



**REPORT OF THE
COMPTROLLER AND AUDITOR GENERAL
OF INDIA**

UNION GOVERNMENT
NO. 13 (COMMERCIAL) OF 1991

351.72 32R
N1

BHARAT OPHTHALMIC GLASS LIMITED

**REPORT OF THE
COMPTROLLER AND AUDITOR GENERAL
OF INDIA**

UNION GOVERNMENT
NO. 13 (COMMERCIAL) OF 1991

BHARAT OPHTHALMIC GLASS LIMITED

REPORT OF THE
COMMISSIONER GENERAL AND SUPERVISOR GENERAL
OF INDIA

PARLIAMENT LIBRARY
Central Govts Publications
Acc. No. P.C.
Date.....

REPORT OF THE COMMISSIONER GENERAL AND SUPERVISOR GENERAL OF INDIA

TABLE OF CONTENTS

| <u>PARAGRAPH NO.</u> | | <u>PAGE NO.</u> |
|--------------------------|---|-----------------|
| | Overview | [(iii)-(iv)] |
| 1.00 | Introduction | 1 |
| 2.00 | Review of performance by the Committees | 2 |
| 2.01 | Techno-Economic Committee (1973) | 2 |
| 2.02 | Expert Group (1980) | 3 |
| 2.03 | Expert Committee (1989) | 4 |
| 3.00 | Production Performance | 5 |
| 3.01 | Capacity utilisation | 5 |
| 3.02 | Outdated Technology | 6 |
| 3.03 | Erratic pot behaviour | 7 |
| 3.04 | Irregular gas supply | 9 |
| 3.05 | Lack of renovation and replacement | 11 |
| 4.00 | Marketing problems | 12 |
| 5.00 | Manpower analysis | 14 |
| 6.00 | Financial Position & Working Results | 17 |

STATE OF CALIFORNIA

IN SENATE, FEBRUARY 15, 1906.

REPORT OF THE COMMISSIONERS OF THE LAND OFFICE.

RECEIVED BY THE COMMISSIONERS OF THE LAND OFFICE

ON FEBRUARY 15, 1906.

AT THE OFFICE OF THE COMMISSIONERS OF THE LAND OFFICE,

SAN FRANCISCO, CALIFORNIA.

1906.

PRINTED BY THE STATE PRINTING OFFICE.

SAN FRANCISCO, CALIFORNIA.

1906.

AT THE OFFICE OF THE COMMISSIONERS OF THE LAND OFFICE,

SAN FRANCISCO, CALIFORNIA.

1906.

PRINTED BY THE STATE PRINTING OFFICE.

SAN FRANCISCO, CALIFORNIA.

1906.

AT THE OFFICE OF THE COMMISSIONERS OF THE LAND OFFICE,

SAN FRANCISCO, CALIFORNIA.

1906.

PRINTED BY THE STATE PRINTING OFFICE.

SAN FRANCISCO, CALIFORNIA.

1906.

OVERVIEW

1. The Government of India entered into an agreement with the Government of erstwhile U.S.S.R. in 1957 for setting up an Ophthalmic Glass Plant in India. The Project was initially entrusted to the National Instruments Limited and was subsequently transferred to the newly formed company Bharat Ophthalmic Glass Limited with effect from April 1972.

(Para 1.00)

2. There was shortfall in the utilisation of capacity ranging between 82.54% and 63.82% during the years from 1984-85 to 1990-91. The average capacity utilisation during the seven years period (1984-85 to 1990-91) was only 27.32% of the achievable capacity. This shortfall was due to the following reasons:

a) Adoption of outdated batch process technology where the yield was very low as compared to continuous process technology. The working of the plant was reviewed by successive committees in 1973, 1980 and 1989, which recommended continuous process technology.

(Paras 2.01, 2.02 & 3.01)

b) The pot index' (ratio of number of melts achieved to the number of pots transferred into the furnace) as envisaged in the D.P.R. was Six (6). This index was pegged down to (4) in 1973 and (2.5) in 1980, which also could not be achieved by the company. The poor performance of the pots was mainly due to non-availability of indigenous Jabalpur clay assumed in the D.P.R. for the pot technology. The low production resulted in surplus pots to the extent of 28.63% on the average of the available pots during the years from 1984-85 to 1990-91.

(Para 3.03)

c) Irregular coke oven gas supply from Durgapur Projects Limited during the period from 1984-85 to 1987-88 resulted in heavy production loss and damage to the plant & equipments which necessitated temporary switch over to oil fired burners.

