

**GOVERNMENT OF INDIA  
TARIFF COMMISSION**



**REPORT  
ON THE  
CONTINUANCE OF PROTECTION  
TO THE  
SHEET GLASS INDUSTRY**

**BOMBAY,  
1954**

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SHRI B. N. ADARKAR, M.A. (CANTAB.) . . . Member.

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F.C.A. . . . . Member.

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DR. D. K. MALHOTRA, M.A., Ph. D. . . . . Secretary.

**Personnel of the Panel which heard the case.**

SHRI M. D. BHAT. . . . . *Chairman.*

SHRI B. N. ADARKAR . . . . . Member.

SHRI B. N. DAS GUPTA . . . . . *Member.*



## MINISTRY OF COMMERCE AND INDUSTRY.

### RESOLUTION

#### TARIFFS

*New Delhi, the 4th September 1954*

**No. 14(1)-TB/54.**—The Tariff Commission has submitted its Report on the continuance of protection to the Sheet Glass Industry on the basis of an enquiry undertaken by it under Sections 11 (e) and 13 of the Tariff Commission Act, 1951. Its recommendations are as follows:—

- (1) Protection to the industry should be continued for a further period of three years from 1st January, 1955, and the rate of protective duty be increased, with immediate effect, to 70 per cent. *ad valorem*.
- (2) As a condition for the continuance of protection beyond 31st December, 1954, the manufacturers should be required to maintain the selling prices of their product in fair relation to their costs. They should also exercise effective control over the selling prices charged by their agents and dealers.
- (3) The sheet glass industry should be given facilities to obtain foreign technical assistance.
- (4) The Indian Standards Institution should try to finalise standard specifications for sheet glass as early as possible.
- (5) The mirror manufacturers should be allowed to import their requirements of sheet glass.
- (6) The industry should be given adequate facilities for transport of sodium sulphate from Jodhpur.
- (7) The railway administrations concerned should examine the possibility of granting concessional station-to-station rates for transport of sand and other materials required by the various sheet glass factories.
- (8) The manufacturers should examine the possibility of increased use of sodium sulphate in place of soda ash.
- (9) The quality of indigenous sheet glass has shown some improvement since the last inquiry but is still below the requisite standard. The manufacturers should take note of the defects pointed out by consumers and endeavour to remove them. Steps should also be taken to improve packing.
- (10) The manufacturers should maintain a record of the actual weight of glass of each category produced by them, and of the actual output (in cases) per furnace day obtained by them for each category of sheet glass.
- (11) The industry should endeavour to increase its production of 24 oz. and 32 oz. glass.

2. Government accept recommendation (1) and will take steps in due course to continue the protection granted to the industry for a further period of three years from 1st January 1955. The rate of protective duty will also be increased with immediate effect as recommended by the Commission. Government have also decided to exempt sheet glass covered by tariff Item 60(7) from the levy of surcharge. Necessary notifications have been issued to-day.

3. Government also accept recommendations (3), (4), (5) and (6) and will take steps to implement them as far as possible.

4. As regards recommendation (7), requests for reduction in rates will be considered by the Railway Administrations concerned on the parties furnishing detailed justification with facts and figures in support of their requests.

5. The attention of the industry is drawn to recommendations (2), (8), (9), (10) and (11). Government wish to emphasise, with particular reference to recommendation (2), that the indigenous sheet glass industry should lower its prices and that Government will take suitable steps to safeguard the interests of the consumer.

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#### ORDER

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

L. K. JHA,

Joint Secy. to the Govt. of India.



(iii)

## NOTIFICATION

### TARIFFS

*New Delhi, the 4th September 1954*

**No. 14(1)-T.B./54.**—In exercise of the powers conferred by subsection (1) of section 4 of the Indian Tariff Act, 1934 (XXXII of 1934), the Central Government hereby increases the duty shown in the fourth column against item 60(7) of the First Schedule to the said Act from 45 per cent. *ad valorem* to 70 per cent. *ad valorem* with immediate effect.

L. K. JHA, Jt Secy.



सत्यमेव जयते

(iv)

**MINISTRY OF FINANCE (REVENUE DIVISION)**

**NOTIFICATION**

**CUSTOMS**

*New Delhi, the 4th September, 1954*

**S.R.O. 2927.**—In exercise of the powers conferred by section 23 of the Sea Customs Act, 1878 (VIII of 1878), the Central Government hereby directs that the following further amendment shall be made in the notification of the Government of India in the Ministry of Finance (Revenue Division), No. 13-Customs, dated the 28th February, 1953, namely:—

In the Schedule annexed to the said notification, after serial No. 43 and connected entries, the following serial number and connected entries shall be inserted, namely:—

Serial No.	Name of article	Limitation or condition	Extent of exemption
"44	Sheet glass	..	The whole"

[No. 100.]

E. RAJARAM RAO, Jt. Secy.



सत्यमेव जयते

## CONTENTS

Para	Page
1. Origin of the case . . . . .	I
2. Method of inquiry . . . . .	I
3. Scope of the inquiry . . . . .	2
4. Domestic demand . . . . .	2
5. Domestic capacity and production . . . . .	2
6. Raw materials . . . . .	3
7. Quality of the indigenous product . . . . .	4
8. Existing rate of duty . . . . .	6
9. Imports and import control policy . . . . .	6
10. Commission's estimates of the costs of production and fair ex-works prices of indigenous sheet glass . . . . .	8
11. C. i. f. prices and landed costs . . . . .	10
12. Comparison of the landed costs ex-duty of imported sheet glass with the fair ex-works prices of indigenous sheet glass . . . . .	11
13. Measure of protection . . . . .	11
14. Selling prices of the indigenous product . . . . .	13
15. Summary of conclusions and recommendations . . . . .	13
16. Acknowledgments . . . . .	14

## APPENDICES

I.—List of persons or bodies to whom questionnaires were issued and those from whom replies or memoranda were received . . . . .	15
II.—List of persons who attended the public inquiry on 27th January, 1954 . . . . .	18
III.—Statement showing production of sheet glass by gauges from 1950 to 1953 . . . . .	19
IV.—Statement showing imports of sheet glass during 1950 (May to December), 1951, 1952 and 1953 (January to November) . . . . .	21

## REPORT ON THE CONTINUANCE OF PROTECTION TO THE SHEET GLASS INDUSTRY

The claim of the glass and glassware industry to protection or assistance was referred to the Tariff Board for inquiry by the

**Origin of the case.** Government of India in the Ministry of Commerce by their Resolution No. I-T(4)/48, dated 20th March, 1948. The Tariff Board after making detailed inquiry submitted its Report to Government on 7th January, 1950. The Board recommended the grant of protection to the sheet glass industry for a period of two years in the first instance, i.e., up to 31st March, 1952 by converting the then existing revenue duty of 45 per cent. *ad valorem* on sheet glass of all gauges into a protective duty at the same rate. This recommendation was accepted by Government. Under the Finance Act, 1951, the duty was enhanced by 5 per cent. i.e., to 47½ per cent. *ad valorem* for revenue purposes. The period of protection was extended in consultation with the Tariff Commission, up to 31st December, 1952 by the Indian Tariff (Amendment) Act, 1952, up to 31st December, 1953 by the Indian Tariff (Fourth Amendment) Act, 1952 and up to 31st December, 1954 by the Indian Tariff (Third Amendment) Act, 1953. The present inquiry was undertaken under sections 11(e) and 13 of the Tariff Commission Act, 1951 under which the Commission has been empowered to inquire into and report on any further action required in relation to the protection granted to an industry.

