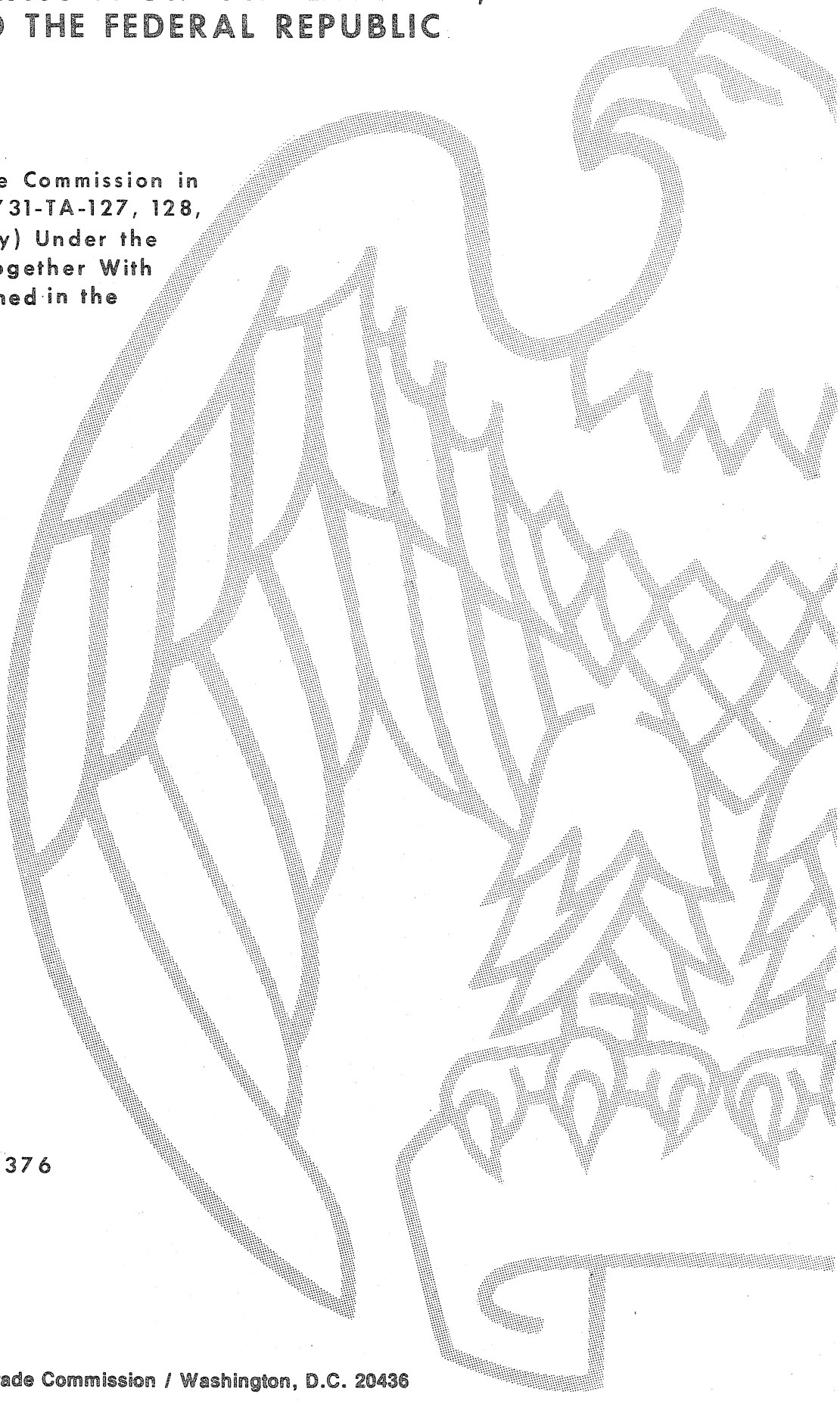
THIN SHEET GLASS FROM SWITZERLAND, BELGIUM, AND THE FEDERAL REPUBLIC OF GERMANY

Determinations of the Commission in Investigations Nos. 731-TA-127, 128, and 129, (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigations



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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Note.-- Information which would disclose confidential operations of individual concerns may not be published and therefore has been deleted from this report. These deletions are marked by asterisks.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

Investigations Nos. 731-TA-127, 128, and 129 (Preliminary)

THIN SHEET GLASS FROM SWITZERLAND, BELGIUM,
AND THE FEDERAL REPUBLIC OF GERMANY

Determinations

On the basis of the record 1/ developed in the subject investigations, the Commission determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is no reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports from Switzerland, Belgium, and the Federal Republic of Germany of thin sheet glass, provided for in items 542.11 and 542.13 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value (LTFV). 2/

Background

On March 16, 1983, counsel for Jeannette Sheet Glass Corp. filed a petition with the Commission and the Department of Commerce alleging that imports of thin sheet glass from Switzerland, Belgium, and the Federal Republic of Germany are being sold in the United States at LTFV, and that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is

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1/ The record is defined in sec. 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(i)).

2/ The Commission made separate determinations concerning regular-quality and high-quality thin sheet glass in these investigations. Commissioner Stern dissented with respect to the regular-quality glass in all three cases, finding that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of that product which are alleged to be sold in the United States at LTFV.

materially retarded, by reason of imports of such merchandise. Accordingly, effective March 16, 1983, the Commission instituted preliminary antidumping investigations under section 733(a) of the Act (19 U.S.C. § 1673b(a)).

Notice of the institution of the Commission's investigations and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register on March 30, 1983 (48 F.R. 13280). The conference was held in Washington, D.C. on April 11, 1983, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF CHAIRMAN ALFRED ECKES AND COMMISSIONER VERONICA A. HAGGART

We determine that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury [1/] by reason of imports of regular quality thin sheet glass from Switzerland, Belgium or the Federal Republic of Germany, which are allegedly sold at less than fair value. [2/] In addition, we determine [3/] that there is no reasonable indication that the establishment of an industry in the United States is being materially retarded [4/] by reason of imports of high quality thin sheet glass from Belgium or the Federal Republic of Germany, which are allegedly sold at less than fair value. [5/] [6/]

1/ Material retardation was not at issue with respect to regular quality thin sheet glass because that product is currently produced in the United States. Thus, material retardation of the regular quality thin sheet glass industry will not be discussed further in this opinion.

2/ Commissioner Stern dissenting.

3/ Commissioner Stern joins with Chairman Eckes and Commissioner Haggart to form a unanimous Commission on the issues of definition of the domestic industry and material retardation. Her additional views follow.

4/ No domestic producers have entered the high quality thin sheet glass market. Thus, material injury or threat of material injury to a high quality thin sheet glass industry are not at issue and will not be discussed further in this opinion.

5/ Material retardation was not alleged against Switzerland because that country does not export high quality thin sheet glass to the United States. See Commission report at A-24.

6/ The record in this investigation contains substantial amounts of business confidential information. Such information can be referred to only in general terms.

Domestic industry: Views of the Commission

Section 771(4)(A) of the Tariff Act of 1930 defines the term "industry" as "the domestic producers as a whole of a like product or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 7/ "Like product" is defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation under this subtitle." 8/ The imported product which is the subject of these investigations is thin sheet glass. 9/

Sheet glass is a type of transparent flat glass with a smooth fire-polished surface produced by a drawing process. 10/ Sheet glass is one of three types of flat glass. The other two types of flat glass are plate glass and float glass. 11/ With respect to thickness, thin sheet glass ranges in thickness from 0.026 inch to 0.065 inch (0.6mm to 1.65mm). 12/

7/ 19 U.S.C. § 1677(4)(A).
8/ 19 U.S.C. § 1677(10).
9/ These imports are classified for tariff purposes under items 542.11 and 542.13. These items are distinguished on the basis of weight and size of sheet. Commission report at A-2-3.
10/ Id. at A-3.
11/ Thin sheet glass is distinguished from plate glass and float glass by its mode of production and thickness. Sheet glass is manufactured through a drawing process, while a rolling and grinding process is used to manufacture plate glass. Float glass is produced by floating molten glass over a bed of molten tin. See Commission report at A-2 through A-5 for a detailed description of sheet glass production methods. Thin float glass, approximately 1mm thick, has been produced on an experimental basis. Thin float glass production on a commercial basis, however, is not yet economically feasible. Id. at A-3, n.1; Conference transcript (TR) at 88, 92, 133, 154-55.
12/ Commission report at A-3.

Differences in technical standards required, uses, and price separate thin sheet glass production into two distinct categories. These are high quality thin sheet glass and regular quality thin sheet glass. 13/

High quality thin sheet glass must meet stringent standards for flatness, size and number of inclusions,14/ number of surface defects and cutting and dimensional tolerances. 15/ These standards vary with the specific customer, and purchasers may require extensive qualification procedures. 16/ High quality thin sheet glass is used primarily as photographic slide glass and as optical coating glass for instrumentation having light emitting diodes (LED) and liquid crystal display (LCD) applications, such as computer terminal displays, pen watches, and clocks. 17/

Regular quality thin sheet glass does not meet the strict specifications required for high quality applications. Regular quality thin sheet glass is used primarily in microscope slides, cosmetic mirrors, and lantern slides (a portion of a slide projector). 18/

Both high quality and regular quality thin sheet glass are imported into the United States. Although the sole Swiss producer of thin sheet glass,

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13/ Both regular and high quality thin sheet glass are produced in a range of thicknesses and differ in iron-oxide content. Sheet glass with a higher iron-oxide content appears green when viewed through the edge. The color of the glass does not affect the function of the glass in any end product; nor does the color affect the price of the raw glass. Commission report at A-33; TR at 49-50, 127. Therefore, these differences in thicknesses and color do not justify finding distinct like products for each thickness or color.

14/ Inclusions refer to defects in the glass such as opaque spots, knots, stones, closed blisters, and seeds.

15/ Commission report at A-3 & n.2.

16/ TR at 98.

17/ Commission report at A-3, A-5.

18/ Id. at A-5.

Erie-Electroverre, manufactures both high quality thin sheet glass and regular quality thin sheet glass, the company exports only regular quality glass to the United States. 19/ The Belgian firm, Glaverbel, S.A., produces 20/ and exports to the United States both high quality and regular quality thin sheet glass. The West German firm, Flachglas, A.G., also produces and exports both qualities of thin sheet glass to the United States. 21/

Based on the substantial differences in characteristics and uses between high quality and regular quality thin sheet glass, we find that there are two like products. The domestic producer, Jeannette Sheet Glass Corporation (Jeannette), manufactures only regular quality thin sheet glass. 22/ Thus, we find that there is one domestic industry consisting of Jeannette Sheet Glass Corp., the sole domestic producer of regular quality thin sheet glass. Furthermore, Jeannette is the sole U.S. company attempting to establish a high quality thin sheet glass industry in the United States. 23/ It alleges

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19/ TR at 132.

20/ There are four methods used to manufacture sheet glass: the Fourcault, Asahi, Coburn, and Pittsburgh methods. The Fourcault, Asahi, and Pittsburgh processes employ a vertical drawing method. The Colburn process draws horizontally. Commission report at A-4. The Belgians use the Colburn process and allege that it is a superior process for making thin sheet glass. The Swiss, West Germans and American firms use the Fourcault process. The Swiss and West Germans make acceptable regular quality thin sheet glass with this process. In addition, the West Germans account for the majority of high quality thin sheet glass imported to the United States and produce it by the Fourcault method. Id. at A-22.

21/ Id.

22/ Id. at A-8.

23/ TR at 19, 98; conf. exs. 3 and 4 to petitioner's preconference brief and material retardation discussion infra at 13.

that imports of both qualities of glass sold at less than fair value have materially retarded the company's entry into this market. 24/ We will first discuss material injury or threat of material injury to the regular quality thin sheet glass industry. We will then discuss material retardation of the establishment of the high quality thin sheet glass industry.

I. No Reasonable indication of material injury or threat of material injury to the regular thin sheet glass industry by reason of imports allegedly sold at less than fair value

A. The condition of the domestic industry

In assessing the condition of the domestic industry, we have focused on that portion of the Jeannette's operation allocated to the production of regular quality thin sheet glass. 25/ Jeannette began producing thin sheet glass in March of 1980 when it reopened a plant formerly owned by ASG, Inc. and Fourco Glass Co. The plant was built in 1898. Before it reopened in 1980, Jeannette rebuilt the tank 26/ and refurbished other machinery in the plant. 27/ In September 1980, Jeannette entered into a contract with General Glass International (GGI) to market all of Jeannette's thin glass production. 28/

24/ Petitioner's preconference brief at 66.
25/ Jeannette also produces thicker types of sheet glass for use as window glass and other similar applications. Commission report at A-8. These products are not the subject of these investigations and thus are not relevant to the question of material injury or threat of material injury to the regular quality thin sheet glass industry.
26/ The tank, or furnace, is where the raw materials are melted and reduced to molten glass at temperatures close to 3,000 degrees Fahrenheit. The tank runs continuously and must be rebuilt every 5-7 years. Id. at A-3-4.
27/ TR at 16.
28/ Commission report at A-10.

Although thin sheet glass production constitutes a limited portion of Jeannette's total production of sheet glass, thin sheet glass has been the profit center for the company. 29/ Throughout the period of investigation,thin sheet glass production has been not only profitable but these profits have remained comparatively stable. This trend is shown in Jeannette's net operating figures for thin sheet glass production. 30/

Although profit as a percent of net sales remained fairly steady, other indicators of the condition of the domestic industry showed fluctuating trends. Domestic consumption of regular quality thin sheet glass declined throughout the period under investigation, declining a total of 10 percent from 1980 through 1982. 31/ Domestic production, shipments, and capacity utilization rose from 1980 to 1981 and then declined from 1981 to 1982. 32/ Employment remained stable and hours worked increased from 1980 to 1981. However, both factors declined from 1981 to 1982. 33/ Inventories of regular quality thin sheet glass increased throughout the period under investigation. 34/

29/ Id. at Tables 6 and 7, A-16-19.
30/ Id. at A-18. The Commission used the full-absorption method of allocation based on units of production in calculating profit on thin glass sales. Petitioner argued that costs in 1982 should be allocated on the basis of average 1981-82 thin sheet glass production. We found this methodology unacceptable for two reasons. First, a substantial portion of Jeannette's thin glass production capacity can and has been converted to thicker sheet glass production. Thus, cost allocation on the basis of thin glass capacity would overstate the costs actually attributable to thin glass production. Second, use of this allocation method solely in 1982 would preclude meaningful comparisons with profit figures in prior years when Jeannette used a different cost allocation method.
31/ Id. at A-25-26.
32/ Id. at A-11-14 (1980 data based on three quarters of production).
33/ Id. at Table 4, A-15.
34/ Id. at A-14. Jeannette sells all of its production to GGI who then holds the inventories for future sale. Id.

B. Causation

Section 733(a) of the Tariff Act of 1930 requires the Commission to determine whether there is a reasonable indication that an industry in the United States is materially injured, or threatened with material injury "by reason of imports of the merchandise which is the subject of the investigation by the administering authority." We find that the difficulties experienced by the domestic industry are not caused by the allegedly less than fair value imports from Switzerland, Belgium, or the Federal Republic of Germany. In reaching this conclusion, we considered among other things, underselling by imports, lost sales, and price suppression resulting in lost revenues. 35/ 36/ Furthermore, we analyzed the question of causation on an individual country basis. 37/

In assessing whether a reasonable indication of a threat of material injury exists, the Commission must base its determination on evidence showing that the likelihood of injury is real and imminent and not mere supposition, speculation or conjecture. 38/ We find that the record in these

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35/ Jeannette alleged lost revenues from sales in 1980 and 1981 far exceeding the company's reported net sales of thin sheet glass in those years. Id. at A-40-41.

