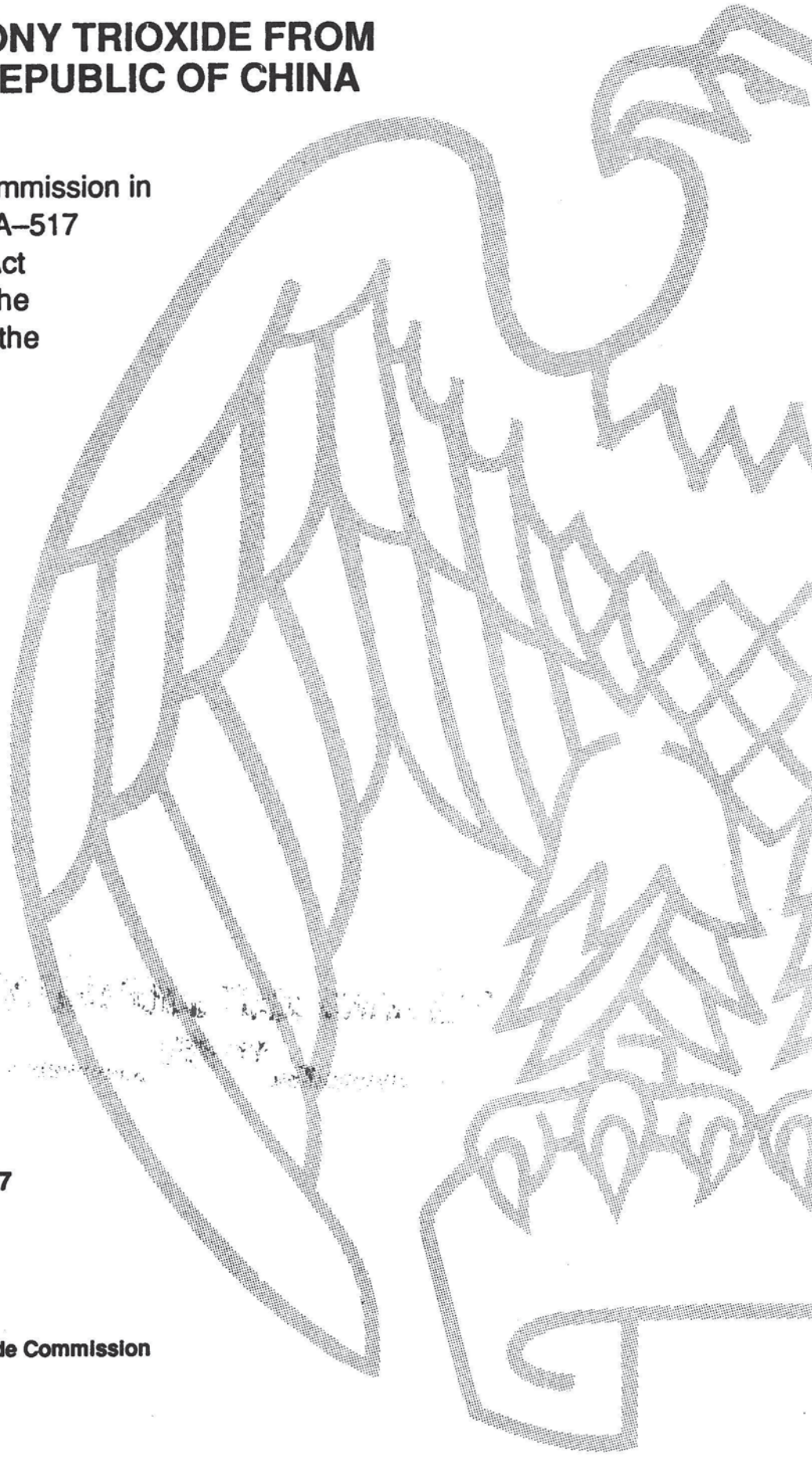
REFINED ANTIMONY TRIOXIDE FROM THE PEOPLE'S REPUBLIC OF CHINA

Determination of the Commission in Investigation No. 731–TA–517 (Final) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation



USITC PUBLICATION 2497

APRIL 1992

United States International Trade Commission
Washington, DC 20436

REDEFINED ANTIMONY TRIOXIDE FROM THE PEOPLE'S REPUBLIC OF CHINA

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Don E. Newquist, Chairman
Anne E. Brunsdale, Vice Chairman
David B. Rohr
Carol T. Crawford
Janet A. Nuzum
Peter S. Watson