2. (a) On 30th July, 1953, a press communiqué was issued inviting all persons and Associations interested in this industry to obtain copies of the questionnaires prepared by the

**Method of inquiry.** Commission and submit replies thereto. Copies of the questionnaires were issued to the producers, certain importers and consumers and the Associations concerned on 27th July, 1953. The Director, Central Glass and Ceramic Research Institute, Calcutta, the Director, Geological Survey of India, Calcutta, the Director, Indian Standards Institution, Delhi, and the Directors of Industries with the Governments of Bihar, West Bengal and Uttar Pradesh were addressed for information on various points arising out of the inquiry. The Industrial Adviser (Chemicals), Ministry of Commerce and Industry, Government of India, was requested to furnish the Commission with a detailed memorandum on the present position of the industry. A list of those to whom the Commission's questionnaires were issued and from whom replies or memoranda were received is given in Appendix I.

(b) Shri M. D. Bhat, Chairman and Shri B. N. Adarkar, Member, visited the factory of Seraikella Glass Works, Kandra, on 23rd January, 1954 and Shri B. N. Das Gupta, Member, visited the factory of Sodepore Glass Works, Bhadaninagar, on 21st January, 1954. Shri L. M. Ghosh, Assistant Cost Accounts Officer, visited Seraikella Glass Works, Kandra and U. P. Glass Works, Bahjoi from 13th to 22nd November, 1953 and examined their costs of production. A



public inquiry into this industry was held at the Commission's Office in Bombay on 27th January, 1954. A list of those who attended the inquiry and gave evidence is given in Appendix II.

3. The indigenous industry produces sheet glass between 16 oz.

**Scope of the inquiry.** and 32 oz. gauges and hence the scope of the present inquiry is limited to sheet glass of these gauges only.

4. At the last inquiry held in 1949, the Tariff Board estimated the annual domestic demand for sheet glass at

**Domestic demand:** 32 million sq. ft. for the subsequent three years. Most of the estimates received at the present inquiry ranged from 25 million sq. ft. to 36 million sq. ft. for present demand and from 28 million sq. ft. to 40 million sq. ft. for demand during the next three years. The evidence received by us was discussed in detail at the public inquiry and it was agreed that the domestic demand was of the order of 31 million sq. ft. at present and that it was likely to increase to 36 million sq. ft. during the next three years. It was agreed, further, that about 80 per cent. of the demand was for 16' oz. glass, about 15 per cent. for 24 oz. glass and about 5 per cent. for 32 oz. glass.

5. (a) At the time of the last inquiry, the industry consisted of

**Domestic capacity and production.** three units, namely, U. P. Glass Works, Ltd. Bahjoi, Seraikella Glass Works, Ltd., Kandra and Sodepore Glass Works, Ltd., Sodepore and the total annual capacity of these units was estimated by the Board at 15 million sq. ft. Sodepore Glass Works were granted a loan by the Industrial Finance Corporation, but despite this assistance, the factory worked only intermittently and was finally closed down. Recently, a new factory under the same name has been set up at Bhadaninagar, near Hazaribagh with further assistance from the Industrial Finance Corporation and the factory is expected to resume production, after the necessary modifications and extensions are carried out. It is expected to have an annual capacity of 30 million sq. ft. The rated capacity of Seraikella Glass Works is 21.6 million sq. ft. and that of U. P. Glass Works is 14 million sq. ft. Both the factories have to close down their furnaces for relining for approximately 2 to 2½ months and their effective capacity, therefore, is about five-sixths of the figures mentioned above. Sodepore Glass Works are using imported refractories and expect that their furnaces can remain in continuous operation for a period of two and a half years. A new unit, called Hindustan-Pilkington Glass Works, Ltd., with an annual capacity of 21 million sq. ft. has been set up at Asansol and is expected to come into production shortly. The industry has, thus, a maximum rated capacity of 86.6 million sq. ft. per annum, although so long as two of the units have to close down for relining of furnaces for about 2 to 2½ months annually, the effective annual capacity may be taken to be 80 million sq. ft.

(b) The following statement shows the actual production of sheet glass by Seraikella Glass Works, U. P. Glass Works and Sodepore Glass Works since 1950. The production by gauges by each of these units is given in Appendix III.

*Production of sheet glass in India*

(in million sq. ft.)

	Annual rated capacity	Production			
		1950	1951	1952	1953
Seraikella Glass Works . . .	21.6	5.516	6.973	7.036	14.799
U. P. Glass Works . . .	14.0	3.156	2.379	2.008	5.361
Sodepore Glass Works . . .	30.0	0.757	1.860	0.009	2.618
<b>TOTAL</b> .	<b>65.6</b>	<b>9.429</b>	<b>11.212</b>	<b>9.053</b>	<b>22.778</b>

The total production of sheet glass amounted to 9.4 million sq. ft. in 1950, 11.2 million sq. ft. in 1951, 9.1 million sq. ft. in 1952 and 22.8 million sq. ft. in 1953. Actual production has been far below capacity for various reasons, such as inadequate transport facilities for movement of raw materials and the finished product, shortage of coal and soda ash and competition from imports. In 1954, Seraikella Glass Works expect to produce 15 million sq. ft., Sodepore Glass Works, 10.5 million sq. ft., U. P. Glass Works, 5.4 million sq. ft. and Hindustan-Pilkington Glass Works, 8.5 million sq. ft. These figures add up to 39.4 million sq. ft. The domestic demand, however, is estimated at only 31 million sq. ft. at present and there is, therefore, likelihood of keen competition among these units. We consider that in view of the prospect of intensified internal competition, it will be necessary for each unit to explore all possible ways of improving its efficiency and also to diversify its production.

6. (a) The principal raw materials required for the manufacture of sheet glass are sand, limestone, dolomite, soda ash, sodium sulphate and borax. In addition, coal and furnace oil are used as fuel and refractories for lining of furnaces. All the raw materials, except soda ash and borax, are obtained from indigenous sources. Imported Magadi ash is used in preference to the light ash produced in the country, because it is cheaper and is also considered technically more suitable. The sheet glass producers have stated that light ash has a tendency to fly into regenerators and that this affects the life of the refractories. In 1951, however, when adequate supplies of Magadi ash were not available, the glass industry had agreed to use indigenous ash to the extent of 20 per cent. of its requirements. The supply position of Magadi ash has now improved and with the help of the Development Wing of the Ministry of Commerce and Industry, the industry is able to obtain its requirements of this ash, though some of the units are also using indigenous ash for a small part of their requirements. The domestic capacity for production of soda ash, which is 54,000 tons at present, is not adequate to meet the entire domestic demand and hence plans have been initiated to expand the capacity to 90,000 tons by the end of 1955. Of the additional capacity of 36,000 tons, approximately 6,000 tons will be devoted to manufacture of heavy ash by one of the units, namely, Dhrangadhra Chemical Works. So long as domestic production of light ash is insufficient to meet domestic requirements, we do not think that the interests of the soda ash industry are adversely affected by the glass

industry being allowed to use imported Magadi ash. The glass industry can effect some economy in the use of soda ash by using indigenous sodium sulphate to a larger extent. Seraikella Glass Works have informed us that they could increase their consumption of sodium sulphate from the present rate of 56 lbs. per 1000 lbs. of sand to 100 lbs., thereby reducing the consumption of soda ash by 33 lbs. per 1,000 lbs. of sand, provided they could get sufficient wagons for transport of sodium sulphate from Jodhpur. We recommend that the sheet glass producers should examine the possibility of increased use of sodium sulphate in place of soda ash and that they should be given adequate facilities for transport of sodium sulphate from Jodhpur.