36/ Commissioner Haggart notes that in many investigations purchasers state that quality is the reason for buying the imported product. In these investigations, she considered these claims in conjunction with the high incidence of underselling by Jeannette and the company's own admission that it had quality problems. See discussion infra at 10-13.

37/ Commissioner Haggart has declined to cumulate the effect of imports from these three countries in these investigations because the circumstances are not appropriate for cumulation. Furthermore, the level of imports from each country considered individually is sufficiently high so as to make cumulation unnecessary.

38/ S. Rep. No. 249, 96th Cong., 1st Sess. 88-89 (1979).

investigations does not reasonably indicate that an industry in the United States is threatened with material injury by reason of alleged less than fair value imports of regular quality thin sheet glass from Switzerland, Belgium, or the Federal Republic of Germany.

Imports from Switzerland

Information on the record with regard to purchaser's prices 39/ indicates that, on a weighted average basis, the domestic product was frequently priced higher than the products imported from Switzerland. 40/ The Commission received information on three thin glass products sold during the period from January 1981 through March 1983. In eighteen of twenty-two price comparisons, the comparable domestic product undersold the Swiss product. 41/ In three of the four instances of underselling by the imports, the margin of underselling was minimal. The fourth instance was a price negotiated on a long term contract. 42/

Petitioner alleged lost sales to two firms which purchased Swiss imports. In both instances, the purchaser stated that Jeannette's product was

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39/ While it is unusual for purchaser pricing data to be available in preliminary investigations, the Commission received price data from purchasers in the subject investigations. These purchasers' responses reflect a substantial proportion of the market for regular quality thin sheet glass and are representative of the industry.

40/ Commission report at A-28-29. The Commission requested purchaser's price information on four regular quality thin glass products imported from the three countries. These products were 1mm microglass imported in sizes up to 30 united inches and over 30 united inches and 1.2mm lantern glass in sizes of 16-30 united inches, inclusive, and in sizes of 31-60 united inches, inclusive.

41/ Id.

42/ Id. at A-32.

of lower quality than the Swiss product. 43/ One firm stated that this quality difference caused their declining orders, while the second still purchases a substantial portion of its needs from Jeannette. 44/

Jeannette also alleged that it lost revenues from sales to six firms because of Swiss imports. 45/ Four of the six firms 46/ reported quality problems which affected the quantity of glass purchased from Jeannette. 47/ One of these firms pays a premium for Swiss thin sheet glass because of its quality. This firm stated that it would continue to buy the Swiss product even if the price increased. 48/

The Swiss industry has limited capacity, 49/ and Erie-Electroverre has not indicated any plans to shift more of their sales of thin sheet glass from the European markets to the United States. In addition, Erie Scientific 50/ accounts for the vast majority of imports from Switzerland. and the two firms have recently become affiliated. 51/ Furthermore, Erie-Scientific does not

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43/ Id. at A-39-40.
44/ Id.
45/ Id. at A-40-42.
46/ Of the two firms who do not have quality problems with Jeannette's regular quality glass, one firm produces a product which does not have the same quality requirements as the other firms. The second firm purchases all of its glass from Jeannette. Id. at A-41-42.
47/ Id. at A-41-42.
48/ Id. at A-41.
49/ Id. at A-21.
50/ Sybron Corp., the parent corporation of Erie Scientific, purchased Erie-Electroverre in January 1983. TR at 129. Erie Scientific is a major U.S. manufacturer of microscope slides and imports thin sheet glass from all three countries in these investigations. Id. at A-24.
51/ Id. at A-24.

immediately plan to change its current product mix which limits the amount of thin white sheet glass that it needs. 52/

Imports from Belgium

The Commission has purchasers' price information 53/ on three products imported from Belgium. These prices also show a pattern of underselling by the domestic product. In ten instances the Belgian product was priced significantly above the comparable domestic product. 54/ In contrast, minimal levels of underselling by the Belgian firm were reported in five instances on two of four products. On a third product, there was one instance of a special contract price resulting in a higher margin of underselling for one quarter in 1982. 55/

Jeannette alleged lost sales and lost revenue from sales to four firms to imports from Belgium. 56/ Two of these firms stated that imports are higher quality and that quality influenced their purchasing decisions. 57/ None of the firms cited price as the determinative factor.

The Belgian industry has stated that it has very high levels of capacity utilization and that it has no plans to expand exports to the United States. Furthermore, Glaverbel, the Belgian producer, does not maintain any inventory, but only produces orders as they come into the firm. 58/

52/ TR. at 121.
53/ See note 39, supra, at 10, for discussion of available pricing information.
54/ Commission report at A-30-32.
55/ Id.
56/ Id. at A-39-42.
57/ One of the two firms that had no problem with the quality of Jeannette's glass manufactures a product that does not require the same quality levels as other regular quality thin sheet glass applications. The other firm purchases only Jeannette thin sheet glass. Id. at A-41-42.
58/ TR at 149.

Imports from the Federal Republic of Germany

The Commission did not receive information on purchaser's prices paid for imports of regular quality thin sheet glass from West Germany. There were no lost sales allegations against imports from West Germany. Jeannette alleged lost revenues from sales to four firms because of imports from West Germany. 59/ Two of three firms responding reported quality problems that affected their purchase of the domestic product. Price was not cited as a determinative factor. 60/

Flachglas, the West German firm, has recently rebuilt its tank. The new tank has a substantially reduced capacity to produce thin sheet glass. 61/ Furthermore, Flachglas maintains only limited inventories in West Germany, 62/ and intends to focus on the high quality thin sheet glass market in the future. 63/

II. No reasonable indication of material retardation of the establishment of a high quality thin sheet glass industry: Views of the Commission

Jeannette alleges that low priced imports of high quality thin sheet glass imported from Belgium and West Germany have retarded the establishment of a high quality thin sheet glass industry in the United States. 64/ Thus, the Commission must determine whether "the establishment of an industry in the United States is materially retarded, by reason of imports of the merchandise

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59/ Id. at A-40-42.
60/ Id.
61/ Id. at A-25; TR at 77.
62/ TR at 83.
63/ Id. at 77.
64/ Petitioner's preconference brief at 49.

which is the subject of the investigation by the administering authority. ..."[65/]

In prior investigations, the Commission has determined that in instances involving an industry that has not yet commenced production, there must be a sufficient indication that the industry has made a substantial commitment to commence production. [66/] Furthermore, the Commission has determined that material retardation should be assessed on a case-by-case basis. In applying these standards to the present investigations, we find that despite its apparent interest in entering the market, Jeannette's efforts to date have not demonstrated a substantial commitment to commence production of high quality thin sheet glass.

Jeannette maintains that it produces some high quality thin sheet glass and argues that all it needs to compete in the major proportion of the high

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65/ 19 U.S.C. § 1673b (2). Jeannette also argued that the Commission should consider injury to the regular quality thin sheet glass industry in determining whether imports have materially retarded the establishment of a high quality thin sheet glass industry. Petitioner's preconference brief at 66. The Commission has determined that regular quality thin sheet glass is a separate domestic industry. Thus, it would be inappropriate to consider injury to the regular quality thin sheet glass industry for purposes of assessing material retardation of the establishment of a high quality thin sheet glass industry.

66/ See, e.g., Certain Commuter Airplanes from France and Italy, Inv. Nos. 701-TA-174 and 175 (Preliminary), USITC Pub. No. 1296 (1982); Salmon Gill Fish Netting of Manmade Fibers from Japan, Inv. No. 751-TA-5, USITC Pub. No. 1234 (1982); Motorcycle Batteries from Taiwan, Inv. No 731-TA-42, USITC Pub. No. 1228 (1982); Synthetic L-Methionine from Japan, Inv. No. 751-TA-4, USITC Pub. No. 1167 (1981); cf. Certain Ultra-Microtome Freezing Attachments, Inv. No. 337-TA-10, USITC Pub. No. 771 (1976).

quality thin sheet glass market is testing equipment. 67/ This equipment, which would cost approximately $250,000, would allow Jeannette to sort the glass currently produced by Jeannette into high quality and regular quality glass. 68/ The equipment would not directly affect the quality of the glass produced.

Jeannette has experienced numerous problems in meeting potential customer's specifications for high quality glass. 69/ Although GGI and Jeannette have submitted samples to several potential customers for high quality thin sheet glass, their samples have never met the customers' quality requirements. In two instances Jeannette's glass passed preliminary tests, but after further processing and testing, these companies discovered quality

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67/ TR at 19-20. Jeannette states that it would need additional equipment to compete in the remaining 10 percent of the high quality market. This equipment would involve a considerable investment, although Jeannette did not provide an estimate on the expense. Commission report at A-22, petitioner's preconference brief at 59.

68/ TR at 22. At the conference conducted in connection with these investigations, counsel for Jeannette stated that within one year after the publication of the finding of dumping, Jeannette "will be into that investment, and close to producing high quality glass." Id. at 57-58. However, counsel also stated that the company must improve its profit performance before it can approach capital markets regarding the financing of this equipment. The latter statement, which contradicts previous statements that the necessary equipment was financially within the company's reach, indicates that petitioners' ability to finance this equipment is highly speculative. See petitioners' preconference brief at 63.

69/ Petitioner stated that in 1980 an outside consultant did a study on Jeannette's production facility and determined that the company could enter the high quality market if Jeannette had the testing equipment. Petitioner's preconference brief at 60. Jeannette, however, did not provide the Commission with this study for evaluation. Furthermore, at the conference the staff requested information on the percentage of total assets that would be represented by the $250,000 investment. TR at 22. Although given the opportunity to present this information in a confidential submission, Jeannette did not provide this requested information.

deficiencies in Jeannette's glass. 70/ Thus, we find that a fundamental question exists regarding whether Jeannette can actually produce the high quality product.

This fundamental problem overshadows Jeannette's other efforts to enter the market. Jeannette refurbished an old production facility and installed an energy saving device on the furnace. 71/ These efforts, however, were directed at commencing production of all types of glass in the facility. The installation of the energy saving computer on the firm's furnace is not directly related to its problems in entering the high quality sheet glass market. 72/ Additionally, marketing efforts for high quality thin sheet glass have been characterized by at least one customer as not as aggressive as other producer's marketing efforts. 73/ 74/ This lack of success in marketing may have been the result of not having the appropriate product to sell.

70/ Petitioner's preconference brief at 62-62; conf. exs. 3, 4 to petitioner's preconference brief; TR at 98.

71/ Erie Scientific considered buying the Jeannette facility when ASG closed the plant in 1978. Erie, however, determined that the capital investment required to reopen the plant and make the necessary improvements would be prohibitive. TR at 122.

72/ Jeannette's primary quality-related problem is its failure to achieve flatness specifications on a continuous basis. TR at 19, 22-21. The furnace computer will monitor natural gas usage, raw material levels, and temperature in the tank. This computerized system is expected to provide savings in natural gas costs. Petitioner's preconference brief at 46. In addition, it may have some marginal impact on other quality factors, such as inclusions, by more precisely controlling raw material levels and batch melting temperatures. The glass flatness is determined later in the production process, i.e. during the drawing operations. Handbook of Glass Manufacture II, 1960 at 23.

73/ TR at 103.

74/ See Certain Commuter Airplanes from France and Italy, Inv. Nos. 701-TA-174 and 175 (Preliminary), USITC Pub. No. 1296 (1982).

For the foregoing reasons, we find that the petitioner has failed to show a substantial commitment to commence production of high quality thin sheet glass in the United States. Thus, we determine that there is no reasonable indication that an industry in the United States is being materially retarded by reason of imports of high quality thin sheet glass from Belgium or the Federal Republic of Germany.

Views of Commissioner Paula Stern

I disagree with the majority determination that there is no reasonable indication that the domestic industry producing regular quality thin sheet glass is materially injured or threatened with material injury by the imports of regular quality thin sheet glass which are the subject of these investigations. 1/

One firm constitutes the entire domestic industry in this investigation. In 1979 the firm was purchased by employees after it was closed by the previous owner. 2/ The

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1/ I concur with the majority view that there is one domestic industry consisting of the sole potential domestic producer of regular quality thin sheet glass, and another potential industry which corresponds to the high quality thin sheet glass product. I also concur with the majority view that petitioner has not evidenced a sufficient commitment to enter into the high quality thin sheet glass market to warrant a determination that there is a reasonable indication that the imports of high quality thin sheet glass under investigation have materially retarded a potential domestic industry. See Views, p.7.

2/ The development of float glass technology apparently contributed to the previous owner's decision to close the company. However, float glass technology does not, as yet, pose a competitive threat to the thin sheet glass which is the subject of this investigation. See Report at A-2.

employees each purchased stock in the company, the proceeds of which were used to rebuild its melting tank and refurbish equipment. 3/ Jeannette's plan was to focus on expanding its share of the thin sheet glass market, which continued being a profitable niche in the sheet glass market. 4/ It also intended to enter the even more profitable arena of high quality thin sheet glass. 5/ At the time Jeannette commenced operations, the imports under investigation held 100 percent of the domestic market for this product. 6/ Jeannette has experienced problems in attempting to gain some of the imports' market share and in competing with these imports. Consequently, Jeannette is currently experiencing economic difficulties with respect to the regular quality thin sheet glass product. In addition, there are reasonable indications that the allegedly LTFV imports under investigation are exerting downward pressure on domestic prices, and that this, in turn, may be a significant factor in explaining the several documented shifts in sourcing from the domestic product to the imports under investigation. Thus, I believe that these investigations should have been continued.

3/ Report at A-11-12.

4/ Tr. at 12.

5/ Tr. at 20-24, 56.

6/ Report at A-33 (Table 8.)

Condition of the Industry 7/

Jeannette began producing regular quality thin sheet glass 8/ in March 1980. Therefore, in discussing trends, I shall focus primarily on the period 1981-1982, for which full-year data are available. Furthermore, I note that my examination of the condition of the domestic industry refers, as it must legally, only to its regular quality thin sheet glass product line. 9/

Although domestic consumption of thin sheet glass declined somewhat between 1980 and 1982 10/, domestic production 11/, shipments 12/, capacity utilization 13/, employment 14/

7/ Because the domestic industry in this investigation consists of only one domestic producer, much of the information is confidential. Therefore, my analysis is necessarily limited to general characterizations.
8/ Hereinafter the term "thin sheet glass" refers only to regular quality thin sheet glass unless otherwise specified.
9/ The petitioner has provided the Commission with information regarding economic and financial factors on an allocated basis. Theoretically, care has been taken to remove the effects of difficulties that Jeannette may be encountering in its overall operations. See profit and loss information in Table 6, Id. at A-17.
10/ Report at A-25.
11/ Id. at A-11.
12/ Id. at A-12.
13/ Id. at A-11
14/ Hourly wages also declined over the 1980 1982 period. Id. at A-14.

and sales 15/ of thin sheet glass declined substantially during the same period. Accordingly, operating and net income, and cash flow followed a similar downward trend. 16/

The ratio of operating income to net sales, although it declined slightly between 1981 and 1982, has remained favorable. 17/ However, while on its face, this appears to be an indicator of financial health, it actually masks other significant indicia of material injury. 18/ Jeannette is currently experiencing severely curtailed sales, operating and net income, and cash flow. 19/ Petitioner maintains that these latter indicia of injury have had a negative impact on the firm's ability to make the capital investments necessary to improve its production process. 20/

15/ Id. at A-17.
16/ Id.
17/ Id.
18/ In worker buy-back cases such as this, it is entirely possible that part of the relatively high operating profit to sales ratio is attributable to self-imposed reductions in the number of hours worked and/or wages in order to provide profits to plough into further investment. In effect, losses which ordinarily show as capital losses are disguised as employment losses instead. In this case, both the numbers of employees and hours worked have declined substantially, and wages have declined slightly during the period under investigation. Thus, the facts of this case suggest that it is appropriate for the Commission to apply a broader analysis of profitability than is ordinarily required in a more typical case. Had this investigation been continued, I would have examined this issue further.
19/ Id. at A-17.
20/ Id. at A-20.