(Para 3.04)

d) The need for renovation and replacement of equipments and machinery was recognised by the Govt. which released Rs. 76.55 lakhs for the purpose. However, the company incurred only Rs. 37.65 lakhs (49.18% of the amount released) towards renovation and replacement and diverted balance amount for non-plan expenditure

(Paras 2.02 & 3.05)

3. a) Since, the cost of production of the Company was higher than the landed cost of the comparable imported products, the Company found it difficult to market its products at competitive remunerative prices.

(Para 4.00)

b) The Company could not penetrate into the market for optical glass items required by Defence Organisations, Nuclear Research Stations etc. primarily because it could not match the price of products imported under OGL.

(Para 4(b))

4. a) Gross benefits to employees per annum were more than the value added per annum during the period from 1984-85 to 1990-91. The percentage of average outgo to average value added per employee ranged between 117.53% and 555.96% during the same period.

b) In the following years the expenditure on Salaries, wages & other benefits to the employees of the Company exceeded the turn-over of the Company:

1984-85, 1985-86, 1986-87, 1987-88, 1989-90 & 1990-91.

(Para 5.03)

5. The financial position of the Company was depressing as the net worth of the Company which was minus Rs. 1714.97 lakhs as on 31.3.1985 had become minus Rs. 6002.38 lakhs as on 31.3.1991. The accumulated loss amounted to Rs. 6648.22 lakhs against paid up capital of Rs. 596 lakhs as on 31.3.91.

(Para 6.00)

1.00 INTRODUCTION

On the recommendations of a team of experts from the erstwhile U.S.S.R. who visited India in December 1956 for setting up an ophthalmic and optical glass project in the country, the Government of India entered into an agreement in November 1957 with the Government of the erstwhile U.S.S.R. The project, initially entrusted by the Government of India to Heavy Engineering Corporation Ltd. was transferred in July, 1961 to National Instruments Ltd. (N.I. Ltd.). The Detailed Project Report submitted by N.I. Ltd. to the Government of India in April 1962 envisaged an annual production of 300 tonnes of ophthalmic blanks inclusive of 103 lakh pieces of ophthalmic lenses.

It had already been brought out in the Audit Report (Commercial) for the year 1970-71 Part XII, para 4.1.1 that although the establishment of the project was not found to be fully justified on economic and financial considerations, the same was conceived as the Soviet credit for this project had been allotted long ago and a good deal of work on the project had been done in the erstwhile U.S.S.R. While approving the project (April 1963) the Government of India desired that every effort should be made to improve the economics of the project, including that of exploring the possibility of undertaking the manufacture of optical glass.

The ophthalmic glass plant commenced production at the end of 1968. Considering the various administrative problems relating to the unit of N.I.Ltd., a new company styled as Bharat Ophthalmic Glass Ltd. was incorporated on 1st April 1972 to take over the Ophthalmic Glass Plant. The activities of the Ophthalmic Glass Plant were earlier reviewed in Part-XII of the Audit Report (Commercial) 1970-71 covering the period upto the formation of the new company (1971-72). The present short review covers the activities of the Company for the subsequent period.

2.00 REVIEW OF PERFORMANCE BY THE COMMITTEES

2.01 Techno-Economic Committee (1973)

As already brought out in Audit Report [Para 4.3.3(B)] mentioned earlier, the performance before the formation of the new company was poor. During the first year (1972-73) after the formation of the new company, the production continued to be poor and was only 64.00 tonnes of ophthalmic blanks and 5.06 lakh pieces of lenses which was only 21.33% and 4.91% respectively of the production anticipated in the D.P.R.

Consequent on the poor production performance, the Government of India decided (November 1972) to set up a Techno-Economic Committee to suggest measures to increase the installed capacity and production. The Committee assessed (March, 1973) that the achievable production of the plant was 200 tonnes of ophthalmic blanks per annum, which could be increased to 267 tonnes by installing two additional pot heating furnaces. The Committee further assessed that the capital investment and the cost of production for the continuous process technology were considerably lower than the conventional method of batch process being followed by the Company. It was also assessed that the capacity of the lens section (i.e. grinding and polishing of blanks into lenses) was 40 lakh pieces per annum.

The Committee, inter-alia, recommended (March, 1973) the following:-

- i) immediate steps to install two additional pot arches of improved quality;
- ii) closure of Lens Section in view of uneconomic functioning of this section;
- iii) adoption of continuous process technology.

The company took the following action on the basis of above recommendations of the committee.