(b) In paragraph 6(A) of its Report, the Tariff Board had suggested that the manufacturers should instal machinery for washing of sand so as to improve the colour and uniformity of their product. Seraikella Glass Works have informed us that although they had installed such equipment, they have now found it unnecessary, to use it, since by using small quantities of arsenic, they are able to neutralise the effect of the small percentage of iron in the sand on the colour of the glass. The representative of Pilkington Bros. who attended the public inquiry also stated that tests carried out in London on samples of Allahabad sand had proved it to be of satisfactory quality and that Hindustan-Pilkington Glass Works also did not propose to set up sand washing equipment.

(c) Since the last inquiry, an indigenous source of supply has been developed for refractories required by the glass industry. Sillimanite blocks made from raw sillimanite from the Khasi Hills in Assam have been found, after extensive tests carried out by Steel Brothers in England, to be quite suitable for use in the glass industry. Pilkington Brothers have recently been exporting sillimanite blocks to the United Kingdom and their representative informed us at the inquiry that these blocks were recognised as "the finest in the world". The domestic glass industry, therefore, is no longer dependent on foreign supplies of refractories.

(d) The industry has complained of the existing freight rates on sand and other materials. In the case of Seraikella Glass Works, while the price of sand at the source is 6 as. 6 pies per maund, the railway freight comes to as much as 12 as. per maund. We recommend that the railway administrations concerned should examine the possibility of granting concessional station-to-station rates for transport of sand and other materials required by the various sheet glass factories.

7. (a) Most of the consumers who replied to the Commission's questionnaire expressed serious dissatisfaction with the quality of indigenous sheet glass. It was stated that the indigenous product suffered from various defects such as bubbles, stones, waviness, blisters, scratches, uneven thickness, etc., that it was not properly graded and that its defective packing resulted in heavy breakages in transit. The Director-General of Supplies and Disposals informed us that indigenous manufacturers had failed to supply even reasonably good quality sheets and that sufficient care was not exercised even in cutting the panes to the requisite size within plus/minus

1/16" tolerance. In spite of repeated advice from the Government Inspection Wing, none of the manufacturers had introduced a proper system of grading in their factories, and of late, the manufacturers were not even quoting regularly against Government tenders. This is probably due to the fact that Government requirements form a very small proportion of the total demand. For about a year, the Director-General of Supplies and Disposals had placed no orders with the indigenous industry and the entire Government requirements of sheet glass during this period were met from imports. We have discussed these various complaints with the manufacturers and consumers. With regard to the presence of seeds, stones, etc., Seraikella Glass Works have modified the installation of their machines so as to avoid reheating of the glass and claim to have thereby eliminated the seeds formed in reheating. They also claim that they are now able to avoid, to a large extent, stones which are formed due to devitrification. U. P. Glass Works have improved the design of their furnaces in order to obtain better temperature control. These improvements have helped to remove some of the defects of the indigenous product, but the evidence received by us leaves no doubt that the quality of the indigenous product is still far below the requisite standard. The manufacturers have explained that the presence of stones was due to the inferior quality of refractories used by them and that the use of good quality refractories now available may help to remove this defect in future. As stated in paragraph 6(b), Allahabad sand has been found to be of good quality, even when used without washing and hence the defects which have been complained of cannot be attributed to the quality of sand. We find that most of the drawbacks of indigenous sheet glass are of a kind which can be overcome by determined efforts on the part of manufacturers to improve their technique of manufacture. Factors like the temperature in different parts of the furnace, the viscosity of the melt and the speed of drawing need to be more efficiently controlled (if necessary, by installation of more modern equipment) than the manufacturers have been able to do so far. We understand that indigenous sheet glass, which is sold as of 16/18 oz. gauge, actually varies in thickness from 16 oz. to 23 oz. which means that the manufacturers have not yet been able to develop the necessary technique for controlling the thickness of their glass within close tolerances. Apart from the inconvenience caused to the consumer, this inevitably pushes up the cost of production and involves higher freight charges. We recommend that the manufacturers should take note of the defects pointed out by consumers and endeavour to remove them. The industry should also be given facilities to obtain foreign technical assistance. We understand from the Development Wing that Government have already taken steps to secure the services of an expert in glass technology under the United Nations Technical Assistance Programme and we trust that the industry will make full use of the advice and assistance of this expert in solving its technical problems. The industry has not yet succeeded in producing glass which is free from waves. It is difficult to avoid this defect altogether in any drawn glass, but it is possible to control it to a substantial extent by exercising greater care at various stages of manufacture. The mirror manufacturers, who require glass which is absolutely free from waves, have contended that indigenous glass is unsuitable for silvering. This contention is largely justified and we recommend that

the mirror manufacturers should be allowed to import their requirements of sheet glass. The manufacturers should exercise greater care in cutting so as to conform to the accepted tolerances in size specifications and should also introduce a system of grading as early as possible. Neither Seraikella Glass Works nor U. P. Glass Works grade their products, while Sodepore Glass Works claim to have two grades, A and B. We regard this position as highly unsatisfactory. There is scope for improvement in packing also. Seraikella Glass Works maintain that the percentage of breakages in their case hardly exceeds 3 per cent. The dealers, however, have complained of heavy breakages, particularly in small packings, as a general defect of indigenous glass and the manufacturers should, therefore, take further steps to improve the packing of their product.

(b) The question of formulating standard specifications for indigenous sheet glass has been under the consideration of a Committee of the Indian Standards Institution since 1951. At the public inquiry, the representative of Pilkington Brothers, Ltd., expressed the view that standard specifications could be only of limited help in improving the quality of sheet glass, because even in the United Kingdom such specifications do not contain anything more than the tolerances in thickness. This is borne out by the British Standard, 952: 1953 for glass for glazing. In the United Kingdom, it has been found extremely difficult to lay down any rigid rules as to the number of waves, blisters, etc. which might be tolerated in sheet glass and each manufacturer has, therefore, to use his own judgment and try to attain as high a standard of excellence as possible. In the light of British experience, it seems doubtful whether indigenous producers could give complete satisfaction to consumers or establish a reputation for their product, merely by conforming to standard specifications. Even so, the adoption of standard specifications would help to improve the quality of indigenous sheet glass in some respects and we, therefore, recommend that the Indian Standards Institution should try to finalise its specifications for sheet glass as early as possible.

8. Sheet Glass is assessed to duty under item No. 60(7) of the First Schedule to the Indian Customs Tariff, the relevant extract from which is given below:—

Item No.	Name of article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of		
				the U.K.	A British colon	Burma
60(7)	Sheet Glass	Protective	47½ per cent. <i>ad valorem</i>	—	—	25-1/5 per cent. <i>ad valorem</i>

The protective duty is to remain in force till 31st December, 1954.

9. (a) In pursuance of a recommendation made by the Tariff Board, imports of sheet glass are being recorded by the Director-General of Commercial Intelligence and Statistics, Calcutta, since May 1950. The statistics furnished by the D.G.C.I. & S. are given in Appendix IV. Imports of sheet glass amounted to 2.3 million sq. ft. in May—

December, 1950 31.0 million sq. ft. in 1951, 15.5 million sq. ft. in 1952 and 7.7 million sq. ft. in January—November, 1953.