Reasonable Indication of Material Injury

In determining the issue of material injury, the statute directs us to consider (1) the volume of the imports under investigation, both in absolute and relative terms; (2) the effect of the imports under investigation on prices in the United States for like products, and (3) the impact of the imports on domestic producers of like products. 21/

The domestic industry's share of the domestic market for regular quality thin sheet glass is small relative to total import share, and growing smaller. 22/ In contrast, the respective market shares held by imports 23/ from Belgium and West Germany have grown, and Switzerland's market share, which is significant, has remained relatively stable. 24/

21/ 19 U.S.C. section 1677 (7)(B).
22/ Report at A-27. Specific information on imports and market share is confidential.
23/ Imports from Belgium, Switzerland and West Germany accounted for virtually all of U.S. imports of regular quality thin sheet glass during the 1980-1982 period. Because of the significant market share held by each of the countries under investigation, I have made my determination on an individual country basis. Therefore, I find it unnecessary to reach the issue of cumulation. See Id. at A-23 and A-26.
24/ Id. at A-26.

In addition, although the information on the record is mixed, there are some indications that the imported products from Belgium and Switzerland, have undersold the domestic product, particularly during 1982. 25/ Furthermore, there are also indications that many purchasers have shifted their sourcing from the domestic producer to each of the imports under investigation. 26/

The key issue in this investigation has been whether this shift occurred solely due to alleged quality problems with the domestically produced product. Although quality is clearly an important factor, the parties to this investigation have agreed that both price and the quality of the product are important considerations in a purchasing decision. 27/ Specifically, increased yield resulting from use of a product of good quality may offset the greater price of the better quality product. Conversely, the lower yield resulting from use of a product of lesser quality could be offset by the price of the inferior quality product. 28/

25/ Id. at A-33-34.
26/ Id. at A-39.
27/ Tr. at 80, 114, 144.
28/ See, e.g., Confidential Brief on Behalf of XXX at 12.

Quality did not constitute a problem for at least two customers contacted by staff. 29/ Although some purchasers maintain that their decision to purchase the imported products in lieu of the domestic product was made solely on the basis of quality, other information on the record indicates that some of these same purchasers have bought or would buy the domestic product if the price was sufficiently low to cover the loss in yield attributable to quality problems 30/ Furthermore at least one purchaser is able to quantify the loss in yield attributable to quality and has attempted to bargain regarding the price of the domestic product based on this quantification. 31/ In sum, quality is but one factor - not the sole, overriding one -- in the calculation of an acceptable purchase price.

Thus, the quality issue alone does not explain why customers shifted from Jeannette to imports. As I noted in

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29/ Report at A-42.

30/ Id. at A-40-42; Petitioner's Post Conference Brief, Confidential Ex. 4 and Confidential Appendices 4 and 6

31/ Petitioner's Post Conference Brief at 23; Brief on Behalf of XX at 20; and Appendix 3, Affidavit of XXX at 5 and 7, May 18, 1982 memo at 2-3, and October 29, 1981 memo at 1.

Certain Fresh Potatoes from Canada, 32/ the pricing of an imported product that may be of greater quality than a domestic product, and which commands a price higher than the corresponding domestic product, nevertheless may exert downward pressure on the pricing of the domestic product. In addition, the pricing of the imported product may result in a purchasing decision to shift sourcing from the domestic product to the higher quality imported product. Alleged LTFV margins may be used, in effect, to underwrite a smaller quality premium than the market would otherwise generate. There is a reasonable indication that such a situation is present in each of these investigations before us. 33/

It was not possible, based on the best information currently available, to draw any definitive conclusions on this issue. Had the investigation been continued, I would have examined the effect of the apparent quality differential on prices. But without the actual LTFV margins or further information on the value of quality differences, I am not able to discount the possibility that LTFV sales of the imports have materially injured the domestic industry.

32/ Inv. No. 731-TA-124 (Preliminary) (USITC Pub. No. 1364) (March 1983)

33/ For imports from Belgium, see Report at A-33-34 (Table 12), A-36-37 (Table 13) and A-39-42. For imports from Switzerland, see id.. No pricing information was provided from customers regarding imports from Germany, but there are other indications that they are priced at or below the domestic product. See Id. at A-36-37 (Table 13), A-39 and Petitioner's Revised Pre-Conference Brief, Confidential Exhibit 2.

INFORMATION OBTAINED IN THE INVESTIGATIONS

Introduction

On March 16, 1983, petitions were filed with the U.S. International Trade Commission and the Department of Commerce by counsel on behalf of Jeannette Sheet Glass Corp. (Jeannette) alleging that imports of thin sheet glass from Switzerland, Belgium, and the Federal Republic of Germany (West Germany) are being sold in the United States at less than fair value (LTFV) and that an industry in the United States is materially injured, or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise. Accordingly, the Commission instituted these preliminary investigations under section 733 of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise into the United States. The statute directs that the Commission make its determination within 45 days after its receipt of a petition, or in this case, by May 2, 1983.

Notice of the institution of the Commission's investigations and of a conference to he held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register on March 30, 1983 (48 F.R. 13280). 1/ The conference was held in Washington, D.C., on April 11, 1983. 2/ The Commission vote on this case was made at its meeting on April 25, 1983.

Summary of Previous Investigations Involving the Subject Merchandise

On January 12, 1977, the Commission received advice from the Treasury Department that clear sheet glass from Romania was being, or was likely to be, sold in the United States at LTFV. After conducting an antidumping investigation, 3/ the Commission reported to the Secretary of the Treasury that a domestic industry was not injured or likely to be injured by imports of clear sheet glass from Romania in that case.

Prior to 1977, sheet glass had been under almost constant Commission review or investigation since May 1961, when the Commission made a unanimous affirmative determination under section 7 of the Trade Agreements Extension Act of 1951 and the President invoked escape-clause rates effective June 18, 1962.

1/ A copy of the Commission's notice of investigations is presented in app. A.

2/ A list of witnesses appearing at the Commission's conference is presented in app. B.

3/ Clear Sheet Glass from Romania: Determination of the Commission in Investigation No. AA1921-163, USITC Publication No. 811, April 1977.

During 1970-72 the Commission conducted an industry review investigation, a probable-economic-effects investigation, and the last full-scale escape-clause investigation under the TEA, an industry review report issued on February 26, 1973.

From 1962 to 1971 the Commission conducted eight antidumping investigations on sheet glass. These investigations, for the most part, involved sheet glass other than that which is the subject of these investigations. In 1962 and again in 1964 the Commission found no injury in antidumping cases involving sheet glass from Czechoslovakia. Also in 1964 the Commission found no injury from imports of sheet glass from the U.S.S.R. In 1971 the Commission found injury due to imports of clear, plate, float, and sheet glass from Japan and imports of sheet glass from Taiwan, France, Italy, and West Germany.

The Product

Description and uses

Sheet glass is a type of transparent flat glass with a smooth, fire-polished 1/ surface produced by various glass-drawing processes. The drawing method leaves faint ripples on the surface of the glass which to varying degrees distort objects either viewed through, or reflected in, the glass. This characteristic of sheet glass tends to exclude it from use when large pieces are required and an oblique angle of view is likely. 2/ Sheet glass dimensions vary in width from 60 to 120 inches and in thickness from approximately 0.026 inch to 7/16th inch. Less than 5 percent of all flat glass produced in the United States is sheet glass. Other types of flat glass include float glass and plate glass. Float glass is produced by floating molten glass over a bed of molten tin. Plate glass is manufactured principally by using the rolled glass process and grinding the surfaces of the glass to a very smooth, flat finish. Neither float glass or plate glass is included in this investigation.

In recent years, sheet glass and plate glass have been displaced by float glass in the principal markets, including the automobile and construction (both residential and commercial) industries. Sheet glass continues to be used in certain specialized markets, particularly those where the use of float glass would be impractical due to factors such as physical constraints on the manufacture of certain glass thicknesses and increased production costs associated with low-volume orders. 3/

The subject of these investigations is thin sheet glass, which is defined as ordinary (i.e., not colored or special) blown or drawn glass 4/ (whether or not containing wire netting), in rectangles; not ground, not polished, not

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1/ A fire polish or finish is the brilliant surface achieved by allowing the molten glass to cool to rigidity without coming in contact with anything solid.

2/ Glass: Its Industrial Applications, 1960, p. 31.

3/ Ceramic Industry, March 1983, p. 24; The Glass Industry, April 1980.

4/ Sheet glass is identified in the TSUS as "drawn or blown flat glass." All sheet glass today is drawn; blown sheet glass is now obsolete.

pressed or molded, and not otherwise processed; weighing over 4 ounces but not over 12 ounces per square foot. It is provided for in items 542.11 and 542.13 of the Tariff Schedules of the United States (TSUS). The subject thin sheet glass ranges from 0.026 inch to 0.065 inch (0.6 mm to 1.65 mm) in thickness. 1/

For the purposes of these investigations, such thin sheet glass (or microsheet) is further separated into two categories of quality: high and regular. High-quality thin sheet glass is suitable for use as, and meets the technical specifications 2/ for, photographic slides and optical-coating glass for instrumentation and other technical and scientific applications, including light-emitting diode (LED) and liquid crystal display (LCD) applications. Regular-quality thin sheet glass does not meet the technical specifications of the high-quality product; it is suitable for use in microscope slides and cosmetic mirrors. High-quality and regular-quality thin sheet glass are manufactured in the same production run from the same melting tank and are sorted after the drawing process. Because high-quality glass must meet more stringent standards of flatness, size of inclusions, cutting tolerance, and number of surface defects, its production requires additional inspection operations and certain technical measuring equipment to insure that the stipulated high-quality specifications are met. The sole U.S. producer of thin sheet glass (Jeannette) manufactures only regular-quality glass because it lacks such equipment.

The manufacture of glass is an energy-intensive operation. Sheet glass furnaces are normally fired by natural gas; however, oil may be used as a backup energy source.

The raw materials (batch) used to make sheet glass include silica sand, limestone, soda ash, dolomite, and small amounts of other materials. About * * * of the batch is in the form of cullet, or cleaned and crushed glass recovered from previous glassmaking operations. 3/ The raw materials are mixed according to a precise formula. The batch is fed into the melting tank (or furnace), where temperatures close to 3,000 degrees fahrenheit reduce

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1/ Currently, thin flat glass that conforms to the stipulated dimensions is manufactured almost exclusively by the sheet process. Although there have been a few small-volume production runs of thin glass manufactured by the float process (primarily on an experimental basis), certain technical adjustments to this process must be accomplished in order for it to become a viable method of thin glass production. See transcript of the public conference, pp. 92 and 133.

2/ The technical specifications include stringent standards regarding flatness, inclusions (e.g., opaque spots, knots, stones, closed blisters, and seeds), and cutting tolerance.

3/ The level of iron present in the batch of raw materials varies. A high iron content results in a greenish tint to the glass (this is not regarded as colored glass), which is especially visible when viewed from the side. A low iron content in the batch mixture produces a very clear, or "water white," glass. Industry sources have indicated that the iron content does not affect the functional performance of regular-quality thin sheet glass.

the material to molten glass. This aspect of the production process is known as the refining stage; it is at this point that the quality of the glass is largely determined. A typical sheet glass furnace has an average daily production capacity of 250 to 300 tons per day. 1/

There are currently four methods used to manufacture sheet glass: the Fourcault, Asahi, Colburn, and Pittsburgh processes. These methods differ principally in the system by which molten glass is drawn from the furnace and annealed. The Fourcault, Asahi, and Pittsburgh processes employ a vertical drawing method, and the Colburn process draws horizontally.

Jeannette uses the Fourcault method, in which the sheet of molten glass is drawn vertically upward. The sheet is started by contacting the hot glass with an iron "bait." Surface tension and viscosity compel the glass to follow the bait as it is withdrawn by the machine, thus forming a sheet of glass. The sheet is then drawn vertically through a slotted refractory shape called a debiteuse. The length of the slot in the debiteuse determines the sheet width. The sheet thickness is affected primarily by the width of the slot in the debiteuse and the speed of the draw: the faster the machine rate, the thinner the sheet. 2/

In the form of a continuous ribbon, the glass next passes through two sets of edge rolls that create a constant side pull in order to maintain uniform width. 3/ A series of asbestos-covered rollers, placed in pairs and enclosed to form an airtight annealing lehr, further guide the sheet of glass upward as it gradually cools to rigidity, ending the hot-end phase of production. It is important that the glass be cooled gradually in the annealing lehr in order to prevent flaw-causing stresses that fast cooling would cause. Production processes that feature a longer cooling period reportedly permit the manufacture of a thin sheet glass product that is less brittle and easier to cut. 4/

The hardened sheet of glass is visually inspected for flaws as it approaches the breakoff platform approximately 20 feet above the drawing pit. At the breakoff platform the glass ribbon is initially cut and then sent on for cold-end operations. During these operations the glass may be further cut (depending on the specifications of orders), at which time it is again inspected, and then readied for packing. Glass to be shipped is cushioned from breakage and protected from surface damage by dusting a powdery substance known as Lucor between individual pieces, or by placing a paper interleaf between each piece. The glass is then packed in boxes or pallets for shipment by truck, rail, or container ship (to overseas markets), or placed in the plant's storage area. Cold-end operations are more labor intensive than the hot-end phase of sheet glass production because of the increased amount of glass handling involved.

1/ Telephone conversation with an official of PPG Industries, Inc., on Apr. 8, 1983.

2/ See transcript of the public conference, p. 12.

3/ Handbook of Glass Manufacture, vol. II, 1960.

4/ Information from meeting with officials of Erie Scientific Co. on Apr. 11, 1983.

