakhs as at 31st March, 1957. The Managing Agents of the company are Seshasayee Brothers (Travancore) Private Ltd. TCC's specific and general reserves as at the above date amounted to Rs. 14 lakhs; it has no borrowings. The capital of the company is held by three shareholders, namely, The Kerala State Government (Rs. 52.5 lakhs), Fertilisers and Chemicals Travancore Ltd. (Rs. 25 lakhs) and Mettur Chemical and Industrial Corporation Ltd. (Rs. 10 lakhs). TCC paid no dividend in 1955, but paid tax-free dividends of 5 per cent in 1956 and 6 per cent in 1957.

3.5.1. Examination of costs was made for the year ended March 1958, and estimation of future costs and fair ex-works prices was made on the basis of the data relating to that period. The products for which costs were determined are caustic lye, caustic soda fused solid, caustic soda flakes, gas chlorine and hydrochloric acid. The caustic soda manufactured by the Company is of rayon grade. In the past, liquid chlorine was not manufactured by the Company; what was sold was all in the form of gas. The Company has installed a plant for liquifaction of chlorine, but commercial production has not yet been started. No data were available for determining the cost of liquid chlorine, and no estimates were, therefore, possible.

3.5.2. The present annual rated capacity of TCC is 6600 tons of caustic soda, 3300 tons for liquid chlorine, and 6105 tons for 100 per cent hydrochloric acid. The actual production of the several products during the period of cost examination, and the production estimated by us for the future are stated in the tabular statements which follow.

3.5.3. We give below the figures relating to actual works costs per ton of the various products referred to in paragraph 3.5.1. and our estimates under salient heads.

3.5.3.1. *Caustic lye* (100 *per cent NaOH*) *caustic soda fused solid and caustic soda flakes.*

(Rs. per ton)

| | Lye | | Solid | | Flakes | |
|---|---|---|---|---|---|---|
| | Actuals 1957-58 | Estimate for future | Actuals 1957-58 | Estimate for future | Actuals 1957-58 | Estimate for future |
| Production in tons | 6679 | 7500 | 1791 | 2100 | 982 | 1000 |
| (i) Raw materials | 128.37 | 132.06 | 132.56 | 136.36 | 132.55 | 136.36 |
| (ii) Power and fuel | 117.08 | 130.20 | 150.33 | 164.15 | 156.75 | 169.92 |
| (iii) Other conversion charges | 81.70 | 94.94 | 153.27 | 158.85 | 166.68 | 172.50 |
| (iv) Depreciation | 64.71 | 52.28 | 80.73 | 88.91 | 83.78 | 95.63 |
| (v) Total | 391.86 | 409.48 | 516.89 | 548.27 | 539.76 | 574.41 |
| (vi) *Less* credit for materials recovered etc. | 181.01 | 187.80 | 186.44 | 193.43 | 186.44 | 193.431 |
| (vii) Net Total | 210.85 | 221.68 | 330.45 | 354.84 | 353.32 | 380.98 |
| (viii) Packing | .. | .. | 33.87 | 36.00 | 113.68 | 120.00 |
| (ix) *Add* (a) cost of unutilised chlorine | 69.63 | 38.80 | 71.72 | 39.96 | 71.72 | 39.96 |
| (*b*) loss on sale of chlorine contracted rates | 93.90 | 106.84 | 96.72 | 110.04 | 96.72 | 110.04 |
| (x) Total works cost | 374.38 | 367.32 | 532.76 | 540.84 | 635.44 | 650.98 |

In estimating costs for future we have assumed the price of salt at Rs. 55.50 per ton, and rate of purchase of electrical energy at 2 nP. per unit. Consumption of electricity has been taken at 4442 units per ton of solid caustic soda production. During the year 1957-58 chlorine was not utilised to the extent of 23 per cent. We have estimated wastage of chlorine to the extent of 10 per cent in the future. Of the chlorine that is being sold by the Company in the form of chlorine gas and hydrochloride gas, a substantial portion is at prices below its cost of production, under two long-term agreements. One agreement is with Fertilisers and Chemicals Travancore Ltd., Alwaye, for a period

of ten years from 16th February, 1952 for the sale of hydrochloride gas (96%) at Rs. 52 per ton ex-plant. The second agreement is with Hindustan Insecticides Private Ltd. for a period of six years from 28th March, 1958 for the sale of wet chlorine gas (98% chlorine content) at Rs. 105 per ton, dried compressed gas (98% chlorine content) at Rs. 120 per ton, and liquid chlorine (98% chlorine content) at Rs. 142 per ton, all ex-plant. It also provides for the sale of hydrochloric acid by Hindustan Insecticides to TCC at the latter's premises at Rs. 52·5 per ton (100 per cent HCL content). Fertilisers and chemicals Travancore Ltd. and Hindustan Insecticides Ltd. both have their factories adjacent to TCC's factory; the former uses hydrochloride gas for the manufacture of ammonium chloride, while the latter uses chlorine gas and liquid for the manufacture of D.D.T. As a result of these two agreements TCC's loss on the sale of chlorine at the contracted rates will be, according to our estimates, Rs. 110.04 per ton on solid caustic soda and flakes and Rs. 106.84 on caustic lye exclusive of profits. As both the above agreements involve binding long-term contracts which the Company may be unable to revise in the immediate future, except by negotiation, it would be unrealistic to estimate the costs for the period of price fixation without including the amount in the special element provided by us for chlorine losses. In principle we reiterate what we have stated in our previous reports that manufacturers of electrolytic caustic soda should intensify their efforts to develop new uses for chlorine, and would go a step further in emphasizing that the prices realised for chlorine and chlorine products should bear fair relation to their costs of production and, in any event, should not result in loading the losses on caustic soda. In the present inquiry we have no doubt conceded a special element in the cost of caustic soda to cover the cost of unutilised chlorine. We have done so only to arrive at realistic estimates of costs and not to encourage the perpetuation of the position. We believe that with some efforts manufacturers should be in a position to do without the provision of this special element in the course of the next year or two. Likewise we would stress that they should endeavour to take advantage of the prices fixed by Government for the subsidiary products and obtain the permissible realisations for them. After careful consideration of all relevant factors we have decided to frame estimates for TCC on a realistic basis after including in the element allowed for chlorine loss, not only the loss from wastage, but also the loss in realisation.