(b) The import control policy with regard to sheet glass since the licensing period January—June, 1951 is summarised below. Throughout the periods mentioned, licences were granted only to established importers for imports from soft currency areas on the basis of quotas expressed as a percentage of one-half of their best year's imports.

(i) *January—June and July—December, 1951.*—The quota was 60 per cent. for sheet glass of 16 to 24 oz. and 75 per cent. for sheet glass below 16 oz. and above 24 oz.

(ii) *January—June, 1952.*—The quota was 25 per cent. for sheet glass of 16 to 24 oz. and 75 per cent. for sheet glass below 16 oz. and above 24 oz. The quota for 16 to 24 oz. glass was calculated on the basis of imports of these categories only.

(iii) *July—December, 1952.*—No licences were granted for imports of sheet glass of 13 to 32 oz.

(iv) *January—June, 1953.*—The quota was fixed at 40 per cent. subject to the conditions (1) that not more than 25 per cent. of the face value of the licence was used for imports of sheet glass of 13 to 32 oz., (2) that not more than 25 per cent. of the face value was used for imports of sheet glass of 12 oz. and below or above 32 oz. and (3) that not more than 50 per cent. of the face value was used for imports of plate glass, including safety glass, wired glass and flat glass not otherwise specified in the Import Control Schedule.

(v) *July—December, 1953.*—The quota was fixed at 50 per cent. subject to the conditions (1) that not more than 15 per cent. of the face value of the licence was used for imports of sheet glass of 13 to 32 oz. and (2) that not more than 20 per cent. of the face value was used for imports of sheet glass of 12 oz. and below or above 32 oz.

(vi) *January—June, 1954.*—The quota has been raised to 60 per cent., but the percentage of the face value which can be used for imports of sheet glass of 13 to 32 oz. has been reduced to 12½ per cent.

(c) Most of the importers who have replied to the Commission's questionnaire have referred to the acute scarcity of sheet glass at important consuming centres like Bombay and Calcutta. In August, 1953, imported sheet glass of 16/18 oz., the landed cost of which was Rs. 28-8-0 per case, was selling at Rs. 48 per case in Bombay and at Rs. 45 per case in Calcutta. Similarly, imported sheet glass of 24 oz., the landed cost of which was Rs. 42-10-0 per case, was selling at the same time at Rs. 75 per case in Bombay and at Rs. 60 to 70 per case in Calcutta. The selling price of imported sheet glass of 32 oz. was Rs. 80 per case in Calcutta, as against its landed cost of

Rs. 60-1-3 per case. The evidence received by us at the public inquiry left no doubt that the present import control policy had resulted in an acute scarcity of good quality sheet glass in the country and that importers were consequently able to recover high margins over the landed costs.

10. (a) Our Cost Accounts Officer examined the cost of production of sheet glass produced by U. P. Glass Works, Bahjoi and Seraikella Glass Works, Kandra. The periods selected for determination of actual costs were 1951 and 1952 in the case of the former firm and the financial years ending 31st March, 1952 and 1953 in the case of the latter. After discussion in camera with the representative of the two firms, it was decided to take the cost data relating to Seraikella Glass Works only for the purpose of estimating the future cost of production and the fair ex-works prices of indigenous sheet glass. Unlike U. P. Glass Works which produce a variety of glassware besides sheet glass, Seraikella Glass Works are engaged in the production of sheet glass and glass tubes only and hence the cost of production of sheet glass could be determined more accurately in the case of this firm. Seraikella Glass Works have also a larger capacity and expect to utilise a larger proportion of their capacity, than U. P. Glass Works. U. P. Glass Works produce mainly 16 oz. glass, while the production of Seraikella Glass Works consists of 24 oz. and 32 oz. glass as well as 16 oz. glass. The details of the cost data collected for the two firms are given in the Cost Report which is being forwarded to Government as a separate confidential enclosure to this Report, but the salient features of the cost of production of Seraikella Glass Works on which our estimates of the future fair ex-works prices of indigenous sheet glass are based are briefly explained below.

(b) (i) Our estimates of the fair ex-works prices are based on a production of 15 million sq. ft. of sheet glass. The actual production of sheet glass by Seraikella Glass Works in 1953 amounted to 14.8 million sq. ft. but in view of the keen internal competition which the firm is likely to meet with during the next three years, we consider it reasonable to base the estimates of future costs on a production of 15 million sq. ft. only.

(ii) The firm is expected to work 270 furnace days per annum on an average. The weight of glass per case of 100 sq. ft. has been taken at 118.75 lbs. for 16/19 oz. glass, 156.25 lbs. for 24/25 oz. glass and 206.25 lbs. for 32/33 oz. glass. In the case of Seraikella Glass Works, the weight of 16 oz. glass in 1952-53 was in fact found to vary from 16 oz. to 23 oz. per sq. foot. We recommend that the manufacturers should endeavour to conform to the generally accepted tolerances in regard to the weight of glass per sq. foot and should also maintain a record of the actual weight of glass of different categories (16 oz., 24 oz. and 32 oz.) produced by them. The cost of raw materials per 100 sq. ft. of each category of sheet glass has been estimated on the basis of the raw material cost per lb. of glass and the weight of glass (as given above) adopted for each category.

(iii) The following rates have been adopted for the consumption of different raw materials per lb. of glass:—

	<i>Lbs. per lb. of glass</i>
Sand	0.7736
Feldspar	0.0017
Soda ash	0.2246
Sodium sulphate	0.0562
Saltpetre	0.0010
Limestone	0.0834
Dolomite	0.1498
Arsenic	0.00163

The cost of each raw material per lb. of glass has been calculated on the basis of the rate of consumption given above and the latest price paid by the firm. After ascertaining the total operating expenses pertaining to the sheet glass section, the operating cost per furnace day has been worked out and the operating cost per 100 sq. ft. of each category of sheet glass has been calculated by taking the output per furnace day at 555 cases of 100 sq. ft. each for 16/19 oz. glass, 388 cases for 24/25 oz. glass and 222 cases for 32/33 oz. glass. It will facilitate the allocation of the operating expenses if the figures of actual output per furnace day for each category of sheet glass are available and we, therefore, recommend that the manufacturers should maintain a record of the actual output (in cases) per furnace day obtained by them for each category of sheet glass.

(iv) As a result of a labour award, the labour cost is expected to increase by 10 per cent. over the actuals for 1952-53 and this has been allowed in calculating future costs. The total expenses on account of power and fuel, repairs and maintenance, consumable stores, establishment and works overheads (other than depreciation) are expected to remain unchanged as compared with 1952-53. The actual packing expenses incurred in 1952-53 per 100 sq. ft. of each category of glass have been allowed. Depreciation has been allowed at Income Tax rates on the written down value of the plant, interest on working capital at 4½ per cent. per annum on an amount equal to three months' cost of production and return at 10 per cent. on the gross block valued at Rs. 19.73 lakhs. After examining the current distribution of the sales of sheet glass by Seraikella Glass Works among the principal markets in the country, we have estimated the net freight disadvantage of the indigenous product in relation to the imported product at Rs. 3.75 per 100 sq. ft.