- i) Construction of two additional pot arches around 1974 which were put to use in 1984-85.

ii) closure of lens section in August, 1976,

It is, however, observed that although the T E C (1973) recommended closure of the lens Department in March 1973, the Company closed it only in August, 1976, i.e. after a lapse of more than three years. Consequently, machinery valuing Rs.86.12 lakhs became surplus (August 1976) and awaited disposal (July 1991) :-

The Ministry stated (April, 1990) :-

"Efforts are presently being made to lease the machinery to Government of Sikkim."

A proposal to set up ophthalmic lens grinding unit at Gangtok as a joint venture between Government of Sikkim and the Company is under consideration (July 1991). In this venture, out of machinery valuing Rs. 86.12 lakhs, machinery valuing Rs.34.50 lakhs is proposed to be transferred. The machinery & equipment have been found to be not in working condition and are proposed to be transferred after necessary repair, renovation and reconditioning.

2.02 Expert Group (1980)

During the next 6 years from 1973-74 to 1978-79, the production of ophthalmic glass was 506.72 tonnes against 1200 tonnes as envisaged in the T.E.C. Report, this was only 42 per cent of the achievable capacity.

With a view to suggesting measures for improving the operational and technical efficiencies of the plant, the Government of India in February, 1979 set up an Expert Group to study the working of the Company. The Expert Group recommended (January 1980) that it should be possible for the company to produce 200 tonnes of ophthalmic/optical glass (ophthalmic glass - Flint buttons : 30 tonnes; ophthalmic crown : 145 tonnes and optical glass : 25 tonnes) by appropriate management action including renovation of existing plant and installation of additional balancing equipment of the value of about Rs. 36.65 lakhs.

The Company went into details and assessed (April 1980) the revised cost (Rs. 47.83 lakhs) including additional items (Rs. 27.12 lakhs) at Rs. 74.95 lakhs. The company reassessed (September 1983) the cost of renovation and balancing equipment at Rs. 131.06 lakhs including cost of spares, civil works and erection which indicated that no thorough study of the programme was made even after a period of three years to ascertain the actual requirement. The Government of India released a sum of Rs. 76.55 lakhs upto

1989-90 (after which no further instalments were released) as plan-loan for renovation and balancing equipments. The company incurred (March 1990) a total expenditure of Rs.37.65 lakhs for renovation and installation of balancing equipments, representing 49.18% of the funds released by the Government of India. The balance amount was diverted towards non plan expenditure.

The Ministry stated (April 1990) that due to acute shortage of working capital the company had to divert plan funds temporarily to tide over the situation subject to the condition that these should be replenished as soon as adequate non-plan funds were available.

The Expert Group was also of the view that due to its economic advantage, continuous process technology should be introduced in place of batch process.

During the next five year period from 1979-80 to 1983-84 the company produced 304.08 tonnes of ophthalmic and optical glass which was merely 30 per cent of the production recommended (200 tonnes) by the Expert Group (January 1980).

The production of ophthalmic crown blanks was discontinued from 1985-86 for techno-economic reasons. The company felt (August 1985) that there was an increasing demand for sophisticated types of optical glass from the Defence and Nuclear Research establishments and accordingly the production of optical glass was proposed to be diversified to suit the changes in the demand pattern. But the actual production of optical glass came down over the years mainly because most of the sophisticated product range required by Defence establishments could not be developed (August, 1991). The conventional items already developed by the Company being available with the Central Glass and Ceramic Research Institute (C.G.C.R.I.) at a less cost (exempted from Excise duty), orders from Defence organisations were placed with C.G.C.R.I.

2.03 Expert Committee (1989)

In view of the recurring annual loss, the Government of India in September 1988 set up another Expert Committee to make a detailed assessment of its working and advise the Government regarding its future. The Committee in their report (March 1989) stressed the importance of improvement of pot index quality of glass and automation of certain production operations. As regards adoption of continuous process technology, the Committee was of the view that B.O.G.L. should explore the possibility of importing a plant capable of producing both ophthalmic as well as optical glass.

3.00 PRODUCTION PERFORMANCE

3.01 Capacity Utilisation

The production figures for the seven years 1984-85 to 1990-91 were as follows:-

| i)Year | <u>1984-85</u> | <u>1985-86</u> | <u>1986-87</u> | <u>1987-88</u> | <u>1988-89</u> | <u>1989-90</u> | <u>1990-91</u> |
|--|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|
| a)Ophthalmic blanks (in tonnes) | 27.44 | 21.12 | 21.01 | 26.62 | 39.84 | 50.09 | 50.72 |
| b)Optical glass Total (in tonnes) | <u>40.32</u> 67.76 | <u>27.25</u> 48.37 | <u>19.88</u> 40.89 | <u>8.30</u> 34.92 | <u>12.51</u> 52.35 | <u>22.27</u> 72.36 | <u>15.12</u> 65.84 |
| (Capacity of (a) and (b) - 200 tonnes) | | | | | | | |
| ii)percentage of capacity utilisation | 33.88 | 24.19 | 20.45 | 17.46 | 26.18 | 36.18 | 32.92 |
| iii)Value of production (Rs. in lakhs) | 208.69 | 118.63 | 127.48 | 103.35 | 292.30 | 260.54 | 246.58 |
| iv)Sales (Rs. in lakhs) | 176.57 | 118.37 | 84.36 | 101.40 | 226.16 | 137.69 | 168.04 |