In the Fourcault method, the molten glass is not necessarily drawn directly from the melting tank. It may flow into as many as three "canals," each of which may accommodate up to three drawing machines. Consequently, up to nine machines may be operated simultaneously on a single tank. 1/ Total glass output is affected by the number of drawing machines in operation. Machine widths are normally 90 to 100 inches, but may range from 60 to 120 inches. 2/ Each drawing machine can produce a different glass thickness independent of that drawn by the other machines. According to a Jeannette official, thin, or microsheet, glass must be made on a 90-inch machine because microsheet is more likely to crack and break when manufactured on a 100-inch machine. 3/

Commercial glass-melting tanks operate 24 hours a day, every day of the year, for as long as 5 to 7 years, until they are shut down in order to replace the refractory bricks (known as cold-repair). Some repairs can be made while the furnace is on "hot hold," a situation in which the temperature of the tank is at a level that keeps the contained glass molten, but batch is withheld from the melting tank and no glass is drawn. Other tank repairs can be made with little or no interruption in the production process. The debiteuse used in the Fourcault method is a specially shaped refractory clay block that must be refired approximately every * * * hours because it is subject to corrosion and erosion. It has an operational lifetime of approximately * * * months. A minimum of * * * to * * * hours is required to replace the debiteuse and resume production; it is not necessary to shut down the furnace to accomplish this. 4/

Thin sheet glass has a number of specialized applications that govern the quality of the glass used. Regular-quality thin sheet glass is used principally in microscope slides, cosmetic mirrors, and lantern slides (slides for projection in a slide projector). High-quality thin sheet glass is used primarily for photographic slide glass for emulsion-coated plate and optical coating glass for instrumentation having LED and LCD applications, such as pen watches, clocks, and computer terminal displays.

U.S. tariff treatment

Imports of the thin sheet glass subject to these investigations are classified for tariff purposes under items 542.11 and 542.13 of the TSUS. The

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1/ Handbook of Glass Manufacture.

2/ Information from officials of Jeannette Sheet Glass Corp., as relayed by Mr. Eugene Stewart, counsel for Jeannette.

3/ See memorandum to the record on field trip to Jeannette Sheet Glass Corp.

4/ Information from officials of Jeannette Sheet Glass Corp., as relayed by Mr. James Cannon, counsel for Jeannette.

current column 1 (most-favored-nation) 1/ rates of duty and column 2 rates of duty 2/ as of January 1, 1983, are shown in the following tabulation.

TSUS item No.	Article	Col. 1	Col. 2
	Glass (whether or not containing wire netting), in rectangles, not ground, not polished and not otherwise processed, weighing over 4 oz. per sq. ft.:		
	Glass, including blown or drawn glass, but excluding pressed or molded glass:		
	Ordinary glass:		
	Weighing over 4 oz. but not over 12 oz. per sq. ft.:		
	Measuring not over 40 united		
542.11	inches 1/----------	0.7¢ per lb.	1.5¢ per lb.
	Measuring over		
542.13	40 united inches--------	0.9¢ per lb.	1.9¢ per lb.

1/ "United inches" refers to the sum in inches of the length and width of a rectangle of glass.

The column 1 rates of duty on thin sheet glass were not modified in the Tokyo round of Multilateral Trade Negotiations (MTN) held from 1973 to 1979 under the auspices of the General Agreement on Tariffs and Trade.

1/ The rates of duty in col. numbered 1 are most-favored-nation rates, and are applicable to imported products from all countries except those Communist countries and areas enumerated in general headnote 3(f) of the TSUS. However, such rates do not apply to products of developing countries which are granted preferential tariff treatment under the Generalized System of Preferences or under the "LDDC" rate of duty column.

2/ Col. 2 rates of duty apply to imported products from those Communist countries and areas enumerated in general headnote 3(f) of the TSUS.

Imports of the subject glass are not eligible for duty-free treatment under the General System of Preferences (GSP), 1/ nor have the least developed developing countries (LDDC's) been granted preferential rates of duty on this glass. 2/

Nature and Extent of Alleged Sales at LTFV

The petition alleges that thin sheet glass from Switzerland, Belgium, and West Germany is being sold in the United States at LTFV. The petition presents a comparison of the home-market prices in these countries with (1) the average unit value, f.o.b. origin, of imports as given by Commerce Department statistics, (2) the average unit value, f.o.b. origin, of exports to the United States as given by Swiss, Belgian, and West German export statistics and market research, (3) the prices of exports to the European Community (EC) and the cost of production, as developed by market research, and, in some cases, (4) the export prices to third countries. The alleged LTFV margins vary considerably depending on which method is used and upon what product mix the comparisons are based.

The alleged LTFV margins of imports from Switzerland vary considerably depending on the basis of comparison. Using Commerce's average unit values, f.o.b. origin, of U.S. imports included in TSUS items 542.11 and 542.13 and Swiss home-market prices for glass 0.92 mm to 1.05 mm and 1.20 mm to 1.32 mm in thickness, there were margins shown in every quarter of 1982, ranging from 6.1 percent to 51.4 percent.

The alleged LTFV margins of imports from Belgium for the four quarters of 1982 range from 6.19 percent to 26 percent when the average unit value of U.S. imports is compared with the Belgian home-market price. These margins are based on average unit values of all imports under TSUS items 542.11 and 542.13.

The alleged LTFV margins for imports from West Germany are considerably higher than for those from Switzerland or Belgium. Again, the margins vary depending on which method of comparison is used. On the basis of a comparison of Commerce's average unit values of U.S. imports in both TSUS items and home-market prices, the LTFV margins in the four quarters of 1982 ranged from 20.3 percent to 240.5 percent on glass with a thickness range of 0.6 mm to 1.5 mm.

U.S. Producer

Sheet glass is currently produced in the United States by one firm, Jeannette Sheet Glass Corp., operating one plant in Jeannette, Pa., utilizing

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1/ The GSP, under title V of the Trade Act of 1974, provides duty-free treatment for specified eligible articles imported directly from designated beneficiary developing countries. GSP, implemented by Executive Order No. 11888, of Nov. 24, 1975, applies to merchandise imported on or after Jan. 1, 1976, and is scheduled to remain in effect until Jan. 4, 1985.

2/ The preferential rates of duty in the "LDDC" column reflect the full U.S. MTN concession rates implemented without staging for particular items which are the products of LDDC's enumerated in general headnote 3(d) of the TSUS.

the Fourcault process. The plant has one furnace and nine drawing machines; three are designed to produce thin sheet glass and six, other sheet glass. Jeannette produces low-iron white sheet glass in various thicknesses for use in products ranging from windows to microscope slides.

The Jeannette plant was formerly owned by ASG Industries, Inc., and was shut down in November 1978. A group of former employees purchased the plant under a financial plan wherein each employee was committed to buying 20 shares of company stock at $100 each. The balance of the funding was provided by Federal, State, and private lending institutions, including the Pennsylvania Industrial Development Authority and the Federal Economic Development Administration. 1/ There is no union at the plant; the employees are the sole owners of the company.

In December 1979 renovation was started in the plant, and the furnace was completely rebuilt. Production was resumed when the first glass was drawn on March 17, 1980. 2/ Since that time the furnace has run continuously. 3/ There have been * * * separate time periods since the startup of production when only * * * drawing machines were running: * * *. An official of Jeannette stated that these periods of reduced output were due to a low level of orders combined with excess inventory.

Jeannette's melting tank is * * * feet long and ranges in depth from * * * inches (at the drawing point) to * * * inches. The system has the capacity to draw as much as * * * tons of glass per day, although the daily glass output is approximately * * * tons. 4/

The thin sheet glass produced by Jeannette is consumed in the regular-quality glass market as opposed to the high-quality market. Although the two different qualities of glass are produced from the same tanks by the identical drawing process, Jeannette does not have the technical equipment necessary to distinguish high-quality from regular-quality glass. Jeannette's thin sheet glass production is separated into two principal categories, by thicknesses, as follows: 5/

Type	Average thickness in inches	Average thickness in millimeters
Lantern slide---------	0.048	1.22
Standard micro--------	0.039	1.00

One other U.S. firm, West Virginia Flat Glass, was engaged in the production of sheet glass during 1980-82, from June 1980 to October 1981. 6/

1/ American Glass Review, November 1979.
2/ Ibid., July 1980.
3/ See memorandum to the record on field trip to Jeannette Sheet Glass Corp.
4/ See memorandum to the record on field trip to Jeannette Sheet Glass Corp.
5/ Information from factory data sheet for tolerances of glass thickness provided by Jeannette Sheet Glass Corp.
6/ Telephone conversation with an official of West Virginia Flat Glass on Mar. 28, 1983.

This firm's plant is located in Clarksburg, W. Va. It was purchased by Asahi Glass Co., Ltd., of Tokyo, Japan, in 1979 from Hordis Glass Co. Production equipment, which was renovated following the Asahi purchase, consisted of one furnace and six drawing machines using the Asahi drawing process. The major difference between this manufacturing method and the Fourcault process used by Jeannette is that the Asahi process does not use a debiteuse. West Virginia Flat Glass reportedly did not produce the subject thin sheet glass, instead manufacturing a thicker glass for end uses such as pictures, windows, and greenhouses. 1/

U.S. Importers

There were four U.S. firms actively involved in importing thin sheet glass from Belgium, Switzerland, and West Germany during the period under consideration.

DeGorter & Co., Long Island, N.Y., is a sales agent for the Belgium firm Glaverbel. Crystal International Corp., New York, N.Y., is wholly owned by the West German firm Flachglas, for which it is a selling agent. 2/ Crystal's operation involves two subagents, who market the glass on a regional basis in the Southern and Western United States. The firm imports both high- and regular-quality thin sheet glass from Flachglas. Crystal maintains no U.S inventories of thin sheet glass; a certain level of inventory is maintained in West Germany, but the factory usually fills orders from current production. 3/ Crystal also acts as an independent agent for imports of Belgian thin sheet glass.

A third firm, Erie Scientific Corp., a division of Sybron Corp., is a U.S. producer of microscope slides. As of January 1, 1983, Sybron Corp. acquired the Swiss producer of white thin sheet glass, Erie-Electroverre. Prior to January 1, 1983, Erie Scientific bought glass from Electroverre and resold some of it to U.S. customers. For some customers, Erie Scientific cuts the glass into specified sizes before packing and shipping it. It does this as an independent seller, not as an agent. 4/ The rest of Erie Scientific's imports from Electroverre are consumed in-house. Erie Scientific also purchases thin sheet glass from Glaverbel. These purchases consist of green (high iron content) glass, as distinguished from the white glass produced by Electroverre. 5/

Prior to Electroverre's acquisition by the Sybron Corp., Interglass Corp. was its U.S. sales representative. Interglass secured orders for the Swiss manufacturer and in turn received a commission. It also handled the paperwork associated with these transactions. Its sales representation contract was cancelled by Electroverre as of November 1, 1982. 6/

1/ Telephone conversation with an official of West Virginia Flat Glass on Apr. 8, 1983.
2/ See transcript of the public conference, p. 82.
3/ Ibid., p. 83.
4/ Ibid., pp. 129-130.
5/ Ibid., p. 126.
6/ See letter from Interglass Corp. dated Mar. 28, 1983, received in response to the Commission's questionnaire.

U.S. Market and Channels of Distribution

The principal consumers of regular-quality thin sheet glass are manufacturers of microscope slides, lantern slides, and cosmetic mirrors. Demand for items such as cosmetic mirrors is subject to fluctuations in the level of consumer spending; the market for microscope slides is somewhat insulated from economic vacillations because the need for hospital services and medical and scientific testing continues throughout periods of reduced economic activity.

High-quality thin sheet glass is consumed primarily by producers of photographic slide glass and glass for optical coating applications (including LED and LCD applications). High-quality thin sheet glass accounts for approximately 5 million square feet of the total of 30 million square feet of thin sheet glass sold each year. 1/

Buyers of thin sheet glass base their purchase decisions on price, quality, and service. The important aspects of glass quality include such characteristics as the flatness and clearness of the glass, its freedom from distortion, the ease with which it can be cut, and the number of surface defects it contains. Purchasers of thin sheet glass require a quality product in order to maximize the yield and reduce the amount of waste associated with the manufacture of the various end products. Service includes assured supply, prompt delivery, handling of complaints, and technical support.

The main channel through which domestically produced thin sheet glass is distributed is through an independent glass distributor, which supplies glass processors, fabricators, and manufacturers of microscope slides and cosmetic mirrors.

U.S. producers of microscope slides generally sell their product to large medical supply wholesale houses, which in turn sell to hospitals, doctors, and laboratories through catalogs. Jeannette does not market any of its sheet glass output. 2/ The firm has a long-term contract with General Glass International Corp. (GGI), of New Rochelle, N.Y., which markets all Jeannette's glass. At the time that Jeannette began production in March 1980, the agreement called for GGI to market 85 percent of the plant's output. The remaining 15 percent consisted of thin (microsheet) glass, which was to be marketed by Jeannette. 3/ This arrangement was not viable, and in September 1980 officials at Jeannette contracted with GGI to market 100 percent of its production. 4/ GGI, which ships glass both domestically and overseas, obtains the orders and forwards them to Jeannette, which adjusts production accordingly, or fills the order from existing GGI inventory maintained at Jeannette. 5/ In addition to marketing Jeannette's output, GGI sells other

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1/ See brief in support of the testimony of Jeannette Sheet Glass Corp. at the public conference, Apr. 11, 1983, p. 51.

2/ See transcript of the public conference, p. 30.

3/ American Glass Review, November 1979; The Glass Industry, April 1980.

4/ See transcript of the public conference, p. 30.

5/ See report to the record on field trip to Jeannette Sheet Glass Corp.

domestically produced and imported flat glass products (e.g., float glass, rolled glass, and mirrors). The only thin sheet glass it sells is that produced by Jeannette.

The normal length of time required by Jeannette to fill an order for sheet glass is approximately 3 weeks, spanning the time from when an order is placed to the time it is ready for delivery. However, it is possible for Jeannette to supply a relatively small-volume order in 2 to 4 days by dedicating a drawing machine to that specific order. 1/

The main channels through which imported thin sheet glass is distributed are as follows: 2/

1. Directly from foreign producers to manufacturers, fabricators, and processors;

2. Through agents, which are primarily responsible for handling the paperwork necessary to bring the glass into the United States, and which forward the glass to manufacturers and processors; and

3. Through glass distributors that serve the processors and fabricators of thin sheet glass.

Consideration of Material Injury to an Industry in the United States

U.S. production, capacity, and capacity utilization

Jeannette Sheet Glass Corp. was incorporated on June 7, 1979, and began producing sheet glass on March 17, 1980. The plant has a practical capacity to produce regular-quality thin sheet glass of * * * million pounds per year (table 1). This capacity is based on operating the firm's facilities 168 hours per week, 52 weeks per year.

1/ Ibid.

2/ Further discussion of the relationship between foreign producers and their U.S. distributors is presented in the section of the report on U.S. importers.

Table 1.--Regular-quality thin sheet glass: U.S. production, practical capacity, 1/ and capacity utilization, 1980-82

Item	1980	1981	1982
Production----------1,000 pounds--	***	***	***
Capacity 2/----------do----	***	***	***
Capacity utilization----------percent--	***	***	***

1/ Practical capacity was defined as the greatest level of output a plant can achieve within the framework of a realistic work pattern. Producers were asked to consider, among other factors, a normal product mix and expansion of opertions that could be reasonably attained in their industry and locality in setting capacity in terms of the number of shifts and hours of plant operation.

2/ Capacity is overstated to the extent that it is based on equipment which can and is used to produce other thicknesses of sheet glass.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Jeannette produced * * * million pounds of regular-quality thin sheet glass in 1980. Production increased to * * * million pounds in 1981, but then dropped * * * to * * * million pounds in 1982, representing a decline from 1981 to 1982 of * * * million pounds or * * * percent.