Charles Ervin,
Director of Operations

Staff assigned:

Brad Hudgens, *Investigator*
Jack Greenblatt, *Industry Analyst*
Gerry Benedick, *Economist*
James Stewart, *Accountant*
Elizabeth Hafner, *Attorney*

George Deyman, *Supervisory Investigator*

Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

CONTENTS

Note.--Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-517 (Final)

REFINED ANTIMONY TRIOXIDE FROM THE PEOPLE'S REPUBLIC OF CHINA

Determination

On the basis of the record[1] developed in the subject investigation, the Commission determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the act), that an industry in the United States is not materially injured or threatened with material injury, and the establishment of an industry in the United States is not materially retarded, by reason of imports from the People's Republic of China of refined antimony trioxide, provided for in subheading 2825.80.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce to be sold in the United States at less than fair value (LTFV).

Background

The Commission instituted this investigation effective October 7, 1991, following a preliminary determination by the Department of Commerce that imports of refined antimony trioxide from the People's Republic of China were being sold at LTFV within the meaning of section 733(b) of the act (19 U.S.C. § 1673b(b)). Notice of the institution of the Commission's investigation and of a public hearing 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, DC, and by publishing the notice in the Federal

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

Register of October 23, 1991 (56 F.R. 54887). Subsequent to Commerce's postponement of its final LTFV determination (56 F.R. 56631, November 6, 1991), the Commission revised its schedule to conform with Commerce's new schedule (56 F.R. 63524, December 4, 1991). The hearing was held in Washington, DC, on February 25, 1992, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF THE COMMISSION

On the basis of the information obtained in this final investigation, we have unanimously determined that an industry in the United States is neither materially injured nor threatened with material injury by reason of imports of refined antimony trioxide from the People's Republic of China (the PRC or China) determined by the Department of Commerce (Commerce) to have been sold at less than fair value (LTFV).[1]

I. Like Product and Domestic Industry

To determine whether material injury by reason of dumped imports exists, the Commission must first identify the "like product" and the "domestic industry." The term "industry" is defined 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..."[2] In turn, 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..."[3]

In making the like product determination, the Commission generally considers a number of factors including: (1) physical characteristics and uses, (2) interchangeability, (3) channels of distribution, (4) common manufacturing facilities and production

---

[1] Material retardation is not an issue in this investigation; therefore, it will not be discussed further.
[2] 19 U.S.C. § 1677(4)(A).
[3] 19 U.S.C. § 1677(10).

employees, (5) customer or producer perceptions, and, where appropriate (6) price.[4] The Commission may consider other relevant factors based upon the facts of a particular investigation. The Commission looks for clear dividing lines between like products,[5] and has found minor distinctions to be an insufficient basis for finding separate like products.[6] The Commission's like product determination is essentially a factual one and is made on a case-by-case basis.[7]

The Department of Commerce has defined the imported product found to be sold at LTFV as:

> refined antimony trioxide (also known as antimony oxide) from the PRC. Antimony trioxide is a crystalline powder of the chemical formula Sb_2O_3, as provided for in subheading 2825.80.00 of the Harmonized Tariff Schedules of the United States (HTS). Refined antimony trioxide includes blends with organic or inorganic additives comprising up to and including 20 percent of the blend by volume of weight. Crude antimony trioxide (antimony trioxide having less than

---

[4] See, e.g., Shop Towels from Bangladesh, Inv. No. 731-TA-514. USITC Pub. 2487 (Feb. 1992); Sweaters, Inv. Nos. 731-TA-448-450 (Final), USITC Pub. 2312 at 4-5 (September 1990); Asociacion Colombiana De Exportadores De Flores v. United States, 693 F. Supp. 1165, 1169 (CIT 1988)(ASOCOFLORES).

[5] See, e.g. Heavy Forged Handtools from the People's Republic of China, Inv. No. 731-TA-457 (Final), USITC Pub. 2357 (February 1991); Fresh and Chilled Atlantic Salmon from Norway, Inv. No. 731-TA-454 (Preliminary), USITC Pub. 2272 (April 1990); Antifriction Bearings (Other than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, France, Italy, Japan, Romania, Singapore, Sweden, Thailand, and the United Kingdom, Inv. Nos. 303-TA-19 and 20, 731-TA-391-399 (Final), USITC Pub. 2185 (May 1989).

[6] ASOCOFLORES, 693 F. Supp. at 1168-69; S. Rep. 249, 96th Cong., 1st Sess. 90-91 (1979).