3.5.3.2. *Gas chlorine*:

(Rs. per ton)

| | Actuals 1957-58 | Estimate for future |
|---|---|---|
| Production in tons | 6002 | 6800 |
| (i) Raw materials | 66.28 | 67.58 |
| (ii) Power and fuel | 60.45 | 66.64 |

| | Actuals 1957-58 | Estimate for future |
|---|---|---|
| (iii) Other conversion charges . . . . . | 35.79 | 40.51 |
| (iv) Depreciation . . . . . | 33.41 | 26.75 |
| (v) Total works cost . . . . . | 195.93 | 201.48 |

TCC uses gas chlorine for the manufacture of hydrochloric acid; it will be used in future also for the manufacture of liquid chlorine. Gas chlorine is also sold to Hindustan Insecticides for the manufacture of D.D.T.

3.5.3.3. *Hydrochloric acid (commercial grade).*

(Rs. per ton)

| | Actuals 1957-58 | Estimate for future |
|---|---|---|
| Production in tons . . . . . | 15950 | 13650 |
| (i) Raw materials . . . . . | 63.37 | 65.66 |
| (ii) Power and Fuel . . . . . | 0.02 | 0.02 |
| (iii) Other conversion charges . . . . . | 13.73 | 17.07 |
| (iv) Depreciation . . . . . | 3.36 | 3.28 |
| (v) Total works cost . . . . . | 80.84 | 86.03 |

The production figures stated above are expressed in terms of commercial acid, but the bulk of actual production is in the form of hydrochloride gas. The future production is assumed at less than that during the actual period for two reasons; (a) during 1957-58 part of the production was for destruction of chlorine, and such destruction is not expected to take place in future, and (b) in the future period TCC expects to receive from Hindustan Insecticides about 500 tons of hydrochloric acid (100%) which it will have to accept in terms of contract.

**Determination of future fair ex-works prices**

4. In the previous paragraph we have indicated the fair ex-works costs of the several products manufactured by the five units whose costs were investigated by us. In order to arrive at the fair ex-works prices of these products we should add to the works costs the fair return which is recommended by us and any special allowance which we consider reasonable.

4.1. The only special allowance which we propose to recommend relates to contingencies. Representatives of the industry have asked for an allowance of Rs. 20 per ton on caustic soda, chlorine and bleaching powder *individually*. They also requested that an escalator clause should be provided to take care of increases in the prices of coal, electrical energy, salt and fuel oil. An escalator clause of the nature suggested would render the administration of price control difficult, especially as the prices of salt, electricity and furnace oil are not the same for all units, and the usage of coal is not uniform by all of them. Further, we do not propose to fix individual prices for each producer, nor have we costed all the units in the industry. In the circumstances an allowance for contingencies will serve the needs of the industry and we propose to fix it at Rs. 20 per ton for caustic soda (in its three forms). In our view this allowance will be adequate to provide for all small items of expected increase in costs which it is impossible to calculate or foresee at present. By way of illustration, we may mention the contemplated statutory increase in Employers' contribution to Employees' Provident Fund, increases in compulsory contributions to State Health Insurance Schemes and increases in wages and dearness allowance. The allowance for contingencies will also take care of increases in railway freight rates which have come into force from 1st October, 1958 as well as unforeseen increases in costs of essential consumable stores most of which have to be imported from abroad.

4.2. As regards a fair return to the industry, taking into consideration the large volume of capital investment required, and the need for adequate provision for maintenance of plant and machinery at the optimum productive level, we consider that 12 per cent on the employed capital would be fair and resonable. In arriving at this rate we have borne in mind the current level of taxation on profits, interest rates on borrowings, and increased provision required for labour welfare etc. This return would, in our view, provide funds for the units to meet the reasonable commitments under bonus and gratuity, interest on borrowed capital, dividends on preference shares, managing agents' commission, income-tax and wealth tax, and finally, leave a residue which would enable them to declare reasonable dividends to shareholders.

4.3. Our estimates of the fair ex-works prices of the different products for each unit are given in the four tabular statements appended below. Brief comments, where considered necessary, are furnished in paragraph 4.4.