Capacity utilization for the firm was * * * percent in 1980 and * * * percent in 1981. However, due, to the decline in production in 1982, capacity utilization dropped by * * *, to * * * percent, in that year.

U.S. producer's shipments

As mentioned, when Jeannette began production of sheet glass, it entered into a long-term agreement with GGI to have that company operate as its marketing agent. Initially, GGI was to market approximately 85 percent of its firm's production. By the end of 1980, however, it was handling all sales for Jeannette. Under this arrangement, * * *. The quantity and value of Jeannette's shipments of regular-quality thin sheet glass to GGI are shown in table 2. As indicated, Jeannette's shipments and production (table 1) are equal. The unit value of its shipments increased irregularly from * * * cents per pound in 1980 to * * * cents per pound in 1982.

Table 2.--Regular-quality thin sheet glass: U.S. producer's shipments, 1980-82

Item	1980	1981	1982
Quantity----------1,000 pounds--	***	***	***
Value----------1,000 dollars--	***	***	***
Unit value----------per pound--	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 3 presents the quantity and value of GGI's shipments of Jeannette's thin sheet glass. * * *.

Table 3.--Regular-quality thin sheet glass: Shipments by GGI 1980-82

Item	1980	1981	1982
	Quantity (1,000 pounds)		
Domestic shipments	***	***	***
Export shipments	***	***	***
Total	***	***	***
	Value (1,000 dollars)		
Domestic shipments	***	***	***
Export shipments	***	***	***
Total	***	***	***
	Unit value (per pound)		
Domestic shipments	***	***	***
Export shipments	***	***	***
Average	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

* * * * * * *

U.S. producer's inventories

Because Jeannette sells 100 percent of its thin sheet glass to GGI immediately after production, it reported no inventories. However, GGI, reported end-of-period inventories as shown in the following tabulation:

Year	End-of-period inventories (1,000 pounds)	Ratio of inventories to shipments 1/ (percent)
1980----------	***	2/ ***
1981----------	***	***
1982----------	***	***

1/ Shipments to GGI from Jeannette.
2/ Based on annualized shipments.

* * * * * * *

U.S. employment, wages, and productivity

When Jeannette began production in 1980, it had a total employment of * * * persons. Employment increased slightly to * * * in 1981, but then declined to * * * in 1982 (table 4). Although overall employment remained fairly steady during the period, the number of production and related workers allocated to the production of thin sheet glass * * * .

Jeannette has nine drawing machines which operate from its melting tank. Since it opened in March 1980, there have been * * * time periods when Jeannette was forced to lay off employees and shut down * * * of the nine machines--* * *.

Although the hours worked by production and related workers producing all sheet glass products remained fairly steady throughout 1980-82 (annualized 1980 hours equal approximately * * *), the number of hours worked by workers producing regular-thin sheet glass followed a different trend. In 1980, the annualized number of hours worked was approximately * * *. * * *.

Table 4.--Average number of employees, total and production and related workers, in the U.S. establishment producing thin sheet glass, and hours worked by the latter, 1980-82

Item	1980	1981	1982
Average number of employees:			
All persons	***	***	***
Production and related workers producing--			
All sheet glass	***	***	***
Thin sheet glass	***	***	***
Hours worked by production and related workers producing--			
All sheet glass----------1,000 hours--	***	***	***
Thin sheet glass----------do----	***	***	***
Labor productivity:			
Thin sheet glass----------pounds per hour--	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The productivity of the production and related workers producing thin sheet glass, as measured by output per hour, * * *.

Wages and total compensation paid to production and related workers are presented in table 5. Jeannette is an employee-owned corporation. Therefore, employees are not represented by a union; instead, there is an committee which includes employees from every area of the firm. Decisions as to wages and lay-offs are handled through this committee. When the firm went into production in 1980, employees agreed to go back to work * * *. Since that time there has been an * * * percent pay raise, granted in April 1981. The average hourly wages presented in table 5 reflect a relatively static wage situation and, in fact, reflect a slight decline from 1980 through 1982. Unit labor costs * * *.

Table 5.--Wages and total compensation paid to production and related workers in the U.S. establishment producing thin sheet glass, 1980-82

Item	1980	1981	1982
Wages paid to production and related workers producing--			
All sheet glass----------1,000 dollars--	***	***	***
Thin sheet glass----------do----	***	***	***
Total compensation paid to production and related workers producing--			
All sheet glass----------1,000 dollars--	***	***	***
Thin sheet glass----------do----	***	***	***
Hourly compensation 1/ paid to production and related workers producing--			
All sheet glass----------per hour--	***	***	***
Thin sheet glass----------do----	***	***	***
Unit labor costs for thin sheet glass per pound--	***	***	***

1/ Based on wages paid excluding fringe benefits.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Financial experience of the U.S. producer

Overall operations of the establishment within which thin sheet glass is produced.--Jeannette is the only sheet glass producer still in operation in the United States. It reported income-and-loss information on the overall operations of the establishment in which thin sheet glass is produced as well as on thin sheet glass alone. Net sales for the overall operation were * * * for March-December 1980, the firm's first year of operation. Total net sales were * * * in 1981 and * * * in 1982 (table 6).

Table 6.--Income-and-loss experience of Jeannette Sheet Glass Corp. on the overall operation of its establishment within which thin sheet glass is produced, 1980-82

Item	1980 1/	1981	1982
Net sales----------1,000 dollars--	***	***	***
Cost of goods sold----------do----	***	***	***
Gross income or (loss)----------do----	***	***	***
General, selling, and administrative expenses----------do----	***	***	***
Operating income or (loss)----------do----	***	***	***
Other expenses----------do----	***	***	***
Net income or (loss) before taxes------do----	***	***	
Depreciation and amortization----------do----	***	***	***
Cash flow from operations----------do----	***	***	***
Ratio to net sales:			
Gross income or (loss)----------percent--	***	***	***
Operating income or (loss)----------do----	***	***	***
Net income or (loss) before taxes----do----	***	***	***
Cost of goods sold----------do----	***	***	***
General, selling, and administrative expenses----------percent--	***	***	***

1/ March-December.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Cost of goods sold as a percentage of net sales * * * from * * * percent in 1980 to * * * percent in 1981, and then * * * to * * * percent in 1982. General, selling, and administrative expenses * * * steadily from * * * percent of net sales in 1980 to * * * percent in 1982.

* * * * * * *

* * * * * * *

Operations on regular-quality thin sheet glass.--Jeannette reported net sales of thin sheet glass of * * * in 1980, * * * in 1981, and * * * in 1982 (table 7). As a share of overall establishment net sales, net sales of thin sheet glass * * * annually from * * * percent in 1980 to * * * percent in 1981 and * * * percent in 1982.

Table 7.--Income-and-loss experience of Jeannette Sheet Glass Corp. on its thin sheet glass operations, 1980-82

Item	1980 1/	1981	1982
Net sales----------1,000 dollars--	***	***	***
Cost of goods sold----------do----	***	***	***
Gross income or (loss)----------do----	***	***	***
General, selling, and administrative expenses----------do----	***	***	***
Operating income or (loss)----------do----	***	***	***
Other expense----------do----	***	***	***
Net income or (loss) before taxes------do----	***	***	***
Depreciation and amortization----------do----	***	***	***
Cash flow from operations----------do----	***	***	***
Ratio to net sales:			
Gross income or (loss)----------percent--	***	***	***
Operating income or (loss)----------do----	***	***	***
Net income or (loss) before taxes----do----	***	***	***
Cost of goods sold----------do----	***	***	***
General, selling, and administrative expenses----------do----	***	***	***

1/ March-December

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

In its questionnaire response, Jeannette allocated thin sheet glass costs for 1980 and 1981 using a full-absorption method based upon units of production. Thin sheet glass accounted for * * * and * * * percent of production in 1980 and 1981, respectively. In 1982, thin sheet glass accounted for * * * percent of production, and all costs were allocated on the basis of this percentage except for "other factory costs," which were allocated on the basis of a factor of * * * percent. The explanation for this change in allocation methodology in 1982 was provided by the petitioner in its revised preconference brief filed with the Commission on April 11, 1983, and is as follows:

> Jeannette's 1979 accounting study projected that thin sheet glass sales would account for * * * percent of total sales. Jeannette's practical capacity to produce thin sheet glass accounts for over * * * percent of its productive capacity. Jeannette believes that allocation of other factory costs on the basis of a 1982 production prorate is unrealistic because disproportionately it was the capacity (and hence factory burden) intended for use in the production of thin sheet glass which was unused in 1982 due to the sharp decline in sales of thin sheet glass, due in large part to the impact of the LTFV imports on volume of sales and sales prices; therefore, the Vice President - Finance of the company believes it is in accordance with acceptable allocation procedures, and consistent with the realities of the use and non-use

of the capital investment, to recognize the disproportionately heavy impact of the sharp decline in orders for and production of thin sheet glass to average the 1981 prorate of thin to total sheet glass production with the 1982 prorate as a means of showing the factory burden which was unabsorbed due to the loss of sales caused by the LTFV imports. Thus, the "other factory costs" on line 4 of page 16 (of the questionnaire) has been derived by applying a prorate of thin sheet glass volume to total sheet glass volume for 1981 and 1982 divided by 2, thus: * * *.

For consistency, the data presented in table 7 for Jeannette's operations in 1982 reflect cost allocations based on the actual * * * percent factor, rather than the 1981-82 average of * * * percent. On that basis, * * *.

Using the 1981-82 average allocation factor of * * * percent, Jeannette's financial experience in 1982 would be as follows:

Item	1982
Net sales----------1,000 dollars--	***
Cost of goods sold----------do----	***
Gross income or (loss)---------do----	***
General, selling, and--	
Administrative expenses------do----	***
Operating income or (loss)-----do----	***
Other expense----------do----	***
Net income or (loss) before taxes do----	***
Depreciation and amortization--do----	***
Cash flow from operations------do----	***
Ratio to net sales:	
Gross income or (loss)----percent--	***
Operating income or (loss)---do----	***
Net income or (loss) or before taxes do----	***
Cost of goods sold--------percent--	***
General, selling, and administrative expense-------percent--	***

On this basis, Jeannette * * *.

Capital expenditures.--Jeannette provided information relative to its expenditures during 1980-82 for land, buildings, and machinery and equipment used in the manufacture of all sheet glass products as well as those for thin sheet glass alone. These expenditures are shown in the following tabulation:

	Capital expenditures on all products (1,000 dollars)	Capital expenditures on thin sheet glass (1,000 dollars)
1980----------	***	***
1981----------	***	***
1982----------	***	***

Jeannette reported * * * research and development expenses. Jeannette attributes * * * .

Consideration of Threat of Material Injury to an Industry in the United States

In its examination of the question of the threat of material injury to an industry in the United States, the Commission may take into consideration such factors as the rate of increase in alleged LTFV imports, the rate of increase in U.S. market penetration by such imports, the amounts of imports held in inventory in the United States, and the capacity of foreign producers to generate exports (including the availability of export markets other than the United States). A discussion of the rate of increase in imports of thin sheet glass and of market penetration is presented in the section of this report on the consideration of the causal relationship between alleged material injury or the threat thereof and imports allegedly sold at LTFV.

Importers' inventories

Most of the imports of thin sheet glass are shipped directly to end users. Therefore, the importers that act as agents for the foreign producers reported no inventories. * * *

Country of origin	1980	1981	1982
Switzerland----------	***	***	***
Belgium----------	***	***	***
West Germany----------	***	***	***
Total----------	***	***	***

The foreign industries

Sheet glass is manufactured in a number of countries for both domestic and foreign consumption. Producers are located in Eastern and Western Europe,

the Far East, Latin America, Southeast Asia, and elsewhere. 1/ The number of facilities producing sheet glass worldwide has dropped over the past several years, principally as a result of competition from float glass. Many sheet glass operations have either been shut down completely or converted to the more modern float production process. The remaining sheet glass facilities employ various methods of production (Fourcault, Colburn, and Asahi). The foreign producers of the thin sheet glass which is the subject of these investigations are located in Belgium, Switzerland, and West Germany.

The Belgian industry.--Glaverbel, S.A., which is owned principally by Asahi Glass Co., Ltd., of Japan, operates one sheet glass plant in Belgium, which produces thin as well as other sheet glass. Glass is manufactured by the Colburn process, which employs a horizontal drawing operation. Its melting tank has the capacity to produce * * * tons of glass per day. During 1980, 1981, and 1982, * * * percent of the facility's capacity was used. During that period, the United States was a principal export market for Belgian thin sheet glass, accounting for * * * percent of the quantity exported in 1980, * * * percent in 1981, and * * * percent in 1982. The quantity of exports of thin glass from Belgium to the United States fell by * * * percent in 1981 and then rose by * * * percent in 1982. 2/ Glaverbel reportedly exports both regular-quality and high-quality thin sheet glass to the United States. 3/ Other export markets for Belgian thin sheet glass include * * *, the * * *, and * * *. Glaverbel does not foresee any significant changes in either its production of thin sheet glass or its exports to the United States during 1983. 4/

The Swiss industry.--The sole sheet-glass-manufacturing plant of Switzerland is Erie-Electroverre, formerly Electroverre Romont, S.A., of Romont, Switzerland. This firm is wholly owned by Sybron Corp. in Portsmouth, N.H., which acquired the Swiss facility on January 1, 1983. Erie-Electroverre operates a relatively small sheet glass furnace that has the capacity to produce * * * tons of glass daily. The Fourcault manufacturing process is used, and the system has two drawing machines. From July to September 1982 the plant was shut down for cold repair. Approximately * * * percent of Electroverre's capacity is devoted to the production of thin sheet glass, and of this output, an estimated * * * percent is destined for the U.S. thin sheet glass market. The Swiss thin sheet glass marketed in the United States is a low-iron white glass of regular quality. 5/

The West German industry.--Flachglas, A.G., which was acquired in 1980 by Pilkington Brothers, Ltd., of the United Kingdom, operates one sheet glass plant in Witten. Until February 1981, the tank at this plant had the capacity to produce about * * * tons of glass per day. At that time the plant was

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1/ The Glass Industry, April 1980.
2/ See response by Glaverbel, S.A., to a questionnaire of the U.S. International Trade Commission dated Apr. 12, 1983.
3/ See transcript of the public conference, p. 44.
4/ See Glaverbel's response to the Commission's questionnaire.
5/ See transcript of the public conference, p. 44.

temporarily closed * * * while the tank was rebuilt. The new tank is designed to produce thin sheet glass and has a production capacity of about * * * tons per day. Production is based on the Fourcault manufacturing process, and the system has * * * drawing machines. 1/

Consideration of Material Retardation of the Establishment of an Industry in the United States

The petitioner or alleges that imports of high-quality thin sheet glass from Belgium and West Germany are materially retarding the establishment of an industry in the United States. As previously stated in this report, Jeannette, the sole domestic producer of thin sheet glass in the United States, does not produce glass of high quality for commercial sale at this time. It has provided the Commission with information on what would be required for it to enter the high quality glass market.

Jeannette maintains that the production of high-quality thin sheet differs from that of regular-quality glass primarily in the sorting of the glass produced. The high- and regular-quality thin sheet are drawn from the same tank of molten raw material. The ability to produce the high-quality glass depends on the post-drawing step of sorting the high-quality glass from the regular-quality glass with the aid of sophisticated testing equipment to determine if the glass meets the necessary flatness, inclusion, and dimensional tests. Jeannette has estimated that such equipment would cost approximately $250,000 and could be installed and operational within a short period of time. Use of this equipment would give Jeanette access to approximately 90 percent of the high-quality thin sheet glass market.