[7] ASOCOFLORES, 693 F. Supp at 1169 (like product determination essentially one to be based on the unique facts of each case); Shop Towels from Bangladesh, Inv. No. 731-TA-514. USITC Pub. 2487 (Feb. 1992).

98 percent Sb_2O_3) is excluded.[8]

Refined antimony trioxide is a white, generally powdery, chemical used as a flame retardant. Refined antimony trioxide is made from any one of three intermediate products: crude antimony trioxide, antimony sulfide concentrate, or antimony metal. All three intermediate products are produced from raw antimony ore. The domestic producers of refined antimony trioxide generally purchase the intermediate products from importers and each domestic producer has the capacity to produce refined antimony trioxide from at least two of the three intermediate products.[9]

In the preliminary investigation, the Commission considered including crude antimony trioxide in the definition of like product.[10] Based on the different degrees of purity and particle size between the crude and refined products, the different channels of distribution, the distinct end users, the separate production processes and the significant value-added in the production of refined antimony trioxide, the Commission concluded that refined antimony trioxide alone constituted the like product.[11]

In its preliminary determination, the Commission noted the possible applicability of the semifinished/finished product

---

[8] 57 Fed. Reg. 6801 (Feb. 28, 1992).
[9] Staff Report at A-8.
[10] Commissioners Crawford, Nuzum and Watson did not participate in the preliminary investigation on refined antimony trioxide as they were not on the Commission at that time.
[11] Refined Antimony Trioxide from the People's Republic of China, Inv. No. 731-TA-517 (Preliminary) USITC Pub. 2395 (June 1991) at 6-7.

analysis and invited the parties to further brief the issue in any final investigation.[12] No evidence or argument on the semifinished/finished product analysis was submitted to us. We therefore see no need to investigate further this issue.[13] Because no evidence has arisen in this final investigation to suggest a different like product definition, we affirm the like product determination in the preliminary investigation.

Based on our definition of the like product, we define the domestic industry to include all domestic producers of refined antimony trioxide. In this industry, production of refined antimony trioxide is performed by most companies on both a toll and non-toll basis.[14]

It has been the Commission's practice to include all domestic production, whether toll-produced, captively consumed, or sold in the open market, in the definition of the domestic

---

[12] Antimony Trioxide, USITC Pub. 2395 at 7. The Commission is not compelled to define the like product in the final as it did in the preliminary determination. Cf. Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1087-1088 (CIT 1988)(The Commission can find a different like product in light of new evidence and new arguments.)

[13] Cf. Magnesium from Canada and Norway, Inv. Nos. 701-TA-309, 731-TA-528 & 529 (Preliminary) USITC Pub. 2443 (October 1991) at I-10 to I-11; Generic Cephalexin Capsules from Canada, Inv. No. 731-TA-423 (Final) USITC Pub. 2211 (Aug. 1989) at 7-8.

[14] Tolling is an arrangement under which the end users of refined antimony trioxide purchase the intermediate product and deliver it to the processor. The processor then processes, in this case "refines", the product and delivers the finished product to the customer. The processor never takes title to the antimony, and only charges the end user a refining fee. See generally, Report at A-20 to A-22. Cf. Shop Towels from Bangladesh, USITC Pub. 2487 at 10 (Some producers were vertically integrated to produce fabric as well as towels, others purchased the fabric and made towels to sell on the open market, and still others converted the fabric on a toll basis.)

industry.[15] This practice is based on the statutory definition of industry which focuses on production and the factors of production.[16] We therefore define the domestic industry to include all producers, and all production, of refined antimony trioxide.[17]

II. Condition Of The Industry

In assessing whether there is material injury by reason of the dumped imports, the Commission is instructed to consider all

---

[15] See, e.g., Certain Brass Sheet and Strip from Brazil, Canada and the Republic of Korea, Inv. Nos. 701-TA-269, 731-TA-311, 312 & 315 (Final), USITC Pub. 1930 (December 1986); Certain Brass Sheet and Strip from France, Italy, Sweden and West Germany, Inv. Nos. 701-TA-270, 731-TA-313, 314, 316 & 3175 (Final), USITC Pub. 1951 (February 1987); Certain Brass Sheet and Strip from Japan and the Netherlands, Inv. No. 731-TA-379 & 380 (Final), USITC Pub. 2099 (July 1988); Shop Towels from Bangladesh, Inv. No. 731-TA-514, (Final) USITC Pub. 2487 (Feb. 1992).