## *Statement I—Caustic soda*

(Rs. per ton)

| | Caustic lye (100 per cent NaOH) | | | | Caustic soda fused solid | | | | | | Caustic soda flakes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ACCI | DCM | Mettur | TCC | ACCI | DCM | Mettur | TCC | Tatas (Elect.) | Tatas (Chem.) | DCM | Mettur | Tatas | TCC |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1. Raw materials . | 132.72 | 104.53 | 90.30 | 132.06 | 130.73 | 105.13 | 85.89 | 136.36 | 57.42 | 399.76 | 105.64 | 90.18 | 266.28 | 136.36 |
| 2. Power and Fuel . | 224.88 | 301.54 | 200.91 | 130.20 | 241.33 | 324.96 | 235.28 | 164.15 | 429.56 | 121.97 | 332.14 | 247.04 | 274.29 | 169.92 |
| 3. Other conversion charges . . | 224.78 | 196.98 | 162.84 | 94.94 | 471.28 | 245.30 | 207.99 | 158.85 | 219.24 | 117.57 | 265.55 | 218.39 | 168.33 | 172.50 |
| 4. Depreciation . | 73.18 | 63.46 | 42.75 | 52.28 | 100.23 | 74.06 | 47.00 | 88.91 | 46.60 | 30.64 | 73.12 | 49.35 | 36.06 | 95.63 |
| 5. Packing . . | .. | .. | .. | .. | 69.25 | 30.83 | 45.00 | 36.00 | 43.25 | 43.25 | 90.82 | 141.00 | 114.89 | 120.00 |
| 6. (*a*) Cost of unutilised Chlorine . . | .. | 12.54 | 31.77 | 38.80 | .. | 12.62 | 31.80 | 39.96 | 13.21 | .. | 12.68 | 33.39 | 5.18 | 39.96 |
| (*b*) Loss on sale of Chlorine . . | .. | .. | .. | 106.84 | .. | .. | .. | 110.04 | .. | .. | .. | .. | .. | 110.04 |
| 7. Total . . . | 655.56 | 679.05 | 528.57 | 555.12 | 1012.82 | 792.90 | 652.96 | 734.27 | 809.28 | 713.19 | 879.95 | 779.35 | 865.03 | 844.41 |
| 8. *Less* Credit . . | 211.75 | 267.66 | 158.47 | 187.80 | 208.57 | 268.56 | 151.42 | 193.43 | 290.82 | 19.20 | 271.35 | 158.98 | 125.20 | 193.43 |
| 9. Total Cost . . | 443.81 | 411.39 | 370.10 | 367.32 | 804.25 | 524.34 | 501.54 | 540.84 | 518.46 | 693.99 | 608.60 | 620.37 | 739.83 | 650.98 |
| 10. Contingencies . | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11. Return . . | 87.96 | 72.72 | 55.32 | 91.32 | 144.24 | 85.28 | 70.44 | 131.88 | 76.80 | 129.60 | 89.89 | 78.67 | 114.36 | 143.16 |
| 12. Fair ex-works price per ton . . | 551.77 | 504.11 | 445.42 | 478.64 | 968.49 | 629.62 | 591.98 | 692.72 | 615.26 | 843.59 | 718.49 | 719.04 | 874.19 | 814.14 |
| 13. Fair ex-works price per cwt. | 27.59 | 25.21 | 22.27 | 23.93 | 48.42 | 31.48 | 29.60 | 34.64 | 30.76 | 42.18 | 35.92 | 35.95 | 43.71 | 40.71 |

NOTE.—In column 4, the amount of Rs. 91.32 stated to be return includes the profit element of Rs. 37.32 applicable to chlorine sold below it cost of production.
In column 8, the amount of Rs. 131.88 stated to be return includes the profit element of Rs. 38.40 applicable to chlorine sold below its cost of production.
In column 14, the amount of Rs. 143.16 stated to be return includes the profit element of Rs. 38.40 applicable to chlorine sold below its cost of production.

*Statement II — Chlorine*

(Rs. per ton)

| | Gas chlorine | | | | | Liquid chlorine | | | |
|---|---|---|---|---|---|---|---|---|---|
| | ACCI | DCM | Mettur | Tatas | TCC | ACCI | DCM | Mettur | Tatas |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. Raw materials | 67.43 | 53.68 | 44.58 | 26.86 | 67.58 | 232.52 | 273.39 | 163.52 | 261.87 |
| 2. Power and fuel | 76.89 | 114.85 | 51.94 | 150.60 | 66.64 | 9.84 | 9.22 | 5.95 | 21.22 |
| 3. Other conversion charges | 68.80 | 92.94 | 50.29 | 62.60 | 40.51 | 70.38 | 53.45 | 33.02 | 44.70 |
| 4. Depreciation | 15.48 | 21.11 | 17.76 | 12.06 | 26.75 | 35.18 | 20.82 | 15.27 | 9.91 |
| 5. Packing | .. | .. | .. | .. | .. | 38.17 | .. | 62.74 | 65.80 |
| 6. Total | 228.60 | 282.58 | 164.57 | 252.12 | 201.48 | 386.09 | 356.88 | 280.50 | 403.50 |
| 7. *Less* credits | 0.28 | 8.19 | 1.06 | 0.29 | .. | 9.20 | .. | 0.75 | .. |
| 8. Total works cost | 228.32 | 274.39 | 163.51 | 251.83 | 201.48 | 376.89 | 356.88 | 279.75 | 403.50 |
| 9. Return | 30.84 | 31.05 | 28.09 | 28.08 | 44.40 | 89.40 | 52.85 | 69.48 | 58.68 |
| 10. Fair ex-works price per ton | 259.16 | 305.44 | 191.60 | 279.91 | 245.88 | 466.29 | 409.73 | 349.23 | 462.18 |
| 11. Fair ex-works price per cwt. | 12.95 | 15.27 | 9.58 | 13.99 | 12.29 | 23.31 | 20.49 | 17.46 | 23.11 |