Jeannette has also attempted to enter the high-quality thin sheet glass market by contacting purchasers and sending them samples of its glass for testing.

Jeannette presently has * * * drawing machines which it can use to produce thin sheet glass between 0.91 mm and 1.65 mm in thickness. It has indicated that the addition of a smaller tank would allow it to supply segments of the high-quality sheet glass market using other thicknesses. However, Jeannette was unable to provide estimates of the cost for purchasing this smaller tank or the amount of time required to make it operational; it did indicate that the cost of equipping Jeannette with a smaller tank would be substantial.

Jeannette has recently obtained a computer system which will monitor the temperature, natural gas usage rate, oxygen and gas mixture, and other inputs in its production process. This system will be operating in May 1983 and is intended to reduce energy costs as well as provide consistently better quality glass, which would improve the yield of high-quality glass.

Testimony by foreign producers of high-quality thin sheet glass and by purchasers of this product at the staff conference presented a different view with respect to what is required for a firm to become a producer of

1/ Telephone conversation with Mr. Von Roemer, president of Crystal International Corp. on Apr. 14, 1983.

high-quality thin sheet glass. They indicated that the quality necessary for high-quality glass is built into the production process, beginning with the raw materials used and continuing through the drawing process itself. They also testified that developing high-quality thin sheet glass which meets individual customer requirements takes place over a long period of time. 1/

Consideration of the Causal Relationship Between Alleged Material Injury or the Threat Thereof and Imports Allegedly Sold at LTFV

U.S. imports

The imports which are alleged to be sold at LTFV in the United States are being imported under two TSUS items--542.11 and 542.13. These products are basically thin sheet glass weighing between 4 and 12 ounces per square foot. The two TSUS categories essentially break this product up between glass under 40 united inches (542.11) and glass over 40 united inches (542.13). This distinction refers only to the size of the sheet being imported and not to any differences in thickness or end-use characteristics. The petitioner asserts that within this product category there are, in fact, two distinct types of thin sheet glass being imported--that which has been designated as high quality, for use in very technical, specialized applications, and that which is regular quality, which is essentially all other glass of 4 to 12 ounces per square foot. The distinction between the two types of glass is necessary because the petitioner does not at this time produce high-quality thin glass in commercial quantities. When available, information on high-quality glass and regular-quality glass will be presented separately.

Imports from all sources.--Imports of thin sheet glass from all sources fell from 13.6 million pounds in 1980 to 11.8 million pounds in 1981, representing a decline of 1.9 million pounds or 13.7 percent. They then increased by 1.2 million pounds, or 9.8 percent, to 12.9 million pounds in 1982 (table 8). The value of these imports increased from $6.1 million in 1980 to $6.2 million in 1981 and then declined to $6.0 million in 1982. The unit value increased from 44 cents per pound in 1980 to 52 cents per pound in 1981 and then declined to 46 cents per pound in 1982. Imports from Switzerland, Belgium, and West Germany accounted for 99 percent of imports from all sources during the period.

Imports from Switzerland--Imports of thin sheet glass from Switzerland declined steadily from 1980 to 1982. There were 5.0 million pounds of thin sheet glass imported from Switzerland in 1980, 4.8 million pounds in 1981, and 4.4 million pounds in 1982, representing a decline of 11.8 percent from 1980 to 1982. Unit values of these imports remained relatively constant, declining from 30 cents per pound in 1980 to 28 cents per pound in 1981 and then increasing to 29 cents per pound in 1982. Imports from Switzerland accounted for 37 percent of total imports of thin sheet glass in 1980, 41 percent in 1981, and 34 percent in 1982.

1/ See transcript of the public conference, p. 148.

Table 8.--Thin sheet glass: U.S. imports for consumption, by principal sources, 1980-82

Source	1980	1981	1982
	Quantity (1,000 pounds)		
Belgium/Luxembourg 1/	6,991	5,440	6,138
Switzerland	4,994	4,831	4,404
West Germany	1,508	1,405	2,229
Subtotal	13,493	11,676	12,770
Total	13,650	11,781	12,931
	Value (1,000 dollars)		
Belgium/Luxembourg 1/	3,097	3,409	2,761
Swizterland	1,491	1,332	1,259
West Germany	1,356	1,339	1,788
Subtotal	5,945	6,080	5,808
Total	6,055	6,170	5,964
	Unit values (per pound)		
Belgium/Luxembourg 1/	$0.443	$0.627	$0.450
Swizterland	.299	.276	.286
West Germany	.899	.953	.802
Average, 3 countries	.441	.521	.455
Average	.444	.524	.461
	Percent of total quantity		
Belgium/Luxembourg 1/	51	46	47
Switzerland	37	41	34
West Germany	11	12	17
Subtotal	99	99	99
Total	100	100	100

1/ There is no known production of thin sheet glass in Luxembourg.

Source: Compiled from official statistics of the U.S. Department of Commerce.

The * * * importer of the thin sheet glass from Switzerland is Erie Scientic, Portsmouth, N.H. This firm is a subsidiary of Sybron Corp., which as of January 1, 1983, purchased the manufacturing assets of Electroverre Romont, S.A., of Romont, Switzerland. This firm's questionnaire response indicates that it was responsible for approximately * * * percent of imports from Switzerland in 1980, * * * percent in 1981, and * * * percent in 1982. The firm's purchases were all of regular-quality thin sheet glass. There are no known imports of high-quality thin sheet glass from Switzerland.

Imports from Belgium.--Imports of thin sheet glass from Belgium accounted for 51 percent of total thin sheet glass imports in 1980, 46 percent in 1981, and 47 percent in 1982. Such imports declined from 7.0 million pounds in 1980 to 5.4 million pounds in 1981, representing a drop of 1.6 million pounds or 22 percent. They increased by 698,000 pounds to 6.1 million pounds in 1982, or by 12.8 percent over the 1981 level. The value of these imports followed a different trend, increasing from 1980 to 1981 and then declining in 1982. Unit values of these imports increased sharply from 44 cents per pounds in 1980 to 63 cents per pound in 1981 and then declined to 45 cents per pound in 1982.

Imports of thin sheet glass from Belgium are of both high and regular quality. Thus, unit values of imports from Belgium are, on the average, higher than those from Switzerland. This product mix also accounts, to some degree, for the greater fluctuations in unit values.

The largest importer of thin sheet glass from Belgium is * * *. * * *. The Belgian thin sheet glass has a higher iron oxide (green glass) content and consequently is not as "white" as the glass produced in Switzerland and in the United States. * * *.

On the basis of questionnaire responses, it is estimated that high-quality glass accounted for * * * percent of imports from Belgium in 1980, * * * percent of such imports in 1981, and * * * percent in 1982.

Imports from West Germany.--Imports from West Germany accounted for 11 percent of total imports of thin sheet glass in 1980, 12 percent in 1981, and 17 percent in 1982. Imports from West Germany declined from 1.5 million pounds in 1980 to 1.4 million pounds in 1981, representing a decline of 103,000 pounds or 6.8 percent. In 1982, imports from West Germany rose to 2.2 million pounds, representing an increase of 824,000 pounds or 59 percent. The value of these shipments remained fairly stable from 1980 to 1981, but increased significantly in 1982. The unit values of imports from West Germany were substantially higher than those of imports from Switzerland or Belgium. The average unit value of imports from West Germany was 89 cents per pound in 1980, 95 cents per pound in 1981, but only 80 cents per pound in 1982.

The higher average unit values of the glass imported from West Germany are due to the higher percentage of high-quality thin sheet glass being imported from that country. Information provided by the exclusive agent for the West German glass in the United States indicates that high-quality glass accounts for approximately * * * percent of the glass imported from West Germany in 1980, * * * percent in 1981, and * * * percent in 1982.

U.S. consumption

Total U.S. consumption of thin sheet glass declined steadily from * * * million pounds in 1980 to * * * million pounds in 1982, representing a drop of * * * million pounds or * * * percent (table 9). The decline was accounted for by a decline in consumption of regular-quality thin sheet glass, which accounted for approximately * * * percent of total consumption.

Table 9.--Thin sheet glass: U.S. producer's domestic shipments, imports for consumption, and apparent U.S. consumption, by types 1980-82

(In thousands of pounds)

Year	U.S. producer's shipments	Imports			Consumption		
		High-quality	Regular-quality	Total	High-quality	Regular-quality	Total
1980	***	***	***	13,650	***	***	***
1981	***	***	***	11,781	***	***	***
1982	***	***	***	12,931	***	***	***

Source: U.S. producer's domestic shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; imports, compiled from official statistics of the U.S. Department of Commerce and from data submitted in response to importers' questionnaires.

Consumption of regular-quality thin sheet glass declined from * * * million pounds in 1980 to * * * million pounds in 1981 and to * * * million pounds in 1982, or by * * * percent over the period.

Consumption of high-quality thin sheet glass increased from * * * pounds in 1980 to * * * pounds in 1981 and to * * * million pounds in 1982, representing an increase of * * * pounds or * * * percent.

U.S. market penetration

Imports from all countries increased their share of total U.S. consumption of thin sheet glass from * * * percent in 1980 to * * * percent in 1982 (after declining to * * * percent in 1981). Imports from Switzerland remained fairly stable, declining slightly from * * * percent of consumption in 1980 to * * * percent in 1982. Imports from Belgium, which had the largest share of the market, lost market share as well, dropping irregularly from * * * percent of consumption in 1980 to * * * percent in 1982. Imports from West Germany, which accounted for * * * percent of domestic consumption in 1980, increased their share of the market to * * * percent in 1982 (table 10).

Table 10--Thin sheet glass: Ratios of imports to consumption, by sources and by types, 1980-82

(In percent)

Type and country	1980	1981	1982
High-quality thin sheet glass:			
Switzerland	***	***	***
Belgium	***	***	***
West Germany	***	***	***
Subtotal 1/	100.0	100.0	100.0
Regular-quality thin sheet glass:			
Switzerland	***	***	***
Belgium	***	***	***
West Germany	***	***	***
Subtotal 1/	***	***	***
All thin sheet glass:			
Switzerland	***	***	***
Belgium	***	***	***
West Germany	***	***	***
Subtotal 1/	***	***	***
Other countries	***	***	***
Total 1/	***	***	***

1/ Due to rounding figures may not add to totals shown.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The ratio of imports to consumption for imports of regular-quality thin sheet glass from Switzerland, Belgium, and West Germany combined rose from * * * percent in 1980 to * * * percent in 1982. The share of imports of the regular-quality glass from Switzerland declined slightly, from * * * percent of consumption in 1980 to * * * percent in 1981 and * * * percent in 1982. That of imports of regular-quality thin sheet glass from Belgium as a percent of regular-quality glass consumption declined from * * * percent in 1980 to * * * percent in 1981, but then increased to * * * percent in 1982 and that of imports of regular-quality glass from West Germany as a percent of consumption declined from * * * percent in 1980 to * * * percent in 1981 and then increased to * * * percent in 1982.

There is no domestic production of high-quality thin sheet glass; most of the high-quality thin sheet glass imported into the United States comes from West Germany, which accounted for * * * percent of consumption of this product in 1982. The remainder is from Belgium (table 10).

Prices

Industry sources 1/ estimate that about 75 percent of the thin sheet glass consumed in the United States is sold for use in medical and health fields, with the remaining 25 percent used in the manufacture of mirrors and industrial applications. According to conference testimony, the medical/health segment of demand for thin sheet glass is relatively insulated from cyclical downturns in economic activity and attendant pressure on prices. In contrast, other, less important, dimensions of thin sheet glass demand, e.g., compact mirrors, do reflect recession impact. Witnesses noted that the flat trend in apparent consumption of thin sheet glass reflects the minimal overall impact of the recession. 2/

Varied methods of marketing thin sheet glass contribute to differences in competitive capability in terms of price. Jeannette markets the domestic product entirely through an independent distributor, GGI. 3/ Imported glass, in contrast, is marketed in three patterns: it can be purchased directly from a foreign producer, through an agent or broker, or bought through a distributor. Large quantities of imported thin sheet glass are purchased direct. 4/ Moreover, since January 1983, there has been a related-party dimension of pricing that involves Erie Scientific Corp. by virtue of Sybron's acquisition of Electroverre, the Swiss producer of thin sheet glass. * * *.

* * * * * * *

Both the domestic producer and the importers are in agreement that price is a very important factor affecting the sale of thin sheet glass, but that the quality is equally important. 5/ According to importers, quality-related factors affecting price are flatness, transparency, and uniformity of thickness. It was stated during the conference that the yield loss in cutting slides from domestic thin sheet glass was significantly higher than in making slides from imported glass. This, in turn, has an adverse effect on the competitiveness of the domestic product. As noted previously, there are two basic qualities of thin sheet glass: regular quality and high quality. According to conference testimony by a domestic fabricator, the price paid for the high-quality thin glass is much higher than that for regular-quality glass because, for the manufacture of high-technology items such as LED crystals, only glass meeting rigid specifications can be used. 6/

1/ Telephone conversation with Mr. H. Jelinick, President of Erie Scientific Corp., Apr. 7, 1983.

2/ See transcript of th public conference, pp. 61-62.

3/ However, the two firms collaborate on price on a case-by-case basis in facing import price competition.

4/ See transcript of the public conference, p. 134.

5/ Ibid., pp. 82, 99, and 116.

6/ Ibid., pp. 103-104.

The Commission requested price data for thin sheet glass from the U.S. producer, importers (two responded), and purchasers (seven responded). Price data were requested for the four types of regular-quality thin sheet glass listed below, by quarters, for the period January 1980 through March 1983.

Product 1: 1.00 mm micro glass, standard quality, 6-8 oz. per sq. ft. (0.038 inch-0.042 inch in thickness), in sizes up to 30 united inches.

Product 2: 1.00 mm micro glass, standard quality, 6-8 oz. per sq. ft. (0.038 inch-0.042 inch in thickness), in sizes of 31-50 united inches, inclusive.

Product 3: 1.2 mm lantern glass, standard quality, 9-11 oz. per sq. ft. (0.043 inch-0.053 inch in thickness), in sizes of 16-30 united inches, inclusive.

Product 4: 1.2 mm lantern glass, standard quality, 9-11 oz. per sq. ft. (0.043 inch-0.053 inch in thickness), in sizes of 31-60 united inches, inclusive.

The delivered prices for product 1 are presented in table 11. These prices were reported by purchasers for April 1981 through March 1983. The domestic weighted-average prices during that period increased from * * * per square foot during April-June 1981 to * * * per square foot in July-September 1981 and remained at this level until January-March 1983, when they fell by * * * percent. Prices for imports of product 1 were reported only from Switzerland, with the prices fluctuating between a low of * * * per square foot during July-September 1982 and a high of * * * during April-June and October-December 1981. At the low end of the range of import prices, the domestic product was undersold six times during the eight quarters for which comparisons could be made; at the high end, it was oversold in all quarters.