(c) The fair ex-works prices of indigenous sheet glass estimated by us on the above basis for the next three years are given below:—

*Commission's estimate of the fair ex-works prices of indigenous sheet glass*

	[Rupees per case of 100 sq. ft.]		
	16/19 oz.	24/25 oz.	32/33 oz.
Raw materials [Glass cost @ Rc. 0.058 per lb.]	6.888	9.063	11.963
Conversion charges [power and fuel, labour, repairs and maintenance, consumable stores, establishment and works over-heads, other than depreciation]	9.323	13.337	23.308
Depreciation	1.027	1.470	2.568
Packing	5.172	5.172	10.344
Total cost	22.410	29.042	48.183
Interest on working capital	0.241	0.310	0.513
Return on block	1.317	1.884	3.292
Freight disadvantage	3.750	3.750	3.750
Fair ex-works price	27.718	34.986	55.738
<i>i.e.,</i>	27-11-6	34-15-9	55-11-10

11. The information received from various sources regarding the **C. i. f. prices and landed costs.** c.i.f. prices and landed costs of imported sheet glass was discussed at the public inquiry. The quotations of c.i.f. prices for 16/18 oz. and 24 oz. glass received by us related to imports from Belgium, United Kingdom, Japan and Czechoslovakia. The current c.i.f. prices for 16/18 oz. glass and 24 oz. glass from different sources are as follows:—

	[Rs. per case of 100 sq. ft.]	
	16/18 oz.	24 oz.
Belgium	18-10-0	28-0-0
U. K.	19-5-1 [18 oz.]	28-0-0
Japan	15-12-0	26-4-0
Czechoslovakia	15-5-0	23-10-0

Since import quotas are fixed in terms of value, importers usually prefer the cheapest source of supply and it was, therefore, agreed that the c.i.f. prices of Czechoslovakian glass, namely, Rs. 15-5-0 per case of 16/18 oz. glass and Rs. 23-10-0 per case of 24 oz. glass should be adopted for purposes of comparison with the fair ex-works prices of indigenous glass. As regards 32 oz. glass, it was agreed that the current c.i.f. price of imports from Belgium, namely, Rs. 42-10-4 per case, should be adopted. Sheet glass of thicker substance than 24 oz. is mostly required in large sizes which are difficult to manufacture and we understand that such glass is principally imported from

Belgium. On the basis of the c.i.f. prices adopted by us, the landed costs of imported sheet glass work out as follows:—

	[Rs. per case of 100 sq. ft].		
	16/18 oz.	24 oz.	32 oz.
C. i. f. price ..	15—5—0	23—10—0	42—10—4
Customs duty ..	7—3 —9	11—2 —7	20—2 —5
Clearing charges ..	0—8 —0	0—12—0	1 —0 —0
Landed costs with duty ..	23—0 —9	35—8 —7	63—12—9
Landed costs without duty	15—13—0	24— 6—0	43—10—4

12. The landed costs, ex-duty, of imported sheet glass given in paragraph 11 are compared below with the fair landed costs, ex-duty ex-works prices of indigenous sheet glass given in paragraphs 10(c).  
**Comparison of the landed costs, ex-duty of imported sheet glass with the fair ex-works prices of indigenous sheet glass.**

	[Rupees per case of 100 sq. ft.]		
	16/18 oz.	24 oz.	32 oz.
(1) C. i. f. price ..	15—5 —0	23—10—0	42—10—4
(2) Clearing charges ..	0—8 —0	0—12—0	1 —0 —0
(3) Landed cost without duty ..	15—13—0	24— 6—0	43—10—4
(4) Fair ex-works price ..	27—11—6	34—15—9	55—11—10
(5) Difference between the fair ex-works price and landed cost, without duty ..	11—14—6	10—9 —9	12—1—6
(6) The above difference as a percentage of the c. i. f. price ..	77·75%	44·90%	28·36%
(7) Existing duty ..	47·25%	47·25%	47·25%

13. (a) It will be seen from the above comparison that the rates of protective duty required to place indigenous sheet glass on par with imported sheet glass are 77·75 per cent. for 16/18 oz. glass, 44·90 per cent. for 24 oz. glass and 28·36 per cent. for 32 oz. glass. As stated in paragraph 4, 80 per cent. of the domestic demand is for 16/18 oz. glass, 15 per cent. for 24 oz. glass and 5 per cent. for 32 oz. glass. Weighted in these proportions, the average of the rates indicated above comes to 70·35 per cent. The existing rate of duty is 47·25 per cent. *ad valorem*. The difference between the existing duty and the duty indicated above is almost wholly due to the allowance for average freight disadvantage, Rs. 3·75 per case, included in our estimates of fair ex-works prices. No allowance was made for this factor at the last inquiry. If there were no freight disadvantage, a duty of 47·95 per cent only would have been sufficient to protect the industry. The principal markets for sheet glass, however, are in the port towns, while the sheet glass factories are situated in the interior. Sheet glass of 16/18 oz. gauge from Seraikella Glass Works, for example, has to bear a freight of Rs. 7-3-0 to Rs. 7-8-0 per case (depending on the weight of glass per case) from Kandra to Bombay, and since the fair ex-works price of this glass (without freight) is Rs. 23-15-6 per case, its cost to the

consumer in Bombay would be Rs. 31-2-6 to Rs. 31-7-6 per case. As against this, with a duty of 47.95 per cent., the landed cost of imported sheet glass of 16/18 oz. gauge in Bombay would be Rs. 23-2-6 per case. It is, therefore, necessary to make due allowance for the freight disadvantage of the domestic industry in order that the scheme of protection may be fully effective. If, in spite of the fact that no allowance was made for this factor at the last inquiry, the domestic industry was able to sell its products in the port towns, it was only because of the severe restriction of imports. It may be pointed out that we have allowed for only the net disadvantage of the industry in the matter of freight, after taking into account its competitive position *vis-a-vis* imports in different markets. The production of sheet glass has considerably increased since 1950 and the evidence before us shows that it is expected to increase still further from this year as a result of the reorganisation of one of the old units and the establishment of a new unit. In paragraph 7, we have come to the conclusion that the quality of indigenous sheet glass does not yet compare favourably with that of imported glass. The manufacturers are aware of this fact and have been endeavouring to overcome their technological and other deficiencies. Having regard to these circumstances, we consider that protection is still necessary to enable the industry to consolidate its position. We, therefore, recommend that protection to this industry be continued for a further period of three years from 1st January, 1955 and that the rate of protective duty be enhanced, with immediate effect, to 70 per cent. *ad valorem*.

(b) It will be seen from the evidence given in paragraph 9(c) above that the present restriction on imports combined with the existing rate of duty has enabled importers of sheet glass to charge excessive margins. Under such conditions, the market prices of imported sheet glass tend to be fixed, more on the basis of what the market can bear than with reference to landed costs, and it would, therefore, appear that even a higher rate of import duty than that recommended by us may only result in curtailing the importer's margin without leading to a further rise in the prices of imported sheet glass. Imported sheet glass of 16/18 oz. gauge was selling in August last at Rs. 48 per case in Bombay and Rs. 45 per case in Calcutta, while even at the enhanced duty recommended by us, the landed cost of this glass would be Rs. 26-8-6 per case. We have, however, recommended the above rate of import duty on the assumption that subject to the availability of foreign exchange, the import control policy with respect to sheet glass will be so administered in future as to maintain the selling prices of the imported product on par with its landed costs. We recommend that as a condition for the continuance of protection, manufacturers should be required to maintain the selling prices of their product in fair relation to their costs. We may add that the import duty on "glass and glassware, not otherwise specified", (I.C.T. item 60), which is not a protected item, has recently been enhanced to 66½ per cent. *ad valorem* for revenue reasons and a duty of 70 per cent. on sheet glass would not, therefore, be too high in comparison with other types of glassware. Further, the rate of protective duty would have worked out higher than 70 per cent if the rates indicated for different gauges of sheet glass in paragraph 12 had been weighted in proportion to the actual production of those gauges. We have, however, adopted the weights indicated by our estimates of domestic demand, in order that the

domestic industry should have an incentive to increase its production of 24 oz. and 32 oz. glass. We recommend that the manufacturers should endeavour to expand their production of 24 oz. and 32 oz. glass. This will help them to some extent to strengthen their position to meet the keen internal competition likely to develop in the next few years.