## *Statement III—Hydrochloric acid (commercial grade)*

(Rs. per ton)

| | ACCI | DCM | Mettur | Tatas | TCC |
|---|---|---|---|---|---|
| (i) Raw materials | 70.35 | 122.48 | 70.40 | 88.93 | 65.66 |
| (ii) Power and fuel | 3.36 | 1.29 | 1.88 | 5.12 | 0.02 |
| (iii) Other conversion charges | 145.40 | 24.52 | 44.21 | 40.75 | 17.07 |
| (iv) Depreciation | 14.42 | 10.63 | 4.63 | 4.04 | 3.28 |
| (v) Total | 233.53 | 158.92 | 121.12 | 138.84 | 86.03 |
| (vi) *Less* credits | .. | .. | 0.40 | .. | .. |
| (vii) Total works cost | 233.53 | 158.92 | 120.72 | 138.84 | 86.03 |
| (viii) Return | 35.88 | 21.19 | 25.92 | 21.12 | 18.24 |
| (ix) Fair Ex-works price per ton | 269.41 | 180.11 | 146.64 | 159.96 | 104.27 |
| (x) Fair ex-works price per cwt. | 13.47 | 9.01 | 7.33 | 8.00 | 5.21 |

## *Statement IV—Bleaching powder*

(Rs. per ton)

| | Mettur (stable) | Mettur (unstable) | Tatas (unstable) |
|---|---|---|---|
| (i) Raw materials | 214.22 | 152.18 | 248.36 |
| (ii) Power and fuel | 6.36 | 4.98 | 23.48 |
| (iii) Other conversion charges | 49.74 | 73.28 | 158.55 |
| (iv) Depreciation | 9.82 | 9.85 | 52.08 |
| (v) Packing | 126.19 | 174.14 | 119.00 |
| (vi) Total | 406.33 | 414.43 | 601.47 |
| (vii) *Less* credits | 0.56 | 0.50 | .. |

| | Mettur (stable) | Mettur (unstable) | Tatas (unstable) |
|---|---|---|---|
| (viii) Total works cost . . . . . | 405.77 | 413.93 | 601.47 |
| (ix) Return . . . . . | 56.45 | 49.32 | 85.44 |
| (x) Fair ex-works price per ton . . . . | 462.22 | 463.25 | 686.91 |
| (xi) Fair ex-works price per cwt. . . . . | 23.11 | 23.16 | 34.34 |

4.4. Our comments regarding the variations in items of cost of different producers are given below. The comments apply generally to all products, except where specifically stated, because they are all derived directly or indirectly from the electrolytic process. We have limited the comparison to the products of the electrolytic process because the cost of caustic soda produced by the chemical process cannot be compared with that produced by the electrolytic process. The cost of raw materials is low in the case of Tatas and Mettur mainly because they produce their own salt. Tatas are specially at an advantage as their salt works are situated at site. As regards power and fuel TCC is most advantageously placed because it purchases hydro-electric power at a low cost and employs mercury cells which obviate the use of steam for concentration of caustic soda solution obtained from the cells in order to produce caustic lye. Mettur is also at an advantage in regard to the low cost of hydro-electric power. The figures for Tatas and DCM in this regard are high mainly because of the high cost of generation of thermal power in their own power plants. So far as other conversion charges are concerned comment is called for only in the case of ACCI whose costs of labour, establishment and overheads are substantially higher than those of other producers. The cost of production of solid caustic soda for ACCI is high as its actual production was very small in relation to its capacity and the Company was unable to forecast its production of solid caustic soda in future in view of its being able to dispose of almost its entire production of caustic soda in the form of lye. A scrutiny of the figures of depreciation for each unit shows wide divergence. This has resulted from various factors such as the age of the plant, its capacity, the type of equipment installed at each unit and whether or not the unit includes a power plant. Variations in the figures of return on capital employed also occur on account of the same factors mentioned above. In addition the differences are also due to the variations in cost of production which has an effect on the quantum of working capital calculated for the unit. It will be noticed that the figures of depreciation and return in the case of ACCI are excessive in comparison to those of the other producers. The cost of production of hydrochloric acid at TCC has been worked out for an expected production of 13650 tons. It produces hydrochloric acid in large quantities as it is in a position to sell the

bulk of it in the form of 98 per cent hydrochloride gas for manufacture of ammonium chloride. In view of its large production its cost of production does not bear comparison with the costs of the rest of the units whose production is about 1200 to 2220 tons per year. In the case of bleaching powder comparison is possible only between the costs of production of unstable bleaching powder at Tatas and Mettur. We find that the cost of production of bleaching powder by Tatas is excessive in several respects. The cost of raw materials is very high because of the use of special grade of slaked lime and the high cost of chlorine from its electrolytic plant. Its costs in regard to other conversion charges such as repairs, maintenance, establishment and overheads are also excessive.