[16] In Thermostatically Controlled Appliance Plugs and Internal Probe Thermostats, a case involving captive production (which petitioner suggested is similar to toll production), the Commission noted that:

> There is no statutory basis for excluding captive production. The statute 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.]" 19 U.S.C. § 1677(4)(A). The statute further instructs the Commission, as a general rule, that "[t]he effect of the subsidized or dumped imports shall be assessed in relation to the United States production of a like product..." 19 U.S.C. § 1677(4)(D). Thus, the statute defines industry in terms of production, not in terms of markets, distribution channels, or similar factors.

Thermostatically Controlled Appliance Plugs and Internal Probe Thermostats from Canada, Japan, Malaysia and Taiwan, Inv. Nos. 701-TA-292, 731-400 and 402-404 (Final), USITC Pub. 2152 at 8 and 9 (January 1989) quoting, Industrial Phosphoric Acid from Belgium and Israel, Inv. Nos. 701-TA-285-286 and 731-TA-365-366 (Preliminary), USITC Pub. 1931 at 7, n.20 (1986).

[17] For the reasons stated in the preliminary determination, we also conclude that the record does not warrant excluding Amspec from the domestic industry as a related party. Refined Antimony Trioxide, USITC Pub. 2395 at 7.

the "relevant economic factors which have a bearing on the state of the industry in the United States."[18] [19] In undertaking that assessment, we consider, among other factors, U.S. consumption, production, shipments, capacity utilization, employment, wages, financial performance, capital investment, and research and development expenses.[20] In each investigation the Commission considers the particular nature of the industry under investigation,[21] including the "conditions of competition that are distinctive to the affected industry."[22]

We note two significant conditions affecting competition in this industry: the dramatic increase in tolling over the period of investigation and the steady decline in the cost of the intermediate products.

Between 1988 and 1990, toll production increased from 4.3 percent of total domestic production to 20.6 percent. The increase continued during the interim period with toll production rising from 20.7 percent of total production in the first nine months of 1990 to 23.0 percent in the first nine months of 1991.[23]

The growth in toll production has resulted from the large buyers having the ability and the incentive to contain costs by

---

[18] 19 U.S.C. § 1677(7)(C)(iii).
[19] Chairman Newquist and Commissioners Rohr and Nuzum note that no single factor should be considered dispositive in evaluating of the condition of the domestic industry.
[20] Id.
[21] See, Id. See also, H.R. Rep. 317, 96th Cong., 1st Sess. at 36; S. Rep. 249, 96th Cong., 1st Sess. at 88.
[22] 19 U.S.C. § 1677(7)(C)(iii).
[23] Report at A-21, table 7.

purchasing the intermediate products themselves and paying only a tolling fee.[24] Detailed information regarding toll-purchasers' buying patterns and incentives is confidential due to the limited number of such firms.

The other significant condition affecting competition in this industry is the decline in the unit value and price of the intermediate products from which refined antimony trioxide is produced. For example, unit value per pound of crude antimony trioxide declined from $1.02 in 1988 to $0.74 in 1990 and remained fairly steady in interim 1990 compared to interim 1991.[25]

Total apparent consumption of refined antimony trioxide increased from 55.9 million pounds in 1988 to 58.4 million pounds in 1989 but then declined slightly to 57.0 million pounds in 1990. From January to September, 1991, U.S. apparent consumption was 39.3 million pounds compared to 41.7 million pounds from January to September 1990.[26] Such a decline can be explained in part by the general economic slowdown and the resulting reduction of purchases of many of the products made with refined antimony trioxide.[27]

---

[24] Report at A-20 to A-22, A-69.
[25] Report at Appendix H, at B-32, table H-1. See also, Petitioners' Prehearing Brief at 7; Report at A-32, table 14.
[26] Report at A-12.
[27] Refined antimony trioxide is used as a flame retardant in many consumer goods such as plastics, electronics, paints, etc. See Report at A-6, table 1.