It would be seen that during the period of seven years there was no improvement in production performance in as much as the production (382.49 tonnes) was only 27.32% of the achievable capacity. The Ministry stated (April 1990) "demand for optical glass declined due to change in defence requirements".

The sales realisation during the last seven years indicated that despite significantly low production, all the finished output could not be marketed. This also resulted in accumulation of finished goods which had been considered as "non-moving" by the company. The accumulated stock of non-moving finished goods at the end of last seven years ended 31.3.91 was as follows:-

| | |
|-----------------|-----------------|
| As on 31.3.1985 | Rs. 4.62 lakhs |
| As on 31.3.1986 | Rs. 4.84 lakhs |
| As on 31.3.1987 | Rs. 14.48 lakhs |
| As on 31.3.1988 | Rs. 14.69 lakhs |
| As on 31.3.1989 | Rs. 14.69 lakhs |
| As on 31.3.1990 | Rs. 51.14 lakhs |
| As on 31.3.1991 | Rs. 56.86 lakhs |

An analysis in audit revealed that the following main factors contributed to the low level of production:-

- a) Adoption of an outdated technology.
- b) erratic pot behaviour.
- c) irregular supply of gas, and
- d) lack of renovation and replacement of existing machinery and equipment .

Ministry stated (April 1990) "Poor work culture and low productivity are other major factors".

These factors are discussed in the succeeding paragraphs.

3.02 Outdated technology :

The plant was established for manufacture of ophthalmic blanks following a batch process technology supplied by the U.S.S.R.

In the batch process technology the glass is melted in ceramic pots. It is further processed by pouring the melted glass into moulds of suitable forms, cooling the glass blocks in annealing chambers, breaking the blocks into smaller chunks, pressing the chunks into plates and cutting the plates into small cutpieces, accurately weighed as per weights of the blanks to be pressed. The cutpieces are then pressed in a pneumatic press, finally annealed, inspected and packed.

In the continuous process technology, many of the intermediate stages are avoided. The raw material is charged directly into the electric furnace and glass comes out in the form of small gobbs from the furnace and falls into rotary presses where they are pressed into finished blanks. The yield in batch process is 45 percent as per Detailed Project Report norms which compares very unfavourably with the yield of about 90 per cent obtained in the continuous process.

In spite of recommendations made by T.E.C. (March, 1973), Expert Group (January, 1980) and Expert Committee (March, 1989) for adoption of continuous process to increase the productivity, the company continued with the batch process technology. The Ministry stated (April 1990) that there was no alternative but to continue with the batch type process and efforts were being made to acquire CPT with the assistance of UNIDO also.

M/s. CECF, France submitted (June, 1984) an offer for setting up a continuous process plant on turnkey basis. The offer was critically examined by B.O.G.L. with the help of N I D C. In May 1985, the company approved the viability report submitted (Feb. 1985) by N I D C to set up a plant based on continuous process technology at an estimated capital expenditure of Rs. 8.90 crores. The project was not, however, finalised. A revised offer from the above firm was received in January 1987 and extended from time to time upto 30.10.88.

The Govt. of India, Ministry of Industry, Department of Public Enterprises requested (May 1989) the company to ascertain from CECF, France whether they could supply a plant based on CPT which could produce both ophthalmic as well as optical glass. As requested by the company (June 89) the revised offer was received from CECF, France (Feb 1990) which was valid upto May 1990. In the offer the firm stated that the capital cost of such a plant was high and life time was short. No decision was taken on this offer.

Meanwhile, the company has proposed to include the project under 8th plan at an estimated cost of Rs. 45 crores (July, 1990). The project was proposed to be set up with UNIDO assistance and to identify the technology a four member team has been set up. The technology was yet to be identified (July 1991).