**Determination of fair selling prices**

5.1. In this paragraph we deal with the question of fair selling prices for the products which are mentioned in Government's reference to us (Appendix). In paragraph 2 of the reference we are requested to indicate the fair selling prices *at ports and at the principal internal markets*. We have examined the implications of this requirement and find that as diverse modes of transport are employed by the several producers for conveying their products (which are in different forms) to ports and internal markets, it is not possible for us to assess the charges of such transport in a general way. Some of the units use road transport in addition to rail. The freight structure relating to rail transport has also changed from 1st October, 1958, and full details are not available. Further, the phrase "principal internal markets" is somewhat wide, and it is not possible for us to demarcate them. In consideration of these factors we propose to fix fair selling prices only on ex-works basis, leaving the question of transport charges to be determined by Government in consultation with the industry. We believe that such determination would be required only in the case of retail sales through stockists and distributors. Bulk purchasers would no doubt be able to arrive at the quantum of transport charges by negotiations with the concerned manufacturers.

5.2. The fair ex-works prices estimated by us for the 5 producers indicate wide variations for almost all the products with which we are concerned in this inquiry. It would be inadvisable to have different sets of prices for a basic chemical like caustic soda or its subsidiary products in several parts of the country. Individual prices for the producers or even zonal prices would lead to ineffective control and disturbance in marketing operations. The significance of this point was recognised even in 1951 when Government considered it necessary to fix a price of Rs. 40-6-0 per cwt. for caustic soda on the basis of the landed cost of imported material in order to ensure the existence of one price throughout the country instead of two, which would have been the case if the indigenous material had to be sold at its fair selling price of Rs. 27/2 per cwt. As, therefore, the objective is to fix a uniform price throughout the country we have considered the only two alternative methods available, namely, (a) to fix individual retention

prices for each producer and recommend the creation of a central pooling agency (or the State Trading Corporation of India) to take over the countrywide distribution of the products at uniform prices and administer the pool or (b) to arrive at a fair average of the prices and determine one (for each product) which would be reasonable both to consumers as well as to producers. The former alternative does not commend itself to us for more than one reason; it takes away from the hands of the industry an important portion of its normal activity which, in its present stage of development, requires considerable market research and extension; also it should not be introduced except when the social purpose behind price control cannot be secured in any other manner, or when the realisations of individual producers cannot be guaranteed otherwise. Further, producers may find it necessary to sell some of the subsidiary products at prices lower than those fixed by Government with a view to achieve maximum chlorine utilisation or avoid wastage, and the flexibility in the price structure which should be available for the purpose will not exist if producers are paid retention prices. On examining the question from various angles we find that there are many practical difficulties as also serious objections in principle to the promulgation of a pooling system for caustic soda and chlorine products and the payment of retention prices for all products to all producers. The only course left to us is to arrive at a fair average price for each product and recommend a fair selling price on that basis.

5.3. *Caustic soda solid fused.*—The fair ex-works prices estimated by us for the 5 units are asfollows:



| | (Rs. per cwt.) | |
|---|---|---|
| ACCI | 48.42 | Electrolytic |
| DCM | 31.48 | |
| Mettur | 29.60 | |
| Tatas | 30.76 | |
| TCC | 34.64 | |
| Tatas | 42.18 | Chemical |

ACCI's price of Rs. 48.42 per cwt. is unrealistic as it is based on a small production of only 102 tons. It cannot be taken into account to arrive at a fair average price for the industry. The weighted average price of electrolytic caustic soda for the other 4 producers is Rs. 31.20 per cwt. The weighted average price of electrolytic and chemical caustic soda produced by the 4 units is Rs. 33.97 per cwt. The weighted average price of Tatas alone, both for chemical and electrolytic caustic soda is Rs. 37.73 per cwt. The question to be considered is which one of these three weighted averages should be taken for the entire industry. If we assume Tatas individual weighted average of Rs. 37.73 it would

result in placing an unduly heavy burden on domestic consumers solely in the interests of one unit. Tatas has, no doubt, created for itself an important place in the caustic soda industry with a production of 5806 tons (solid caustic soda) in 1957 in a total production of 12109 tons in the country. But the gain to the country's economy achieved through this quantum of production has been somewhat neutralised by Tatas' high cost of production. It will, therefore, be unreasonable to give any undue importance to Tatas own weighted average ex-works price. The next alternative would be to consider the propriety of basing a price on the weighted average of electrolytic caustic soda alone namely, Rs. 31.20 per cwt. Such a step would virtually amount to refusing to recognise the contribution of chemical caustic soda to the present or future economy of the country. At the present moment this contribution is not insignificant. When the estimated future production of Tatas aggregating 9100 tons (3550 tons electrolytic and 5550 tons chemical) is taken into account, it will be seen that this unit will be the second largest producer of caustic soda in the country until the Tuticorin plant of Dhrangadhra Chemicals goes into production next year. Apart from this, two more units have been licensed to undertake production of chemical caustic soda, namely, Saurashtra Chemicals Ltd. and Bhiwandiwalla & Co. The latter unit is not expected to complete its project before 1961, but the former is expected to be in production of about 20400 tons per annum in the latter part of next year. Tatas also has definite plans to increase its capacity for chemical caustic soda to 9900 tons by the end of 1959. Increased production of caustic soda in any form is of considerable importance to the country's economy for conserving valuable foreign exchange and any step which results in discouraging expansion is therefore to be deprecated. The problem of how to achieve low costs in the production of chemical caustic soda is not a new one and is integrated with the problem of achieving low costs in the production of soda ash. The last word on the subject of whether electrolytic caustic soda should be encouraged and chemical caustic soda should be discouraged in the present situation has not yet been said, and, indeed, any conclusion reached now might be proved false later. As we see even now, it is not until chlorine and chlorine products are saleable at fair prices can it be said that the economics of the electrolytic caustic soda industry has been established on sound lines. The Tuticorin plant of Dhrangadhra Chemical Works has yet to prove itself as being substantially sound. If its cost of production on the basis of chlorine utilisation for the manufacture of salt is not found to be economical, that unit might well create problems for itself and even for the whole industry with its surplus of chlorine and resultant high cost of caustic soda. Having considered all these factors carefully we have taken the decision to base the fair price for solid caustic soda on the weighted average of the fair ex-works prices of the 4 units, namely, DCM, Mettur, TCC and Tatas (chemical as well as electrolytic caustic soda) as being fair both to the industry and to consumers under existing conditions. This weighted average, as stated above, is 33·97 per cwt. Adding thereto Re. 1 towards selling expense, the fair selling price of fused solid caustic soda would amount to Rs. 34.97 or say Rs. 35 per cwt. As regards the adequacy of this