Prices for product 2 were reported by purchasers of the product from Switzerland and Belgium and by the domestic distributor. At the low as well as at the high ends of the range of import prices, the imports from Switzerland oversold the domestic product during all eight quarters for which comparisons were possible. As a whole, the Swiss prices rose slightly at the high end, and fluctuated somewhat at the low end. Weighted average prices rose during 1981 from * * * to * * * per square foot, declined during 1982, and then showed some recovery during the first quarter of 1983, to * * * per square foot. Prices for product 2 from Belgium increased irregularly from * * * per square foot during January-March 1981 to * * * during January-March 1983. The drop to * * * per square foot noted during April-June 1982 was a special purchase at a low, previously negotiated contract price. The Belgian prices were consistently higher than the low-end domestic prices, and in three instances (first and second quarter 1981 and first quarter 1983), higher than the high-end domestic prices.

Table 11.--Thin sheet glass: Ranges and weighted averages of importers' and domestic producer's net delivered prices paid by purchasers, by products and by quarters, January 1981-March 1983

(Per square foot)

Product and period	Prices of imports from--				Domestic prices	
	Switzerland		Belgium			
	Range	Weighted average	Range	Weighted average	Range	Weighted average
Product 1						
1981:						
Jan.-Mar---	***	***	-	-	-	-
Apr.-June--	***	***	-	-	***	***
July-Sept--	***	***	-	-	***	***
Oct.-Dec---	***	***	-	-	***	***
1982:						
Jan.-Mar---	***	***	-	-	***	***
Apr.-June--	***	***	-	-	***	***
July-Sept--	***	***	-	-	***	***
Oct.-Dec---	***	***	-	-	***	***
1983:						
Jan.-Mar---	***	***	-	-	***	***
Product 2						
1981:						
Jan.-Mar---	***	***	***	***	***	***
Apr.-June--	***	***	***	***	***	***
July-Sept--	***	***	***	***	***	***
Oct.-Dec---	***	***	-	-	***	***
1982:						
Jan.-Mar---	***	***	-	-	***	***
Apr.-June--	***	***	1/ ***	1/ ***	***	***
July-Sept--	***	***	-	-	-	-
Oct.-Dec---	***	***	-	-	***	***
1983:						
Jan.-Mar---	***	***	***	***	***	***

See footnote at end of table.

Table 11.--Thin sheet glass: Ranges and weighted averages of importers' and domestic producer's net delivered prices paid by purchasers, by products and by quarters, January 1981-March 1983--Continued

(Per square foot)

Product and period	Import prices from--				Domestic prices	
	Switzerland		Belgium			
	Range	Weighted average	Range	Weighted average	Range	Weighted average
Product 3						
1981:						
Jan.-Mar---	-	-	***	***	***	***
Apr.-June--	-	-	***	***	***	***
July-Sept--	-	-	***	***	-	-
Oct.-Dec---	-	-	***	***	-	-
1982:						
Jan.-Mar---	-	-	***	***	***	***
Apr.-June--	-	-	***	***	-	-
July-Sept--	-	-	***	***	***	***
Oct.-Dec---	-	-	***	***	-	-
1983:						
Jan.-Mar---	-	-	***	***	-	-
Product 4						
1981:						
Jan.-Mar---	***	***	***	***	***	***
Apr.-June--	***	***	***	***	***	***
July-Sept--	***	***	***	***	***	***
Oct.-Dec---	***	***	-	-	***	***
1982:						
Jan.-Mar---	***	***	***	***	***	***
Apr.-June--	***	***	***	***	***	***
July-Sept--	***	***	-	-	***	***
Oct.-Dec---	***	***	***	***	***	***
1983:						
Jan.-Mar---	***	***	***	***	***	***

1/ Special purchase at an earlier negotiated low price.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Price data for product 3 were reported only for imports from Belgium. Prices of the Belgian product declined marginally throughout the period covered and were lower than domestic prices in two cases out of four.

Prices for imports of product 4 were reported by purchasers of the product from Switzerland and Belgium. The prices for the Swiss product fluctuated during 1981 and 1982, rising irregularly from * * * in January-March 1981 to * * * during January-March 1982, and then declining to * * * at the end of 1982. Swiss prices rose to * * * in January-March 1983. The domestic glass price was below that of the imports from Switzerland in eight of nine quarters. Prices for imports from Belgium fluctuated in 1981, declined in the first quarter of 1982, and then recovered in the last quarter of 1982. The price of from Belgium product 4 was priced higher than that of the domestic product in early 1981, dropped below the domestic price in 1982, and was slightly higher in January-March 1983.

Margins of underselling or overselling.--Margins of underselling or overselling are based on the weighted-average price data presented in table 12. According to those data, product 1 imported from Switzerland oversold the corresponding domestic product in four instances during April 1981-March 1983, with the margins varying from a high of 14 percent to a low of 4 percent. It undersold the domestic product in two quarters of 1982 by margins of less than 0.5 and 2 percent. There were no prices reported for imports of product 1 from Belgium or West Germany.

In practically all cases dealing with product 2 the imports oversold the domestic product. The margin of overselling by the Swiss product was as high as 15 percent. With the exception of the one low contract price in April-June 1982, all sales of the product from Belgium reflected overselling by 9 to 14 percent.

Product 3 from Belgium oversold the domestic product by * * * percent during January-March 1981, but its price declined, and it undersold the domestic product by 2 percent in two periods in 1982.

Product 4 imported from Switzerland oversold the domestic product in almost all instances; the margins of overselling varied between 2 and 12 percent. The Swiss product undersold the domestic product by * * * percent in October-December 1981. Product 4 imported from Belgium undersold the domestic product in four quarters by margins ranging from less than 0.5 percent to 3 percent. It oversold the domestic product in three quarters by margins ranging from 1 to 9 percent.

Table 12.--Thin sheet glass: Margins of underselling or overselling , 1/ by products and by quarters, January 1981-March 1983

Product and period	Switzerland			Belgium		
	Swiss weighted average price	Domestic weighted average price	Margin	Belgian weighted average price	Domestic weighted average price	Margin
	Per square foot	Per square foot	Percent	Per square foot	Per square foot	Percent
Product 1						
1981:						
Jan.-Mar	***	-	-	-	-	-
Apr.-June	***	***	***	-	-	-
July-Sept	***	***	***	-	-	-
Oct.-Dec	***	***	***	-	-	-
1982:						
Jan.-Mar	***	***	***	-	-	-
Apr.-June	***	***	***	-	-	-
July-Sept	***	***	***	-	-	-
Oct.-Dec	***	***	***	-	-	-
1983:						
Jan.-Mar	***	***	***	-	-	-
Product 2						
1981:						
Jan.-Mar	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***
July-Sept	***	***	***	***	***	***
Oct.-Dec	***	***	***	-	***	-
1982:						
Jan.-Mar	***	***	***	-	***	-
Apr.-June	***	***	***	***	***	***
July-Sept	***	-	-	-	-	-
Oct.-Dec	***	***	***	-	***	-
1983:						
Jan.-Mar	***	***	***	***	***	***

See footnote at end of table.

Table 12.--Thin sheet glass: Margins of underselling or overselling, 1/ by products and by quarters, January 1981-March 1983--Continued

Product and period	Switzerland			Belgium		
	Swiss weighted average price	Domestic weighted average price	Margin	Belgian weighted average price	Domestic weighted average price	Margin
	Per square foot	Per square foot	Percent	Per square foot	Per square foot	Percent
Product 3						
1981:						
Jan.-Mar	-	-	-	***	***	***
Apr.-June	-	-	-	***	***	***
July-Sept	-	-	-	***	-	-
Oct.-Dec	-	-	-	***	-	-
1982:						
Jan.-Mar	-	-	-	***	***	***
Apr.-June	-	-	-	***	-	-
July-Sept	-	-	-	***	-	-
Oct.-Dec	-	-	-	***	***	***
1983:						
Jan.-Mar	-	-	-	***	-	-
Product 4						
1981:						
Jan.-Mar	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***
July-Sept	***	***	***	***	***	***
Oct.-Dec	***	***	***	-	***	-
1982:						
Jan.-Mar	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***
July-Sept	***	***	***	-	***	-
Oct.-Dec	***	***	***	***	***	***
1983:						
Jan.-Mar	***	***	***	***	***	***

1/ Overselling margins are shown with a negative sign.
2/ Less than 0.5 percent.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The Commission also obtained price data from importers and the domestic producer. These data are not truly comparable, mainly because the domestic producer does not sell the product directly, but instead uses an exclusive distributor which is committed to purchase the entire output produced by the petitioner, and because the import prices are a mix of related-party transactions, direct sales by agents, and sales by distributors. Such prices, however, have been converted to index numbers and are valid for analyzing price trends for domestic and imported thin sheet glass (table 13).

The price indexes for product 1, as reported by the sales agent for the domestic producer, rose by * * * percent from January-March 1981 to April-June 1981, and then remained unchanged during the rest of the period under investigation. Prices for Swiss product 1 increased less than those for the domestic product during 1981, but more in 1982. Such prices fell in January-March 1983.

Product 2 prices for domestic thin sheet glass remained unchanged during January-June 1981, increased by * * * percent in July-September 1981, and then remained at that level through January-March 1983. The Swiss prices for product 2 increased by * * * percent through July-September 1982, and then declined by * * * percent in October-December 1982. Prices for the Belgian product, reported only prior to the last quarter of 1981, increased by * * * percent in April-June 1981. The two instances reported for prices of the West German product show a * * * percent increase.

There were no domestic prices reported for product 3. This product was imported from Belgium and West Germany, however, with the Belgian prices remaining stable during 1981 and 1982, then rising by * * * percent during January-March 1983. West German product 3 showed a price increase of * * * percent during January 1981-March 1983.

Prices for domestic product 4 rose by * * * percent during the second half of 1981 and then declined irregularly during the last half of 1982. Prices for Swiss product 4 increased by * * * percent from January 1981 to March 1983, and prices for Belgian product 4 remained unchanged. Prices for West German product 4 remained relatively stable, increasing by * * * percent in the second and third quarters of 1982 and then falling back to the January 1981 level.

Table 13.--Thin sheet glass: Indexes of prices for domestic and imported products, by products and by quarters, January 1980-March 1983

(January-March 1981 or nearest quarter=100)

Product and period	Domestic product	Imports from Switzerland	Imports from Belgium	Imports from West Germany
PRODUCT 1				
1980:				
Jan.-Mar.	-	***	-	-
Apr.-June	-	***	-	-
July-Sept	-	***	-	-
Oct.-Dec.	-	***	-	-
1981:				
Jan.-Mar.	100	100	-	-
Apr.-June	***	***	-	-
July-Sept	***	***	-	-
Oct.-Dec.	***	***	-	-
1982:				
Jan.-Mar.	***	***	-	-
Apr.-June	***	***	-	-
July-Sept	***	***	-	-
Oct.-Dec.	***	***	-	-
1983: Jan.-Mar.	***	***	-	-
PRODUCT 2				
1980:				
Jan.-Mar.	-	-	***	-
Apr.-June	-	-	***	-
July-Sept	-	-	-	-
Oct.-Dec.	***	-	100	-
1981:				
Jan.-Mar.	100	100	-	-
Apr.-June	***	***	***	-
July-Sept	***	***	***	-
Oct.-Dec.	***	***	-	100
1982:				
Jan.-Mar.	***	***	-	-
Apr.-June	***	***	-	***
July-Sept	***	***	-	-
Oct.-Dec.	***	***	-	-
1983: Jan.-Mar.	***	-	-	-

Table 13.--Thin sheet glass: Price indexes for domestic and imported products, by product and by quarters, January 1980-March 1983--Continued

(January-March 1981 or nearest quarter=100)

Product and period	Domestic Product	Imports from Switzerland	Imports from Belgium	Imports from West Germany
Product 3				
1980:				
Jan.-Mar-------	-	-	***	***
Apr.-June------	-	-	***	***
July-Sept------	-	-	***	-
Oct.-Dec-------	-	-	***	***
1981:				
Jan.-Mar-------	-	-	100	100
Apr.-June------	-	-	***	***
July-Sept------	-	-	***	***
Oct.-Dec.------	-	-	-	***
1982:				
Jan.-Mar-------	-	-	***	***
Apr.-June------	-	-	***	***
July-Sept------	-	-	-	***
Oct.-Dec-------	-	-	-	***
1983: Jan.-Mar--	-	-	***	***
Product 4				
1980:				
Jan.-Mar-------	-	***	***	***
Apr.-June------	-	***	***	***
July-Sept------	***	***	-	***
Oct.-Dec-------	***	***	***	-
1981:				
Jan.-Mar-------	100	100	100	100
Apr.-June------	***	***	***	***
July-Sept------	***	***	***	***
Oct.-Dec.------	***	***	***	***
1982:				
Jan.-Mar-------	***	***	***	***
Apr.-June------	***	***	***	***
July-Sept------	***	***	***	***
Oct.-Dec-------	***	***	***	***
1983: Jan.-Mar--	***	-	***	***

Source: Calculated from data submitted in response to questionnaires of the U.S. International Trade Commission.

Exchange rate changes and their impact on prices of imports of thin sheet glass.--The currencies of Belgium, Switzerland, and West Germany have depreciated in terms of the U.S. dollar during 1979-82, as indicated in table 14.

Table 14.--Index of exchange rates between the U.S. and Belgium, Switzerland, and West Germany, by quarters, 1979-82

(January-March 1979 = 100.00)

Year	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.
	Belgian francs per U.S. dollar			
1979	100.00	103.37	99.43	97.67
1980	98.29	99.32	97.10	104.82
1981	115.42	126.98	135.90	128.88
1982	141.65	153.70	162.39	166.36
	Swiss francs per U.S. dollar			
1979	100.00	102.26	97.78	96.96
1980	99.24	100.51	97.44	102.91
1981	113.25	121.43	125.17	109.13
1982	111.87	119.02	126.10	127.76
	West German marks per U.S. dollar			
1979	100.00	106.16	97.98	95.22
1980	95.62	97.62	95.74	103.05
1981	112.51	122.70	131.17	121.04
1982	126.49	128.22	133.79	134.86

Source: International Monetary Fund, International Financial Statistics, March 1983.

The Belgian franc depreciated by 66 percent from 29.28 francs per dollar during January-March 1979 to 48.72 francs per dollar during October-December 1982. During the same period, the Swiss franc depreciated by 28 percent, from 1.68 francs per dollar to 2.14 francs per dollar during the fourth quarter of 1982. The West German mark depreciated 35 percent over the period, with the value of the U.S. dollar rising from 1.86 marks per dollar to 2.50 marks per dollar.

The depreciation of the three European currencies made their thin sheet glass products more competitive in the U.S. market. The testimony presented during the public conference revealed that the strengthening of the dollar vis-a-vis the Belgian franc, Swiss franc, and West German mark did not result in dollar price reductions, but allowed the foreign producers to raise their prices at a slower pace. At the same time, the appreciation of the dollar allowed the foreign producers to recover more of their increasing costs as a result of the increased earnings in local currencies.

Lost sales

Jeannette reported sales of thin sheet glass lost to imports from Belgium and Switzerland involving three purchasers of the thin sheet glass. There were no allegations of lost sales involving imports from West Germany. All three of these companies responded to the Commission's purchaser's questionnaire, and information in this section of the report is based on those questionnaire responses, as well as phone calls by the staff.