3.03 Erratic pot behaviour

In the batch process technology, as adopted by the company, ceramic pot manufactured in the ceramic shop is transferred to the melting shop. The raw material for glass is then melted in ceramic pots made of fire clay. In this technology the behaviour of the pots is crucial to the performance of the plant as a whole in terms of production output. An analysis of 'Pot Index' (ratio of number of melts achieved to the number of pots transferred into the furnace) for the last seven years ended 1990-91 revealed the following performance as against the envisaged in D.P.R. (6), in T.E.C. Report 1973 (4) and in Expert Group Report 1980 (2.5).

| <u>Years</u> | <u>Pot Index</u> |
|--------------|------------------|
| 1984-85 | 1.63 |
| 1985-86 | 1.14 |
| 1986-87 | 1.19 |
| 1987-88 | 1.42 |
| 1988-89 | 1.79 |
| 1989-90 | 2.10 |
| 1990-91 | 1.70 |

It may be seen from the above that the performance did not match the lowest expectation. The company also failed to achieve the requisite number of melts during this period of seven years ended 31st March, 1991 in as much as the annual number of melts varied between 119 and 153 against the numbers recommended in D.P.R. (644), T.E.C. Report 1973 (726) and Expert Group 1980 (600).

The poor number of melts due to cracking of ceramic pots resulted in overall low productivity.

It was noticed in audit that poor performance of pot was mainly due to non-availability of proper types of clay. The pot technology offered by the erstwhile U.S.S.R. in July 1961 was based on indigenous Jabalpur clay. But by the time the company went into production in November 1968, the Jabalpur clay mines were completely exhausted and the company had to depend on other indigenous variety not conforming to D.P.R. specification. In this connection, the experts from erstwhile U.S.S.R. also had appreciated (August, 1982) that plastic clay of required quality was not available in India. Poor performance of the pots was also due to certain technical defects like incorrect grading of grogs, thermal shock, improper firing and corrosion which influenced the life of the pots.

Besides, although automatic ramming was a prerequisite for manufacture of clay-pots for uniform pressing and densification, the company continued with the age-old pattern of manual ramming, as automatic ramming machine was not received from the erstwhile U.S.S.R. initially and also not available in India.

The Ministry stated (April, 1990) that although the company requested M/s. PROMMASHEXPORT no specific offer was received from U.S.S.R.

The production of ophthalmic and optical items was so low that it could not utilise even the available number of pots, resulting in surplus pots as indicated below:

| Year | No. of Pots available | No. of Pots consumed/ transferred/ cracked | Surplus pots | % of surplus pots to available pots |
|---------|-----------------------|--|--------------|-------------------------------------|
| 1984-85 | 169 | 100 | 69 | 40.83% |
| 1985-86 | 183 | 138 | 45 | 24.59% |
| 1986-87 | 178 | 124 | 54 | 30.34% |
| 1987-88 | 128 | 99 | 29 | 22.66% |
| 1988-89 | 123 | 90 | 33 | 26.83% |
| 1989-90 | 101 | 70 | 31 | 30.69% |
| 1990-91 | 94 | 71 | 23 | 24.47% |

3.04 Irregular gas supply:

The main fuel supply of the company was coke oven gas supplied by Durgapur Projects Limited (DPL). In June 1980, the company entered into an agreement with DPL for supply of gas which, inter-alia, stated that the requirement of gas per day would be of 3375 therms upto December 1982 and from January 1983 the quantity per day would be reduced to 2200 therms. The agreement also stated that the consumer should pay a fixed demand charge equal to half of the daily demand. The average actual daily consumption of gas during the year 1981-82 was only 1450.5 therms against the contractual demand of 3375 therms.

As regards the low consumption of gas, the Ministry stated that the fixed demand for coke oven Gas from M/s Durgapur Projects Ltd. was based on the production of 200 MT of ophthalmic optical glasses. This level of production could not be attained.

Thus, due to incorrect fixation of demand the company had to make excess payment of Rs. 8.06 lakhs towards "fixed demand charges" during the year 1981-82.

From 1984-85 the supply of coke oven gas, the main fuel supply of the company, became very erratic as DPL were unable to meet the contractual demand resulting in heavy production loss and damage to plant and equipment. Consequently, conversion to oil firing was considered to bridge the shortfall in supply. From December 1984, the supply of gas was almost totally stopped. A committee was appointed by the Board of Directors in May, 1985 (i.e. after a lapse of 5 months) and on the recommendations of the committee the stand-by system to bridge the shortfall during restriction in supply was entirely converted to oil firing system. The company spent (upto March 1987) Rs. 6.16 lakhs towards cost of installation of equipment and burners for using Light Diesel Oil (LDO). A table showing the hours for which the gas supply should have been received and actuals there - against are given below:-

| | <u>1984-85</u> | <u>1985-86</u> | <u>1986-87</u> | <u>1987-88</u> |
|---|----------------|----------------|----------------|----------------|
| Schedule hours of Supply | 8760.0 | 8760.0 | 8760.0 | 8784.0* |
| Nil Supply (hours) | 7000.0 | 8462.0 | 8760.0 | 5436.0 |
| Percentage of non-available hours to total hours. | 79.9 | 96.6 | 100.0 | 61.9 |

* Increase due to leap year.