price to cover the costs and profit margins of the units whose prices have been estimated by us, the position is as follows. The case of ACCI does not qualify for consideration as its costs are unrealistic. As regards Tatas its realisations by sale of chemical and electrolytic caustic soda will result in minimising its overall profits to a considerable extent. It should be noted, however, that the unit can effect significant economies in its cost of production of chemical caustic soda especially by greater utilisation of capacity, minimising the quantities of steam and lime consumed and generally maximising overall recoveries. The projected expansion of capacity for the manufacture of chemical caustic soda will also bring about lowering of costs. TCC will suffer a slight disadvantage as a result of the price being fixed at Rs. 35 per cwt., but it should be remembered that its works cost of production would have been the lowest among the costed units if only it had secured better prices for its chlorine products, and if the cost of solid caustic soda had not been loaded with as high an element as Rs. 148.44 per ton made up of works cost of Rs. 110.04 and return of Rs. 38.40 on account of this factor. TCC should endeavour to rectify the position as early as possible and reap the benefits of low cost of production. DCM and Mettur will both receive ample benefits as their fair selling prices are well below the weighted average. In this context it is necessary to bear in mind that in any scheme under which a single price is fixed on the basis of the average of a number of disparate prices, some units will earn small profits if their costs are high while others may reap large benefits if their costs are low. The emphasis should be on arriving at a price which would safeguard as much as possible the interests of the units whose profits are lowered even though one or two of the others may derive additional profits, as a result. This emphasis has been kept in view by us.

5.4. *Caustic lye* (100% *NaOH*).—The weighted average of the fair ex-works prices of the four units whose costs and prices were estimated by us is Rs. 24.75 per cwt. of caustic lye on the basis of 100 per cent NaOH content. The caustic concentration in the case of each producer is not uniformly kept at 50 per cent but varies within small limits. We, therefore, think it advisable to fix a price on the basis of 100 per cent concentration, and leave it to consumers to work out the price for the actual NaOH content of lye. Selling expense of rupee one per cwt. is considered fair and reasonable. Accordingly the fair selling price would amount to Rs. 75:75 per cwt. or say Rs. 25:80 rounded off to the next higher tenth of a rupee. This price is for lye, naked at works, but includes filling charges; only the cost or rental of containers is excluded—Fusion and packing charges for caustic soda on an average, work out to Rs. 6 per cwt. On this basis, the use of lye at Rs. 25.80 per cwt. will be more attractive to consumers than the use of fused solid at Rs. 35 per cwt. This is as it should be. The use of lye, whenever possible, should be encouraged as conversion of caustic soda into fused solid involves the consumption of scarce materials (steel drums) which are practically destroyed during unpacking.

5.5. *Caustic soda flakes.*—The weighted average of the fair ex-works prices of the four units whose costs and prices were estimated by us is Rs. 38.92 per cwt. of flakes. Selling expense of rupee one per cwt. is considered fair and reasonable. Accordingly the fair selling price would amount to Rs. 39.92 or say Rs. 40 per cwt. rounded off to the next higher tenth of a rupee. Flaking charges and higher cost of packing, on an average, work out to Rs. 5 per cwt. As we have determined the fair selling price of fused solid caustic soda at Rs. 35 per cwt. a price of Rs. 40 for flakes appears to be fully justified.

5.6. *Gas chlorine.*—The weighted average of the fair ex-works prices of the five units whose costs and prices were estimated by us is Rs. 12:9 per cwt. No selling expense need be added to indicate the price of gas supplied for the manufacture of chlorine products within the factory or in adjacent units. The fair ex-works price will therefore work out to Rs. 13 per cwt. for naked dry gas.

5.7. *Liquid chlorine in returnable containers.*—The weighted average of the fair ex-works prices of the four units whose costs and prices were estimated by us is Rs. 21.17 per cwt. which includes filling charges. Selling expense of Re. 1 per cwt. should be added to this amount to arrive at the fair selling price which will be Rs. 22.17 per cwt. or say Rs. 12:9 per cwt. No selling expense need be added to indicate the price

5.8. *Hydrochloric acid (commercial grade).*—We estimated the fair ex-works prices of all five units for hydrochloric acid (commercial grade) but propose to assume the weighted average of only four (namely ACCI, Mettur, DCM and Tatas) for determining the fair selling price, leaving out the estimate relating to TCC. The reason is that TCC's production is of the order of 13600 tons as against a total of about 6500 for the other four put together. The average will be unduly depressed if TCC's fair price is taken into account. The weighted average of the fair ex-works prices of the four units is Rs. 9.72 per cwt. Adding rupee one per cwt. for selling expenses, the fair selling price will be Rs. 10·72 or say Rs. 10.80 per cwt. rounded off to the next higher tenth of a rupee.