14. At the time of the public inquiry, the ex-works selling prices of sheet glass produced by Seraikella Glass Works were Rs. 28 per case for 16/18 oz. glass, Rs. 43 per case for 24 oz. glass and Rs. 100 per case for 32 oz. glass. These were the lowest ex-works prices charged by the firm. Higher prices were charged on sales to nearer destinations in order to make up the loss on freight on sales to port towns and other distant destinations. In addition to the above prices, the firm charged 1 per cent. for charity. The prices were inclusive of a commission of 5 per cent. for dealers. The ex-works selling prices charged by U. P. Glass Works varied from Rs. 30 to Rs. 34 per case for 16/18 oz. glass, inclusive of a commission of 5 per cent. for dealers. Their selling price for 24 oz. glass was 50 per cent. higher than that for 16/18 oz. glass. Sodepore Glass Works charged Rs. 25/8 per case, ex-works, for 16/18 oz. glass (second quality, the first quality being out of stock). They allow a commission of 10 per cent. to their Sole Selling Agents, but no commission to dealers. On the basis of the data collected by us regarding the actual cost of production of U.P. Glass Works and Seraikella Glass Works for 1952 and 1952-53 respectively, we find that the prices charged by U. P. Glass Works for 16/18 oz. glass were below the fair selling prices, based on their cost for 1952, while those charged by Seraikella Glass Works for the same type of glass were almost equal to the fair selling prices, based on their cost for 1952-53. Seraikella's prices for 24 oz. glass and 32 oz. glass, however, exceeded the fair selling prices by an appreciable margin, though it must be pointed out that in 1952-53, 24 oz. glass formed only 1.67 per cent and 32 oz. glass only 0.25 per cent. of their total output. We have already recommended above that the manufacturers of sheet glass should be required to maintain the selling prices of their product in fair relation to their costs. The manufacturers should also exercise effective control over the prices charged by their agents and dealers.

15. Our conclusions and recommendations are summarised below:—  
**Summary of conclusions and recommendations.**

(1) The annual domestic demand for sheet glass is about 31 million sq. ft. at present and is likely to increase to 36 million sq. ft. during the next three years. [Paragraph 4]

(2) The annual rated capacity of the industry, which is 65.6 million sq. ft. at present, will increase to 86.6 million sq. ft. when Hindustan-Pilkington Glass Works come into production. Production of sheet glass in India amounted to 9.4 million sq. ft. in 1950, 11.2 million sq. ft. in 1951; 9.1 million sq. ft. in 1952 and 22.8 million sq. ft. in 1953. [Paragraph 5]

(3) The manufacturers should examine the possibility of increased use of sodium sulphate in place of soda ash. [Paragraph 6(a)]

(4) The industry should be given adequate facilities for transport of sodium sulphate from Jodhpur. [Paragraph 6(a)]

(5) The railway administrations concerned should examine the possibility of granting concessional station-to-station rates for transport of sand and other materials required by the various sheet glass factories. [Paragraph 6(d)]

(6) The quality of indigenous sheet glass has shown some improvement since the last inquiry, but is still below the requisite standard. The manufacturers should take note of the defects pointed out by consumers and endeavour to remove them. Steps should also be taken to improve packing. [Paragraph 7(a)]

(7) The mirror manufacturers should be allowed to import their requirements of sheet glass. [Paragraph 7(a)]

(8) The sheet glass industry should be given facilities to obtain foreign technical assistance. [Paragraph 7(a)]

(9) The Indian Standards Institution should try to finalise standard specifications for sheet glass as early as possible. [Paragraph 7(b)]

(10) The manufacturers should maintain a record of the actual weight of glass of each category produced by them, and of the actual output (in cases) per furnace day obtained by them for each category of sheet glass. [Paragraph 10(b) (ii) & (iii)]

(11) Protection to the industry should be continued for a further period of three years from 1st January, 1955 and the rate of protective duty be increased, with immediate effect, to 70 per cent. *ad valorem*. [Paragraph 13(a)]

(12) The industry should endeavour to increase its production of 24 oz. and 32 oz. glass. [Paragraph 13(b)]

(13) As a condition for the continuance of protection beyond 31st December, 1954, the manufacturers should be required to maintain the selling prices of their product in fair relation to their costs. They should also exercise effective control over the selling prices charged by their agents and dealers. [Paragraphs 13(b) & 14]

16. We wish to acknowledge the co-operation received by us from the producers, importers and consumers of sheet glass and various Government Departments in conducting this inquiry. We also wish to thank Dr. S. P. Varma, Deputy Development Officer, Ministry of Commerce and Industry (Development Wing), Government of India, for his assistance in connection with this inquiry.

M. D. BHAT, *Chairman*.

B. N. ADARKAR, *Member*.

B. N. DAS GUPTA, *Member*.

D. K. MALHOTRA, *Secretary*.

BOMBAY;

The 18th May, 1954.

## APPENDIX I.

[ *Vide* paragraph 2(a) ]

*List of persons or bodies to whom Questionnaires were issued and  
‡ those from whom replies or memoranda were received.*

\* Those who have replied.

### PRODUCERS:

- \*1. Seraikella Glass Works Ltd., P. O. Kandra (B. N. Rly.), Dist. Singhbhum.
- \*2. Sodepore Glass Works Ltd., P. O. Bhadani Nagar, Dist. Hazaribagh (Bihar).
- \*3. U. P. Glass Works Ltd., Bahjoi, Dist. Moradabad.
4. The Standard Glass Works, Najibabad (U. P.).
- \*5. Hindustan-Pilkington Glass Works Ltd., Hindustan Buildings, 4, Chittaranjan Avenue, Calcutta—13.

### ASSOCIATIONS:

- \*1. All India Glass Manufacturers Federation, 'Hotel Regal', Queens Road, Delhi.
- \*2. U. P. Glass Manufacturers Syndicate, Shikohabad.
3. Bengal Glass Manufacturers Association, P-11, Mission Row Extension Calcutta.

### SUPPLIERS OF RAW MATERIALS:

- \*1. Tata Chemicals Ltd., Bruce Street, Bombay—1.
2. Dhrangadhra Chemical Works Ltd., Dhrangadhra.