The supply of gas was resumed in November 1987.

It has already been stated that the raw material for glass is melted in pots. After the molten glass is ready the same is cast into block which are then annealed to remove all strains. The annealed blocks are then processed through various stages to produce the required specification of glass.

The D.P.R. anticipated the yield of ophthalmic blanks from raw annealed glass as 45%. The T.E.C. Report (1973) reduced the percentage of yield to 40 to produce the achievable production of 200 tonnes of good glass. The Expert Group (1980) reassessed that a yield level of at least 35% should be aimed at in order to achieve the production targets and to ensure the economic viability of the project.

The table below indicates the production of raw annealed glass and saleable output with percentage of yield for the last seven years ended 1990-91.

| | <u>1984-85</u> | <u>1985-86</u> | <u>1986-87</u> | <u>1987-88</u> | <u>1988-89</u> | <u>1989-90</u> | <u>1990-91</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Production of raw annealed glass (tones) | 190.04 | 218.07 | 214.41 | 176.98 | 226.76 | 216.73 | 177.18 |
| Production of Saleable output (tones) | 67.76 | 48.37 | 40.89 | 34.92 | 52.35 | 72.36 | 65.84 |
| Percentage of yield | 35.66 | 22.18 | 19.07 | 19.73 | 23.08 | 33.39 | 37.16 |

It would be seen that except during the years 1984-85 and 1990-91 the percentage of yield was below 35.

During the years 1984-85 to 1986-87 due to non-availability of coke oven gas the entire operation of the plant was performed by oil firing by using LDO. As the melting furnace was basically designed only for coke oven gas, the conversion to LDO firing resulted in decline in yield of good quality glass output from the raw annealed glass.

3.05 Lack of renovation and replacement.

Although each successive committee had pointed out the need for renovation and replacement for improving the production performance of the company as already discussed in the preceding paragraph (2.2) the company had (March, 1990) incurred only 28.65% of the estimated expenditure towards renovation and balancing equipment.

The Ministry stated (April 1990) "the plant being of Russian design no indigenous suppliers were forth coming for certain critical equipments. However, there has been some response now."

4.00 MARKETING PROBLEMS

The company has been producing ophthalmic glass as well as optical glasses, items which are also imported. As the cost of production of the company is relatively high as compared to the imported cost, the purchaser usually prefer imported products. To counter the adverse market condition, the company had represented to the Government from time to time to stop/restrict the imports. The import policy of the Govt. in this regard has had a direct impact on the marketing of the Company's products, as discussed below:

a) Ophthalmic glass:

During the period from 1981 to 1983, imports were allowed through State Trading Corporation (S.T.C.) without any reference to BOGL and as a result the company had no control over marketing their products. During the period from 1984-85 to 1988-89, restrictions were imposed on import of flint button of specific range and other indices were allowed to be imported under OGL. As a result, imports were made by the traders and SSI units outside the specific range of refractive indices and the company faced problems of marketing its own products.

During 1990 a total restriction on import of all flint buttons (except barium flints) was imposed. As a result, it was possible for the company to maximise its turnover and liquidate the accumulated stock to a great extent. The Government, however, changed this policy by a public Notification in December 1990 and placed it under the list of limited permissible imports. As a result, SSI units started importing the flint buttons as a supplementary item issued by CCIE without referring to BOGL. With the availability of huge quantity of flint buttons in the open market at a cheaper price, the stock of the company had been piling up.

b) Optical Glass:

Optical glass is required mainly by Defence Organisations, Nuclear Research Stations and optical instrument manufacturers. Optical glass is indigenously manufactured by Central Glass and Ceramic Research Institute (CGCRI) and BOGL. Import of optical glass is permitted under OGL. As a result, optical instrument manufacturers mostly met their requirements through imports on price

consideration. During 1987 the company approached the Chief Controller of Imports and Exports, New Delhi, for restrictions on import of optical glasses. While requesting for restrictions, the list of optical glass produced by the company was also enclosed. But in the Import and Export Policy (1988 to 1993) optical glass was allowed to be imported under OGL by the actual users.