5.9. *Bleaching powder—stable.*

5.9.1. The future production in the country will comprise predominantly of stable bleaching powder; all imports are, likewise, of the stable variety. We consider that there should be a single price for indigenous bleaching powder and this should be based on the fair selling price of Mettur's stable bleaching powder which will be Rs. 24.20 per cwt. after the addition of rupee one per cwt. (to the fair ex-works price of Rs. 23.11 per cwt.) towards selling commission and rounding it off to the next higher tenth of a rupee. In determining the fair selling price as above we are ignoring our estimates relating to Tatas as they relate to unstable bleaching powder and to a small production of 720 tons only. Tatas has reduced the size and capacity of its plant since 1954,

and its present reduced output has resulted in raising its cost of production to an uneconomic level.

5.9.2. Having determined the fair selling price of bleaching powder at Rs. 24.20 per cwt. we have examined how far it can be enforced under the existing conditions of demand, supply from imports and domestic sources, and prices. The c.i.f. price of imported bleaching powder during recent months was about Rs. 30 per cwt.; the landed cost with duty was about Rs. 36. Bulk consumers would appear to have been obtaining the product at about Rs. 41 to Rs. 42 per cwt., although retail sales have been taking place at Rs. 90 to Rs. 120 per cwt. on account of scarcity conditions. Mettur's stable bleaching powder was being supplied by it to bulk consumers at about Rs. 37 per cwt., while retail sales of domestic bleaching powder by dealers are reported to have taken place at as high as Rs. 70 per cwt., also on account of scarcity conditions. Prices at retail ends are bound to remain unsettled as long as imports are restricted. The gap between domestic demand and domestic production is likely to be 2000 tons to 4000 tons during the next two years and until Mettur's production is stepped up to 12000 tons in 1961. For the purpose of achieving a measure of stability in the price at which the product is sold to consumers, it would be necessary to make the gap between the fair selling price of domestic bleaching powder and that of the imported product as small as possible. In calculating this gap, we must compare the selling price of the imported bleaching powder at ports with that of indigenous bleaching powder ex-works, to which an element should be added to cover the freight differential of Rs. 2.50 per cwt. The gap would then be of the order of Rs. 14 per cwt. The gap could be reduced if imports of bleaching powder are permitted free of duty. Prior to January 1955 bleaching powder was allowed to be imported duty-free. It was only on the recommendation made by us in paragraph 14.2 of our Report on Caustic Soda & Bleaching Powder (1954) that a duty of 15 per cent *ad valorem* was imposed as from 28th January, 1955. The duty has served its purpose, the indigenous industry has been developed and its cost of production has been established at a low level. We have also recommended in our Report of 27th September, 1958 on the continuance of protection to the Caustic Soda & Bleaching Powder Industry that Bleaching Powder may be de-protected. If no revenue duty is levied on imports, the imported product may be sold in the country at about Rs. 30 per cwt. or even less,—some imports in 1958 having taken place at Rs. 26.50 per cwt.—and the gap between the selling prices of indigenous and imported bleaching powder will be about Rs. 3/- or even less. At present the gap is about Rs. 4/-. The material is an article of vital necessity for public health authorities, textile mills, handloom weavers and laundrymen. The first two sections may obtain bulk supplies at fair rates, but the other two come from vulnerable sectors of the community and suffer the hardships which arise from high retail prices. If the social purpose of price control namely, to pass on the full benefits of low cost indigenous production to all consumers in an even manner, is to be achieved in full measure under existing conditions, the waival of duty on bleaching powder will be fully justified.

The sacrifice of fiscal revenues may be expected to be only for a period of about two years, and the magnitude of sacrifice comparatively small.

5.9.3. If Government are not agreeable to allow imports of bleaching powder free of duty, the only way of reconciling the two disparate prices relating to imported and domestic bleaching powder would be the creation of a pool operated by the State Trading Corporation. Imports of foreign bleaching powder may be canalised through the State Trading Corporation which may acquire the entire indigenous production of bleaching powder at the fair ex-works price of Rs. 23.20 per cwt., pool the imported and indigenous product, and sell it, through established distributors, at a fair average price after providing for charges for administering the pool and selling commission.

5.10. Before summarising our recommendations we would like to mention that the fair selling prices determined by us are ceiling prices which no unit should be allowed to exceed, but may lower if the exigencies of their business required them to do so. We feel that some of them may find it necessary in the future, and on occasions, to sell a few of the subsidiary products at prices below those indicated by us. It is even possible that, with some of the new units going into production of the subsidiary products, areas of demand may shift, and pockets of excess supply may arise for temporary periods until adjustments take place. Under such circumstances the realisations of some of the producers on the total sales of caustic soda and subsidiary products may even fall short of the quantum which is indicated on a *prima facie* comparison of the figures revealed in the tabular statements relating to fair ex-works prices, with fair selling prices. We suggest that these factors are borne in mind when examining our recommendations.