### IMPORTERS:

1. A. K. Badami Arsiwalla, 82, Abdul Rehman Street, Bombay—3.
2. Adair, Dutt & Co. (India) Ltd., Stephen House, 5, Dalhousie Square, Calcutta\*
3. A. Swamy, 11-Umpherson Street, Madras.
4. Baluja Glass Co., Fatehpuri, Delhi.
5. Bharoomal & Co., Abdul Rehman Street, Bombay—3.
6. Carew & Co. Ltd., 4, Fairlie Place, Calcutta—1.
7. Daudbhai M. Tayebally, 110, Abdul Rehman Street, Bombay—3.
8. Denis Malcolm & Co., Ltd., D-5, Clive Building, 8, Clive Street, Calcutta.
- \*9. D. Ramiah Chetty & Sons, 228-230, Devaraja Mudaly St., Madras—3.
10. D. Srinivasan & Co., No. 9, Wall Tax Road, Madras—3 (S.I.).
11. F. W. Pollack & Co., 11, Oak Lane, Fort, Bombay.
- \*12. F. Ihl & Co., Kerawalla Mansion (1st floor), Carnac Road, Bombay—2.
- \*13. Goolamhoosein Valiji Arsiwalla, 116, Abdul Rehman Street, Bombay—3.
14. Griffin Tatlock (India) Ltd., 274, Hornby Road, Bombay.
- \*15. J. T. Kellock, Representing Pilkington Brothers Ltd., P. O. Box No. 682, Bombay—1.
- \*16. H. Manory Ltd., D-5, Clive Buildings, Calcutta.
- \*17. Karimjee Ebrahimji Arsiwalla, 118/120, Abdul Rehman Street, Bombay—3.
- \*18. Koonjo Behary Chandra & Sons Ltd., 10-1, Swallow Lane, Calcutta.
19. K. S. Shivji & Co., Shivji Building, 178-79, Broadway, P. O. Box No. 5, Madras—1.
- \*20. M. Mitter & Co. Ltd., 114, Hazra Road, Calcutta.
21. Mappin & Webb (India) Ltd., Central Bank Building, Mahatma Gandhi Road, Bombay—1.

22. Mohamadbhai Adamji & Co., 16, Mirza Street, Parsi Gali, Bombay.
- \*23. Mangaldas Ramji, C/o Shree Shakti Stores, Vithal Sadan, 342, Kalbadevi Raod, Bombay—2.
24. Mohamadbhai Valiji Arsiwala 76, Abdul Rehman Street, Bombay.
25. Parry & Co. Ltd., P. Box No. 12, Madras.
26. R. B. Mundul & Co. 9, Clive Road, Calcutta.
- \*27. Sepulchre Brothers (India) Ltd., Taj Building, Hornby Road, Fort, Bombay.
28. Saxby Farmer (India) Ltd., 17, Convent Road, Calcutta—14.
29. Scott & Pickstock Ltd., 2, Clive Ghat Street, Calcutta.
- \*30. Tribhowandas Maneklal Taktawala, 1924, Gandhi Road, Ahmedabad.
31. Universal Trading Co., 36, Venkata Chala Mudalay Street, Madras.
32. W. T. Suren & Co. Ltd., United India Bldg., Sir P. M. Road, Fort, Bombay.

#### ASSOCIATION:

- \*1. The All India Glass Merchants' Association, 116, Abdul Rehman Street, Bombay—3.

#### CONSUMERS:

- \*1. Aluminium & Glassware Emporium, 289, Netaji Subhas Chandra Road, Madras.
2. Alpyine Cosmetic Laboratories (India), Janmabhoomi Chambers, Fort, Bombay
3. Amritlal Chand, Clive Building, Calcutta.
4. Alembic Chemical Works Company Ltd., Baroda.
5. A. R. Raju & Bros, Ramchandrapuran, East Godawari Distt., Madras Presidency.
6. Indian Soap & Toiletries Maker's Association, P-11, Mission Row Extension, Calcutta.
- \*7. Bengal Chemical & Pharmaceutical Works Ltd., 164, Maniktala Main Road, Calcutta—11.
8. Bengal Distilleries Co. Ltd., Konnagar.
- \*9. Behary Lall Dey & Co. Ltd., 9, Swallow Lane, Calcutta.
- \*10. Directorate General of Supplies & Disposals, New Delhi.
11. Castophene Manufacturing Co., 85, Love Grove Road, Bombay—18.
12. D. Sommo & Co., 318, Wall Tax Road, P. Box No. 532, Madras—3.
13. E. M. Abdulla & Co., 315-18, Netaji Subhas Chandra Road, Madras.
14. Godrej Soaps Ltd., 316, Delisle Road, P. O. Jacob Circle, Bombay—11.
15. Government Distilleries, Narayanguda, Hyderabad (Deccan).
16. Glacier Products (India), Pathankot (East Punjab).
17. Hyderabad Chemical & Pharmaceutical Works Ltd., P. O. Box No. 182, Hyderabad (Deccan).
- \*18. Hargovind Dharamsi, 31, Mirza Street, Bombay—3.
- \*19. Jamna Dass Gopal Dass, Picture Lane, Lucknow.
20. Jayanand Khira & Co., Kothare Building, Bombay.
21. K. S. Shivji & Co., 178-79, Broadway, Madras.
22. Kalvert & Co., 123, Upper Duncan Road, Bombay—8.
23. Mephalls Trading Co., Bombay—19.
24. Martin Harris Ltd., Mercantile Bldg., Lal Bazar Street, Calcutta.
- \*25. Municipal Commissioner, Bombay Municipal Corporation, Bombay—1.
26. National Chemical Laboratory of India, Poona—8.
27. Nutex India Ltd., Devkaran Mansion, Block No. 1, Princess Street, Bombay—2.
28. Officer on Special Duty, 1st Grade College, University of Mysore, Mysore.
29. Popat Jamal & Sons, Jamal Bldg., Broadway, Madras.
30. Raptakos Brett & Co. Ltd., Dr. Annie Basant Road, Worli, Bombay—18.
31. Sri Ram Campher Garland Works, Cocanada.

- \*32. Sen & Co., 37, Moti Sil Street, Calcutta—13.
- 33. Secretary, Bombay Port Trust, Bombay.
- 34. Secretary, Madras Port Trust, Madras.
- \*35. Secretary, Commissioner's for the Port of Calcutta, Calcutta.
- 36. Scientific & Surgical Traders Association, 128, Princess Street, Bombay—2.
- 37. Spencer & Co. Ltd., Mount Road, Madras.
- \*38. Sanitex Chemical Industries Ltd., Industrial Area, Gorwa Road, Baroda—3.
- 39. Tata Oil Mills Co. Ltd., Bombay House, Bruce Street, Bombay—1.
- 40. Teddington Chemical Factory Ltd., United India Bldg., Sir P. M. Road, Bombay.
- 41. Vijaya Chemicals Toilet Works, 21/22, Surya Narayan Chetty Street, Rayapuram, Madras.
- 42. Vincent & Co. Ltd., Trichinopoly.
- 43. Shapoorji Pallonji Mistry, 'Windmere', Cuffi Parade, Bombay.
- 44. McKenzies Ltd., Sewree, Bombay—15.
- 45. Ratilal & Co., Madhavji Thakersey Building, Picket Cross Road, Bombay.
- 46. Shah Construction Co. Ltd., Jamshedji Tata Road, 198, Churchgate Reclamation, Bombay—1.
- 47. Sewri Engineering Co. Ltd., Savoy Chambers, Wallace Street, Fort, Bombay—1.
- 48. Hindustan Construction Co. Ltd., Construction House, Ballard Estate, Bombay.
- 49. Motichand & Co., United India Building, Sir P. M. Road, Bombay—1.
- 50. Fabricated Steel & Construction Co. Ltd., 24-B, Hamam Street, Fort, Bombay.
- 51. Gannon Dunkerley & Co. Ltd., Chartered Bank Building, Esplanade Road, Bombay—1.

#### GOVERNMENT DEPARTMENTS AND OTHERS:

- \*1. Development Wing (Chemicals), Ministry of Commerce & Industry, New Delhi.
- \*2. Central Glass and Ceramic Research Institute, P. O. Jadavpur College, Calcutta—32.
- \*3. Director of Industries, Bihar, Patna.
- \*4. The Director of Cottage Industries, U. P., Kánpur.
- \*5. The Director of Industries, West Bengal, Calcutta.
- \*6. The Director, Geological Survey of India, 27, Chowringhee, Calcutta.
- \*7. The Director, Indian Standards Institution, 19, University Road, Civil Lines, Delhi.



