

EXHIBIT VI

INFORMATION ON INDUSTRIAL DIAMOND CONSUMPTION

1. The Bureau of Mines Yearbook for 1950 states that the world production of industrial diamonds in that year amounted to 12.6 million carats, which is approximately 2-1/2 tons.
2. U.S. imports of industrial diamonds in 1950 amounted to 11 million carats, valued at \$35,445,506.
3. Some U.S. imports have gone into U.S. stockpiles and for export to friendly nations. U.S. consumption is estimated to average about 7 million carats annually. Consumption is growing, is forecast at about 8 million carats, import value \$25,000,000, annually.
4. Biggest producer of industrial diamonds is the Belgian Congo, which probably averages two-thirds of world production. Estimated that the Belgian Congo produces 75 per cent of the crushing bort used so extensively in industry. Brazilian production is minor.
5. Estimated that abrasive applications, using diamond powders in all sizes, account for nearly two-thirds of U.S. consumption by weight and about one-third by import value. About 80 per cent of this amount is used in diamond wheels, hones, and saws; the remainder in loose powders and compounds for lapping and polishing.

6. Rough bort stones, 1/4 carat and larger, not cut to shape, account for about one-third of weight and nearly one-half of value. These are impregnated in a matrix and used principally for abrasive wheel truers and dressers and for drill bits.

Large stones, about 4 to 10 carats, and cuttable stones, represent only about 2 or 3 per cent of consumption by weight, but about 20 per cent of import value. These are used for wire-drawing dies, single-point abrasive wheel dressers, and trueing and boring tools for nonferrous or non-metallic materials.

7. It has not been possible to determine whether or to what extent industrial diamond prices have been inflated by monopolistic control of the diamond industry. Although profits of most diamond mining companies have been high in recent years, heavy deficits have been increased in other years and prices of five leading diamond stocks have increased only 5 per cent since World War II.

8. If artificial industrial diamonds could be produced for sale at a price substantially below current prices of natural diamond, it is believed that the market would expand, especially in the abrasives field where diamond cost is a large part of the total cost; but to a lesser extent in other fields (dies, trueing and boring tools, etc.) where fabricating cost is large related to the cost of the rough diamonds used. If such production were possible in the U. S., largest user of industrial diamonds, it would assure this country of a source not subject to blockade and other vagaries of war.

9. GE does not purchase any appreciable amount of raw industrial diamonds, but uses many diamond-studded tools and dies.

TABLE I

Estimate on Division of the Industrial Diamond Market in the U. S.

| | <u>Million Carats</u> | <u>Million Dollars</u> | <u>% Carats</u> | <u>% Dollars</u> | <u>Average \$/Carat</u> |
|---|---------------------------|----------------------------|---------------------|----------------------|-----------------------------|
| Total U. S. consumption | 8.0 | 25.0 | 100 | 100 | 3.12 |
| Abrasives (wheels, powders, compounds) | 5.2 | 8.3 | 65 | 33 | 1.60 |
| Bort stones uncut, about 1/4 carat and larger (dressers, drill bits, etc.) | 2.6 | 11.7 | 32 | 47 | 4.50 |
| Large stones and cuttables | 0.2 | 5.0 | 3 | 20 | 25 |

TABLE II

Estimated World Diamond Production, Total and Industrial
(Year 1949, by Countries, in Thousands of Carats)

| <u>Country</u> | <u>1949 Est'd. Production</u> | <u>% of Total</u> | <u>Est'd. % Industrial</u> | <u>Est'd. Production of Industrial</u> | <u>% of Total Industrial</u> |
|-----------------------------|-----------------------------------|-----------------------|--------------------------------|--|--------------------------------------|
| Belgian Congo | 9,650 | 70.8 | 98 | 9,457 | 82 |
| Union of South Africa | 1,254 | 9.2 | 25 est | 314 est | 3 est |
| Angola | 770 | 5.6 | 44 | 338 | 3 |
| Sierre Leone | 494 | 3.6 | 66 | 326 | 3 |
| Gold Coast | 433 | 3.2 | 84 | 364 | 3 |
| South West Africa | 280 | 2.1 | 85 est | 238 est | 2 est |
| Tanganyika | 192 | 1.4 | 20 | 38 | - |
| French Equatorial Africa | 123 | 0.9 | 85 est | 105 est | 1 |
| French West Africa | <u>95</u> | <u>0.7</u> | <u>93</u> | <u>88</u> | <u>1</u> |
| <u>Total Africa</u> | 13,291 | 97.5 | 85 est | 11,268 est | 98 est |
| Brazil | 250 | 1.8 | 70 | 175 | 2 |
| Other Countries | <u>94</u> | <u>0.7</u> | <u>50 est</u> | <u>47 est</u> | <u>-</u> |
| <u>World Total</u> | 13,635 | 100.0 | 84 | 11,490 est | 100 |

[Source: W. F. Foshag & George Switzer, Smithsonian Institution]