5.00 MANPOWER ANALYSIS:

5.01 The following table indicates the estimated requirements of the personnel as envisaged in the Detailed Project Report for the rated capacity of 300 tonnes of glass and the actual staff strength during the last seven years:-

| Sl. No. | Category of Staff | Staff as | Actual strength as on | | | | | | |
|---------|---------------------------|----------|-----------------------|---------|---------|---------|---------|---------|---------|
| | | Per DPR. | 31.3.85 | 31.3.86 | 31.3.87 | 31.3.88 | 31.3.89 | 31.3.90 | 31.3.91 |
| 1. | Industrial Staff | 712 | 391 | 389 | 390 | 399 | 399 | 395 | 391 |
| 2. | Officers-Technical | 16 | 26 | 24 | 27 | 29 | 29 | 27 | 24 |
| 3. | Officers-Non-Tech | 9 | 17 | 18 | 19 | 18 | 15 | 13 | 14 |
| 4. | Supervisory-Tech | 32 | 46 | 45 | 44 | 42 | 44 | 44 | 42 |
| 5. | Supervisory-non-technical | 10 | 5 | 6 | 6 | 7 | 7 | 7 | 7 |
| 6. | Office Staff-clerks, etc. | 23 | 78 | 81 | 85 | 85 | 81 | 74 | 75 |
| 7. | Others | 52 | 18 | 15 | 17 | 18 | 18 | 29 | 28 |
| | | 854 | 581 | 578 | 588 | 598 | 593 | 589 | 581 |

5.02 The plant achieved only 33.88%, 24.19%, 20.45%, 17.46%, 26.18%, 36.18% and 32.92% of the capacity of 200 MT (reassessed by the Techno-Economic Committee in March 1973) during the seven years ended on 31st March, 1991. The actual staff employed during that period worked out to 68.7% (average) of the total staff strength provided in the D.P.R.

5.03 The table below shows the comparative position of the turnover, value added per employee per annum, average outgo per employee per annum and number of employees during last seven years ending 31.3.1991.

| | <u>1984-85</u> | <u>1985-86</u> | <u>1986-87</u> | <u>1987-88</u> | <u>1988-89</u> | <u>1989-90</u> | <u>1990-91</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| a) Turnover (Rs. in lakhs) | 176.57 | 118.37 | 84.36 | 101.40 | 226.16 | 137.69 | 168.04 |
| b) Total value added per annum (Rs. in Lakhs) | 125.52 | 36.06 | 43.01 | 33.21 | 139.09 | 160.92 | 117.03 |
| c) Gross Benefit to employees per annum (Rs. in lakhs) | 147.53 | 162.80 | 170.32 | 184.65 | 202.97 | 274.33 | 290.05 |
| d) No. of employees | 581 | 578 | 588 | 598 | 593 | 589 | 581 |
| e) Value added per employee per annum (in Rs.) | 21604 | 6239 | 7315 | 5554 | 23455 | 27321 | 20143 |
| f) Average outgo per employee per annum (in Rs.) | 25392 | 28166 | 28966 | 30878 | 34228 | 46576 | 49923 |
| g) Average turnover per employees per annum (in Rs.) | 30391 | 20479 | 14347 | 16957 | 38138 | 23377 | 28923 |
| h) Percentage of average outgo to average value added per employee | 117.53% | 451.45% | 395.98% | 555.96% | 145.93% | 170.48% | 247.84% |

It would be seen from the above table that the value added per employee per annum ranged between Rs. 5,554 and Rs. 27,321 during the years 1984-85 and 1990-91. The percentage of average outgo per employee per annum to average value added per employee per annum ranged between 117.53% and 555.96% during the same period. The Expert Committee set up by the Government of India also noted (March 1989) that normally there should not be any rationale in allowing a company to continue its operations, the turnover of which was less than the wages. However, BOGL, apart from manufacturing flint buttons is also engaged in production of optical glass for Defence and RSW for Nuclear Research Stations. These items were of strategic importance

which were required to be produced in the country. BOGL was the only company which had the capability of producing these items. The committee was, therefore, of the view that BOGL should be allowed to continue its operations for another three years.

The Ministry stated (April 1990) that non-availability of gas followed by a prolonged strike resulted in low performance.