## APPENDIX II

[ *Vide* paragraph 2(b) ]

*List of persons who attended the public inquiry on 27th January, 1954.*

### PRODUCERS:

- |                       |   |   |              |  |
|-----------------------|---|---|--------------|--|
| 1. Mr. H. C. Varshnei | • | • | Representing | Seraikella Glass Works Ltd., Kandra,<br>U.P. Glass Works Ltd., Bahjoi<br>and U. P. Glass Manufacturers<br>Syndicate, Shikohabad. |
| 2. Mr. D. N. Sen      | } | • | „            | Sodepore Glass Works Ltd.,<br>Bhadaninagar and Bengal Glass<br>Manufacturers Assn., Calcutta.                                    |
| 3. Mr. Arjun Prasad   |   |   |              |  |
| 4. Mr. Jaswant Singh  | • | • | „            | All India Glass Manufacturers'<br>Federation, Delhi.   |

### IMPORTERS:

- |  |   |   |   |  |
|--|---|---|---|--|
| 1. Mr. J. T. Kellock                     | • | • | „ | Pilkington Brothers Ltd. (England)<br>P. O. Box 682, Bombay—1. |
| 2. Mr. C. C. Desai                       | • | • | „ | All-India Glass Merchants' Asso-<br>ciation, Bombay.           |
| 3. Mr. Fida-aly Gulamhusein<br>Arsiwala. | • | • | „ | Gulamhusein Valiji Arsiwala, 116<br>Abdul Rehman St., Bombay.  |
| 4. Mr. Abdulhusein Esaji<br>Arsiwala.    | • | • | „ | Karimji Ibrahimji Arsiwala, Abdul<br>Rehman Street, Bombay.    |
| 5. Mr. M. Sanker                         | • | • | „ | Sepulchre Bros. (India) Ltd., Taj<br>Building, Bombay—1.       |
| 6. Mr. Mangaldas Ramji                   | • | • | „ | Mangaldas Ramji, 342, Kalbadevi<br>Road, Bombay—2.             |
| 7. Mr. F. Ihl                            | } | • | „ | F. Ihl & Co., Kerawalla Mansion<br>Bombay—2.                   |
| 8. Mr. K. A. Dotiwala                    |   |   |   |  |
| 9. Mr. I. G. Dharamsi                    | • | • | „ | Hargovind Dharamsi, 31, Mirza<br>Street, Bombay—3.             |
| 10. Mr. Divecha                          | • | • | „ | Divecha Glass Works, Bombay.                                   |

### CONSUMERS.

- |                          |   |   |   |   |
|--------------------------|---|---|---|---|
| 1. Mr. Franklin D' Souza | • | • | „ | Bombay Municipal Corporation,<br>Bombay |
|--------------------------|---|---|---|---|

### SUPPLIERS OF RAW MATERIALS:

- |                   |   |   |   |                              |
|-------------------|---|---|---|------------------------------|
| 1. Mr. C. R. Rao  | • | • | „ | Tata Chemicals Ltd., Bombay. |
| 2. Mr. K. S. Mody | f | • |   |                              |

### GOVERNMENT DEPARTMENTS & OTHERS:

- |                     |   |   |              |   |
|---------------------|---|---|--------------|---|
| 1. Dr. S. P. Varma  | • | • |              | Deputy Development Officer,<br>Ministry of Commerce & In-<br>dustry, New Delhi. |
| 2. Mr. N. K. Biswas | • | • | Representing | Director of Industries, West Bengal.  |
| 3. Mr. V. N. Kohli  | • | • | Representing | Director General of Supplies and<br>Disposals, New Delhi.                       |

# APPENDIX III

[Vide Paragraph 5(b)]

Statement showing production of sheet glass by gauges from 1950 to 1951.

(In sq. ft.)

Name of the producer	1950					1951			Total
	16 Oz.	21 Oz.	24 Oz.	32 Oz.	Total	16 Oz.	21 Oz.	24 Oz.	
Seraiella Glass Works Ltd., KANDRA . . . . .	5,332,822	9,156	129,646	44,653	5,516,277	6,809,802	23,618	56,717	6,973,229
U.P. Glass Works, Ltd., BAHJOI	3,123,455	2,118	28,163	2,590	3,156,326	2,378,618	Nil	330	2,378,948
*Sodepore Glass Works Ltd., BHADANINAGAR . . . . .	749,887	..	3,155	3,999	757,041	1,794,183	..	60,589	1,860,460
TOTAL . . . . .	9,206,164	11,274	160,964	51,242	9,429,644	10,982,603	23,618	117,636	11,212,637

\* The figures shown against this firm include the production of the factory at Sodepore till it was closed down.

# APPENDIX III—contd.

Statement showing production of sheet glass by gauges from 1952 to 1953.

Name of the producer	1952					1953				
	16 Oz.	21 Oz.	24 Oz.	32 Oz.	Total	16 Oz.	21 Oz.	24 Oz.	32 Oz.	Total
Seraikella Glass Works Ltd., KANDRA . . . .	6,961,608	Nil	52,913	21,843	7,036,364	14,533,773	Nil	260,100	4,832	14,798,705
U.P. Glass Works Ltd., BAHJOI	1,998,836	"	9,270	Nil	2,008,106	5,356,075	2,582	2,283	Nil	5,360,940
*Sodepore Glass Works Ltd., BHADANINAGAR . .	4,081	..	2,515	2,290	8,886	1,795,069	..	801,318	21,910	2,618,297
TOTAL . . . .	8,964,525	..	64,698	24,133	9,053,356	21,684,917	2,582	1,063,701	26,742	22,777,942

\*The figures shown against this firm include the production of the factory at Sodepore till it was closed down.

## APPENDIX IV

[Wide paragraph 9(a)]

Statement showing Imports of Sheet Glass during 1950 (May to December) 1951, 1952 and 1953 (January to November)

Origin of import	1950 (May-December)			1951			1952			1953 (Jan.-Nov.)		
	Quantity		Value	Quantity		Value	Quantity		Value	Quantity		Value
	Sq. ft.	Rs.		Sq. ft.	Rs.		Sq. ft.	Rs.		Sq. ft.	Rs.	
United Kingdom	615,637	3,36,853		4,990,887	14,06,975		14,97,714	9,00,637		4,55,631	2,77,139	
France	1,251,114	3,45,574		2,732,273	6,92,781		7,28,882	2,04,176		72,117	25,973	
Belgium	347,856	1,26,890		19,945,176	61,95,646		5,706,317	22,43,541		32,87,806	15,20,090	
Czechoslovakia	50,406	31,983		1,704,433	4,00,224		2,865,398	6,86,354		16,07,224	2,86,998	
Germany Western	778	1,992		1,513,800	3,48,687		427,345	1,15,669		1,45,846	52,739	
Poland				17,903	9,644		1,826,873	4,14,809		2,50,375	5,436	
Sweden	30,600	7,405		57,800	13,465		199,345	17,815				
Japan							2,318,134	4,06,534		1,884,912	3,74,296	
Other Countries	4,600	992		300	67		37,427	24,951		1,100	2,702	
TOTAL	2,280,991	8,54,689		30,992,572	91,27,489		15,514,435	50,14,486		7,705,011	25,45,373	



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