Jeannette alleged * * * instances of lost sales at * * *. All the allegations involved sales lost to imports from * * *. Data from this firm's questionnaire indicate that it purchased thin sheet glass from * * * in 1980 and 1981 and purchased the product from * * * in 1981 and 1982. The volume of purchases from both sources is shown in the following tabulation:

	U.S.-produced glass (1,000 pounds)	(1,000 pounds)
1980	***	***
1981	***	***
1982	***	***

Jeannette alleged losing a sale to * * * of thin sheet glass valued at * * * to imports from * * * in 1980. * * * reported no purchases of this product from * * * in 1980. Jeannette alleged losing another sale to this firm of * * * valued at * * * in 1981. This exceeds the total purchases of * * * from * * * in that year. Jeannette alleged another lost sale to this firm of * * * valued at * * * in 1982. Again, this exceeds * * * total purchases from * * * in 1982. The purchasing pattern of * * * did indicate a shift from the domestic to the * * * glass during 1980-82. A spokesperson for * * * stated that the reason for a shift to the * * * product was quality. The price difference between the * * * and domestic product was said to be close and not a deciding factor. This firm would prefer to purchase from Jeannette but it has problems with the quality. The spokesperson said the * * *. The source indicated that prior to 1980 * * * had purchased glass from * * * however, the quality of this glass was not as good as the * * * glass and, therefore, * * * stopped purchasing from * * *.

Jeannette alleged a lost sale at * * * of * * * of thin sheet glass valued at * * * to the * * * product in 1981. * * *. * * *. * * * reported the following purchases of thin sheet glass (in thousands of pounds):

	U.S.-produced glass	Belgium glass	Swiss glass	West German glass
1980	***	***	***	***
1981	***	***	***	***
1982	***	***	***	***

* * *. A spokesperson contacted by the staff indicated that quality was the deciding factor in the firm's declining purchases from Jeannette. The source indicated that * * * gave Jeannette "every opportunity to get our business but the quality of their glass was unsatisfactory."

Jeannette alleged losing a sale at * * * of * * * of thin sheet glass valued at * * * in * * * to the product imported from * * *. Jeannette did not begin producing glass until March 1980. * * *'s purchases for 1980-82 are shown in the following tabulation (in thousands of pounds):

	U.S.-produced glass	*** glass	*** glass
1980----------	***	***	***
1981----------	***	***	***
1982----------	***	***	***

* * * purchased the bulk of its thin sheet glass requirements from Jeannette during 1980-82. A spokesperson for * * * advised that his company prefers to purchase from Jeannette because its service is better and the delivery lead time is much shorter. However, the quality of Jeannette's product is not as good as that of the * * * and * * * glass. Some of * * *'s customers specify either the * * * or * * * glass. The spokesperson advised that Jeannette's prices are slightly higher than those of the imports, but this is offset by better service and delivery. He further stated that because of lower quality, Jeannette has had to lower its prices to get his business.

Lost revenue

Jeannette also reported 29 instances, involving 7 purchasers, when it had to lower its price for thin sheet glass in order to make a sale because of price competition from imports. Information in this section of the report is based on phone calls by the staff and questionnaire responses.

Jeannette alleged seven instances of lost revenue involving five purchasers of thin sheet glass in 1980. The total reported value of its initial rejected quotations was * * *. The total price at which the alleged sales were made was * * * which would indicate lost revenue of * * *. The * * * at which the sales were allegedly made, however, far exceeds Jeannette's reported net sales in 1980 of * * *.

In 1981, Jeannette alleged seven additional instances of lost revenues involving six purchasers of thin sheet glass. The total reported value of the initial rejected quotations was * * *. The total price at which Jeannette reported actually making the sales was * * * indicating lost revenue of * * *. Again, however, the price at which the sales were made far exceeds Jeannette's reported net sales for 1981 of * * *.

In 1982, Jeannette alleged nine instances of lost revenue involving seven customers. The total reported value of the initial quotations was * * *. The price at which the sales were reportedly made was * * * again substantially higher than Jeannette's total net sales in 1982 of * * *.

When contacted about these apparant discrepancies, a spokesperson for the company explained that the information provided to the Commission as lost revenue was calculated on the basic of projected orders by the various purchasers, not on actual shipments to those purchasers. Thus, the Commission is unable to determine the extent of lost revenue or verify and quantify the alleged instances with individual purchasers. The staff did, however, contact all the purchasers cited in the questionnaire, and information provided by these purchasers is presented below.

Jeannette reported * * * instances of price suppression or depression resulting in lost revenue involving * * *. The allegations cited imports from * * *. * * * did not respond to the Commission's questionnaire; however, a spokesperson for the firm did discuss its purchase of thin sheet glass with the Commission staff. * * * stated that he is responsible for purchasing decisions on thin sheet glass. * * * reported that when Jeannette began producing glass, the firm negotiated a contract to purchase the domestic glass at a given price, which was higher than what he pays for the imported product. He stated that the higher price was agreed to because delivery is better from Jeannette and he felt that as a domestic firm it would be a more reliable supplier. In 1980, * * * divided its orders for thin sheet glass evenly among producers in * * * and Jeannette. In 1981, the firm purchased approximately * * * percent more from Jeannette than from any other source. * * * stated that in 1981 he negotiated a price increase with Jeannette; in 1982, particularly in the last 6 months, he ordered less from Jeannette because of problems with the quality of its glass, although he still purchased approximately * * * percent of his glass requirements from Jeannette. Specific quality problems cited were warpage, which causes the glass to shatter when cut, scratches on the glass surface, and stones or defects on the glass itself. * * * said the yield from the domestic glass is much lower than that from any of the imported glass. He reported that recently the agents for Jeannette had indicated they would like to negotiate another increase in the price for the Jeannette glass. * * * said he would be unwilling to pay more for the Jeannette product until the quality of the glass improves.

Jeannette alleged * * * instances of price suppression or depression resulting in lost revenue involving * * *. The allegations cited competition from * * *. * * * produces * * *. A spokesperson for the firm reported that it purchases glass from * * * at prices which are higher than those for Jeannette's glass. The spokesperson said the quality of the * * * product is much better and, therefore, the yield of the glass and the productivity of his employees are better. He indicated that he purchases from Jeannette as a backup supplier but it has not achieved the necessary quality to be his main source of supply. The source added that if the price of the * * * glass increased, he would still continue to buy it.

Jeannette alleged * * * instances of lost revenue involving * * *. A spokesperson for * * * responded to the purchaser questionnaire and staff phone calls as well. * * * would prefer to purchase its thin glass from Jeannette because the price is lower and it is a more convenient supplier. However, * * * has had problems with the quality of Jeannette's glass and is unable to get good cuts from it. The spokesperson said this results in a lower yield from the raw material, as well as an additional loss due to

downtime and labor. This spokesperson stated that he does not recall any instances where Jeannette lowered its price to make a sale, although Jeannette has been told, through GGI, that * * * would not be able to pay any more for its glass.

Jeannette alleged * * * instances of price suppression or depression involving * * *. This firm was also cited with respect to lost sales and information provided by the firm through its questionnaire response and a telephone conversation with the staff is presented in that section of the report.

Jeannette alleged * * * instances of lost revenue involving * * *. The allegations were of price suppression or depression due to imports from * * *. * * * responded to the Commission's questionnaire and provided additional information in a phone conversation with the staff. * * * purchases all its thin sheet glass from Jeannette. It purchases * * *. A spokesperson for * * * stated that he believes the imported glass is sold at basically the same price. * * * has had no problems with the quality of the Jeannette product.

Jeannette cited * * * instances when it had to lower its price due to competition from imports from * * *. This firm did not respond to the Commission's questionnaire; however, it did provide some information over the phone. A spokesperson for * * * stated that it has purchased only from Jeannette since Jeannette has been in operation. * * *. The spokesperson said he could buy the glass more cheaply from Europe, but quality is very important and the quality of Jeannette's glass is more consistent. * * * also gets a better flow of supply from Jeannette.

Jeannette alleged four instances of lost revenue involving * * *. The allegations involved price suppression or depression due to imports from * * *. This firm did not respond to the Commission's questionnaire and would not provide any information over the phone.

APPENDIX A

FEDERAL REGISTER NOTICE OF THE INSTITUTION OF THE PRELIMINARY INVESTIGATIONS

[Investigations Nos. 731-TA-127, 128 and 129 (Preliminary)]

Thin Sheet Glass From Switzerland, Belgium, and the Federal Republic of Germany

AGENCY: International Trade Commission.

ACTION: Institution of preliminary antidumping investigations and scheduling of a conference to be held in connection with the investigations.

EFFECTIVE DATE: March 16, 1983.

SUMMARY: The United States International Trade Commission hereby gives notice of the institution of preliminary antidumping investigations under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Switzerland, Belgium, and the Federal Republic of Germany of thin sheet glass, provided for in items 542.11 and 542.13 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value.

FOR FURTHER INFORMATION CONTACT: Ms. Judith Zeck, Office of Investigations, U.S. International Trade Commission, 701 E St., NW., Washington, D.C. 20436, telephone 202-523-0339.

SUPPLEMENTARY INFORMATION:

Background.— These investigations are being instituted in response to a petition filed on March 16, 1983, on behalf of Jeannette Sheet Glass Corp., Jeannette, Pa., a domestic producer of the subject merchandise. The Commission must make its determinations in the investigations within 45 days after the date of the filing of the petition, or by May 2, 1983 (19 CFR 207.17).

Participation.—Persons wishing to participate in these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided for in section 201.11 of the Commission's Rules of Practice and Procedure (19 CFR 201.11), not later than seven (7) days after the publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who shall determine whether to accept the late entry for good cause shown by the person desiring to file the notice.

Service of documents.—The Secretary will compile a service list from the entries of appearance filed in the investigations. Any party submitting a document in connection with the investigations shall, in addition to complying with § 201.8 of the Commission's rules (19 CFR 201.8), serve a copy of each such document on all other parties to the investigations. Such service shall conform with the requirements set forth in § 201.16(b) of the rules (19 CFR 201.16(b)), as amended by 47 FR 33682, Aug. 4, 1982).

In addition to the foregoing, each document filed with the Commission in the course of these investigations must include a certificate of service setting forth the manner and date of such service. This certificate will be deemed proof of service of the document. Documents not accompanied by a certificate of service will not be accepted by the Secretary.

Written submissions.—Any person may submit to the Commission on or before April 14, 1983, a written statement of information pertinent to the subject matter of these investigations (19 CFR 207.15). A signed original and fourteen (14) copies of such statements must be submitted (19 CFR 201.8).

Any business information which a submitter desires the Commission to treat as confidential shall be submitted separately, and each sheet must be clearly marked at the top "Confidential Business Data." Confidential submissions must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6). All written submissions, except for confidential business data, will be available for public inspection.

Conference.—The Director of Operations of the Commission has scheduled a conference in connection with these investigations for 9:30 a.m., on April 11, 1983, at the U.S. International Trade Commission Building, 701 E Street, NW., Washington, D.C. Parties wishing to participate in the conference should contact the staff investigator, Ms. Judith Zeck (202-523-0339), not later than April 4, 1983, to arrange for their appearance. Parties in support of the imposition of antidumping duties in the investigations and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Public inspection.—A copy of the petition and all written submission, except for confidential businesss data, will be available for public inspection

during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 E Street, NW., Washington, D.C.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's Rules of Practice and Procedure, Part 207, subparts A and B (19 CFR Part 207, as amended by 47 FR 33682, August 4, 1982), and Part 201, subparts A through E (19 CFR Part 201, as amended by 47 FR 33682, August 4, 1982). Further information concerning the conduct of the conference will be provided by Ms. Zeck.

This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

Issued: March 23, 1983.

Kenneth R. Mason,

Secretary.

[FR Doc. 83-8220 Filed 3-29-83; 8:45 am]

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APPENDIX B

CALENDAR OF THE PUBLIC CONFERENCE

CALENDAR OF PUBLIC CONFERENCE

Investigations Nos. 731-TA-127, 128, and 129 (Preliminary)

THIN SHEET GLASS FROM SWITZERLAND, BELGIUM, AND WEST GERMANY

Those listed below appeared as witnesses at the United States International Trade Commission's conference which was held in connection with the subject investigation at 9:30 a.m. on Monday, April 11, 1983, in the Sunshine Room of the USITC Building, 701 E Street, NW., Washington, D.C.

In support of the petition

Law Offices of Eugene L. Stewart--Counsel
Washington, D.C.
on behalf of

Jeannette Sheet Glass Corp.

William G. Tofaute, President, Jeannette Sheet Glass Corp.
Albert S. Balik, President, General Glass International Corp.

Eugene L. Stewart)
James R. Cannon) --OF COUNSEL

In opposition to the petition

Hodgson, Russ, Andrews, Woods & Goodyear--Counsel
Buffalo, N.Y.
on behalf of

Erie Scientific Co., Division of Sybron Corporation
Erie-Electroverre, S.A. of Romont Switzerland, Subsidiary of Sybron

F. Jelinek, Division-President, Erie Scientific
Fred Piehl, Vice President, Erie Scientific
Ernest Behr, General Manager, Hauser Scientific

Anthony Dutton)--OF COUNSEL

Ulmer, Berne, Laronge, Glickman & Curtis--Counsel
Cleveland, Ohio
on behalf of

Glaverbel, S.A. of Brussels, Belgium

Andre Van Rossomme, Exective of Glaverbel S.A.

Ronald H. Isroff)
Morton L. Stone) --OF COUNSEL

Daniels, Houlihan & Palmeter--Counsel
Washington, D.C.
on behalf of

Flachglass, A.G., West Germany
Crystal International Corp.

Joachim von Roemer, President, Crystal International Corp.

Marsha Echols)--OF COUNSEL

Donnelly Mirrors, Inc.
Holland, Mich.

Richard Cook, Director of Technology

August 31, 1983

UNITED STATES INTERNATIONAL TRADE COMMISSION

WASHINGTON, D.C. 20436

TO WHOM IT MAY CONCERN:

An editorial error appears on page 10 of U.S. International Trade Commission publication 1376 (May 1983), entitled Thin Sheet Glass from Switzerland, Belgium, and the Federal Republic of Germany: Determinations of the Commission in Investigations Nos. 731-TA-127, 128, and 129 (Preliminary) Under the Tariff Act of 1930, Together with the Information Obtained in the Investigations. The third word in the third line of the only full paragraph on that page should be "lower" instead of "higher." This correction does not change the substance of the paragraph. The corrected paragraph reads as follows:

"Information on the record with regard to purchaser's prices 39/ indicates that, on a weighted average basis, the domestic product was frequently priced lower than the products imported from Switzerland. 40/ The Commission received information on three thin glass products sold during the period from January 1981 through March 1983. In eighteen of twenty-two price comparisons, the comparable domestic product undersold the Swiss product. 41/ In three of the four instances of underselling by the imports, the margin of underselling was minimal. The fourth instance was a price negotiated on a long term contract. 42/"

39/ While it is unusual for purchaser pricing data to be available in preliminary investigations, the Commission received price data from purchasers in the subject investigations. These purchasers' responses reflect a substantial proportion of the market for regular quality thin sheet glass and are representative of the industry.

40/ Commission report at A-28-29. The Commission requested purchaser's price information on four regular quality thin glass products imported from the three countries. These products were 1mm microglass imported in sizes up to 30 united inches and over 30 united inches and 1.2mm lantern glass in sizes of 16-30 united inches, inclusive, and in sizes of 31-60 united inches, inclusive.

41/ Id.

42/ Id. at A-32.