6.00 FINANCIAL POSITION & WORKING RESULTS

The table below indicates the financial position of the company for the seven years ending 1990-91.

| <u>Particulars</u> | <u>1984-85</u> | <u>1985-86</u> | <u>1986-87</u> | <u>1987-88</u> | <u>1988-89</u> | <u>1989-90</u> | <u>1990-91</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <u>I.Capital & Liability</u> | | | | | | | |
| <u>A.Share holders' Fund</u> | | | | | | | |
| i) Paid up capital | 556.00 | 556.00 | 556.00 | 596.00 | 596.00 | 596.00 | 596.00 |
| ii) Share suspense | - | - | - | - | | 71.00 | 71.00 |
| <u>B.Loan Fund</u> | | | | | | | |
| i) Secured Loan | 35.52 | 9.85 | 26.36 | 5.48 | 4.42 | 4.42 | 4.42 |
| ii) Unsecured loan | 1931.54 | 2330.52 | 2794.01 | 3491.34 | 4348.77 | 5268.20 | 6322.22 |
| <u>C.Current liabilities & Provisions</u> | | | | | | | |
| | 300.75 | 395.56 | 505.95 | 561.62 | 600.68 | 572.78 | 648.89 |
| Total | 2823.81 | 3291.93 | 3882.32 | 4654.44 | 5549.87 | 6512.40 | 7642.53 |
| <u>II.Assets</u> | | | | | | | |
| D.Gross Block | 459.32 | 484.79 | 487.19 | 490.19 | 542.85 | 558.04 | 561.75 |
| E.Less depreciation | 367.59 | 373.37 | 379.12 | 385.66 | 392.98 | 400.87 | 408.82 |
| F.Net Block | 91.73 | 111.42 | 108.07 | 104.53 | 149.87 | 157.17 | 152.93 |
| G.Capital work in progress | 7.94 | - | 29.51 | 32.15 | - | - | - |
| H.Other Tangible Assets | 453.16 | 404.68 | 393.71 | 478.06 | 640.44 | 724.70 | 820.22 |
| I.Misc.Exp. awaiting write off | 7.95 | 7.97 | 10.04 | 16.04 | 16.03 | 22.52 | 21.16 |
| J.Accumulated losses | 2263.03 | 2767.86 | 3340.99 | 4023.66 | 4743.53 | 5608.01 | 6648.22 |
| Total | 2823.81 | 3291.93 | 3882.32 | 4654.44 | 5549.87 | 6512.40 | 7642.53 |
| Capital employed | 29.21 | (-)463.43 | (-)975.13 | (-)1409.32 | (-)1944.40 | (-)2356.06 | (-)3135.91 |
| Net worth | (-)1714.97 | (-)2219.83 | (-)2795.03 | (-)3443.70 | (-)4163.56 | (-)4963.53 | (-)6002.38 |
| Net loss before prior period adjustment | 298.20 | 499.20 | 569.16 | 681.14 | 713.48 | 825.36 | 1029.56 |

Note 1: Capital employed represents Net block plus working capital.

Note 2: Net worth represents paid up Capital including share suspense plus reserves and surplus less intangible assets.

To sum up:

- the accumulated loss amounted to Rs. 6648.22 lakhs against paid up capital of Rs. 596.00 lakhs at the end of 1990-91. The loss in 1990-91 was Rs. 1029.56 lakhs;
- the net worth had been registering a negative trend and amounted to minus Rs. 6002.38 lakhs as on 31st March 1991;
- the capital employed was minus Rs. 3135.91 lakhs as on 31st March 1991;
- the interest outstanding and due amounted to Rs. 3460.17 lakhs as on 31st March, 1991; and
- the average outgo per employee per annum exceed the value added.

P.K. SARKAR

(P.K. SARKAR)
Deputy Comptroller and
Auditor General-cum-
Chairman Audit Board

NEW DELHI
THE

1 0 APR 1992

Countersigned

C.G. SOMIAH

(C.G. SOMIAH)
Comptroller and Auditor
General of India

NEW DELHI
THE

1 0 APR 1992

ERRATA

| <u>PAGE NO.</u> | <u>Reference</u> | <u>For</u> | <u>Read</u> |
|-----------------|----------------------------------|------------------------------|--|
| iv | 8th line from bottom | - | Delete 1984-85 |
| 9 | 15th line from bottom | of | be |
| 11 | 6th line from bottom | 28.65% | 28.73% |
| 17 | Between 3rd line and 4th line | - | insert (Rs. in lakhs) |
| 17 | 5th line from bottom | 29.21 | (-)24.29 |
| 17 | 8th line | - | <u>In 1988-89</u> ii) Share suspense Rs. 28.00 |
| 17 | 13th line | <u>1988-89</u> 600.68 | <u>1988-89</u> 572.68 |
| 17 | 5th line from bottom | <u>1988-89</u> (-)1944.40 | <u>1988-89</u> (-)1770.09 |
| 17 | 4th line from bottom | <u>1988-89</u> (-)4163.56 | <u>1988-89</u> (-)4135.56 |