5.11. The fair selling prices recommended by us should be in force for two years, that is, till 31st December, 1960.

**Summary of conclusions and recommendations**

6. Our conclusions and recommendations are summarised below :—

6.1. The fair selling prices recommended by us are on *ex-works* basis.

[Paragraph 5.1]

6.2. The fair selling price of fused solid caustic soda is Rs. 35 per cwt.

[Paragraph 5.3]

6.3. The fair selling price of caustic lye on the basis of 100 per cent NaOH content is Rs. 25:80 per cwt. The price includes filling charges but not the cost or rental of containers.

[Paragraph 5.4]

6.4. The fair selling price of caustic soda flakes is Rs. 40 per cwt.

[Paragraph 5.5]

6.5. The fair ex-works price of dry gas chlorine, naked, supplied for the manufacture of chlorinated products within the factory or in adjacent units is Rs. 13 per cwt.

[Paragraph 5.6]

6.6. The fair selling price of liquid chlorine in returnable containers, inclusive of filling charges, is Rs. 22.20 per cwt.

[Paragraph 5.7]

6.7. The fair selling price of commercial grade hydrochloric acid, naked, inclusive of filling charges, is Rs. 10.80 per cwt.

[Paragraph 5.8]

6.8. The fair selling price of bleaching powder is Rs. 24.20 per cwt. This price should be applied both to stable and unstable bleaching powder. With a view to reducing the gap between the fair selling price of domestic bleaching powder and that of the imported product to the maximum extent possible, Government should consider the possibility of permitting imports of bleaching powder free of duty. If this suggestion is not acceptable, a pool operated by the State Trading Corporation will be the only way of reconciling the two disparate prices relating to imported and domestic bleaching powder. The State Trading Corporation should acquire the entire indigenous production of bleaching powder at the fair ex-works price of Rs. 23.20 per cwt., pool the imported and indigenous product and sell it through established distributors at a fair average price after providing for administrative charges and selling commission.

[Paragraphs 5.9.1, 5.9.2 and 5.9.3]

6.9. The fair selling prices should be in force for two years, that is, till 31st December, 1960.

[Paragraph 5.11]

**Acknowledgements**

7. We wish to convey our thanks to the representatives of the manufacturers who furnished us with detailed information in connection with this inquiry.

C. RAMASUBBAN,
*Chairman.*

S. K. MURANJAN,
*Member.*

J. N. DUTTA,
*Member.*

R. S. BHATT,
*Member.*

RAMA VARMA,
*Secretary.*

BOMBAY :
*Dated 16th October,* 1958.

# APPENDIX

(Vide *paragraph* 1)

No. HC 31(11)/57

GOVERNMENT OF INDIA

## MINISTRY OF COMMERCE AND INDUSTRY

*New Delhi, the February* 8, 1958.

From

Shri M. C. Misra,
Under Secretary to the Government of India.

To

The Secretary,
Tariff Commission,
Bombay.

*Subject* :—Caustic Soda, Chlorine and Hydrochloric Acid—Fair Prices.

Sir,

The current period of protection to the Caustic Soda Industry is due to expire on the 31st December, 1958, and the Tariff Commission has probably already initiated action for enquiring into this industry. Certain factors which have recently come to the notice of the Government give an impression that some units of the indigenous Caustic Soda Industry are selling their products at prices which appeared to be somewhat higher than those warranted by the present costs of production. It also appears that the industry is not maintaining the price differentials which could normally be expected in regard to the selling prices of caustic soda in different forms (*viz.* Caustic Soda Flakes, Fused Caustic Soda and 50% Caustic Liquor), the actual selling prices being determined in relation to the prices of imported caustic soda and on the basis of the demand for and the availability of particular forms of caustic soda in the markets concerned and not on the basis of actual production costs and reasonable margins for transport and profits. The matter was discussed with the manufacturers of caustic soda on the 12th and 31st December, 1957. Copies of record notes of the discussions are enclosed*. It will be observed therefrom that there was general agreement that the Tariff Commission should be moved to review the case of the Caustic Soda Industry with reference to the various forms in which caustic soda is now produced and sold. At the same time, it was agreed that the Commission should also be requested to investigate into the fair price structure of the by-products *viz.* Chlorine in the form of dry gas or as liquid supplied in cylinders, as well as its products because these have a direct bearing on the cost of the main product.

2. I am accordingly directed to request that this case may kindly be placed before the Commission and it may be requested to undertake an enquiry under Section 12(d) of the Tariff Commission Act, 1951, and submit its report on the fair ex-works prices as also the fair selling prices (Ex-works at ports as well as at the Principal internal markets) of the following products :

*Caustic Soda :*

(a) Flakes.

(b) Fused Solid.

(c) 50% Solution.

*Chlorine :*

(a) As gas, supplied for the manufacture of chlorinated products within the factory or in adjacent units.

(b) Liquid Chlorine, in cylinders, ex-works.

* Not reproduced here.

3. *Hydrochloric Acid :*

4. *Bleaching Powder :*

Government are anxious that the industry should charge only reasonable prices for these basic chemicals, particularly because the imports of these products have been drastically reduced and in some cases even banned in order to ensure the off-take of indigenous production and it will be very much appreciated if the Commission would give due priority to the matter, and, if possible, furnish its Report by the middle of June, 1958.

Yours faithfully,

(Sd.) M. C. MISRA.

*Under Secretary to the Govt. of India.*