Capacity and production data[28] for this industry both show positive trends. Average-of-period production capacity increased 16 percent from 1988 to 1990 and production during that period increased 12 percent.[29] Average-of-period capacity utilization fluctuated throughout the period of investigation, but remained above 70 percent. Capacity, production and capacity utilization declined in interim 1991 compared to interim 1990, coincident with the general decline in consumption during those periods.[30]

The quantity of domestic producers' shipments increased steadily from 1988 to 1990, but then fell in interim 1991 when compared to interim 1990.[31] U.S. producers' shipments accounted for 80.2 percent of the domestic market in 1988, rising to 82.8 percent in 1990. That upward trend continued in the interim period, rising from 81.9 percent for the first nine months of 1990 to 82.2 percent for the first nine months of 1991.[32] Thus, although domestic shipments declined slightly in interim 1991 compared to interim 1990, domestic producers accounted for an increased share of domestic consumption.

The significant, and growing, toll production in this industry leads us to discount the data on total and unit value of U.S. producers' shipments as an indicator of the condition of the

---

[28] As required by the statute, we consider the entire industry. Therefore, unless specifically noted, the data concerning the condition of the domestic industry includes both toll and non-toll production.
[29] Report at A-21, table 6; Cf, table 7.
[30] Report at A-21, table 6.
[31] Report at A-12, table 2.
[32] Report at A-44, table 24.

industry. The aggregation of the value of toll and non-toll shipments is problematic because the value of the non-toll product includes the cost of the input product as well as the refining charges whereas the value of the toll product includes only the refining charge. Accordingly, the unit value for toll shipments is lower than the unit value for the non-toll shipments.[33] As a result, the rise in toll production (with its lower unit cost), as a percentage of total production, will cause a downward trend in the total value of shipments notwithstanding an increase in the total quantity of shipments.[34]

Inventories of domestically produced refined antimony trioxide grew over the period of investigation, rising 29 percent from 1988 to 1990. A comparison of the first nine months of 1990 to the first nine months of 1991 show a decline in inventories from 8.6 million pounds to 5.9 million pounds, a 35 percent decline.[35]

Employment data show the number of production and related workers producing refined antimony trioxide declining over the period of investigation. From 1988 to 1990, productivity increased by over 22 percent, at the same time that the number of production and related workers producing refined antimony trioxide declined 23 percent and the number of hours worked declined 8 percent. Productivity remained steady through the

---

[33] Report at A-23, table 8.
[34] In fact we note that although the total value of non-toll shipments declined 18 percent from 1988 to 1990, the value of toll shipments increased 440 percent. Report at A-23, table 8.
[35] Report at A-29, table 12.

rest of the period of investigation, notwithstanding fluctuations in the number of workers and the hours they worked. Hourly wages also increased steadily over the period of investigation, including in the interim period, with the sharpest increase coming from 1988 to 1989.[36] The record thus shows an industry with rising productivity and wages on the one hand and declining employment on the other.

We next turn to the financial data of the domestic industry. Because of the significant conditions affecting competition in this industry (tolling and the decline in the cost of the intermediate products), relying on the reported data by value (e.g., net sales) as an indicator of the condition of the industry could be misleading. Accordingly, we have analyzed the financial data in percentage terms.

In addition, the data for one company were not consistently calculated over the period of investigation because of a change, unrelated to imports, in its accounting method. This change affected the presentation of operating income trends for both this company and the entire industry.[37] [38] If we exclude the information for this company from the financial data, the operating income margins for the industry increase significantly from 1988 to 1990, with a slight decline in interim 1991 compared

---

[36] Report at A-30, table 13.
[37] Report at A-31.
[38] We note that the selling, general and administrative expenses increased generally in this industry for reasons unrelated to imports. Report at A-32.

to interim 1990.[39] Even if the company's data are included, the data for the domestic industry as a whole continued to show positive operating income margins.[40] [41]

As noted above, we find significant in our analysis the decline in the apparent cost of the intermediate products. Evidence on the record indicates that the price of the intermediate products fell throughout the period of investigation.[42] In fact, the actual cost of goods sold fell faster than net sales, contributing to a higher operating income margin.[43]

Petitioner argued that the decline in cash flow resulted in a decline in capital investment and was indicative of material injury.[44] Cash flow and capital expenditures both fluctuated on parallel tracks, rising from 1988 to 1989 and then declining in 1990. Both trends continued downward in interim 1991 compared to interim 1990.[45] We note, however, that end-of-period capacity has exceeded total consumption since 1989, and average-of-period capacity has exceeded total consumption since 1990.[46] We believe

---

[39] Report at A-31.
[40] Report at A-32, table 14.
[41] Chairman Newquist and Commissioner Rohr conclude that whether that company's data is included or excluded from the aggregate financial data, the overall financial picture of this industry is not indicative of material injury.
[42] See e.g., Report at Appendix H, B-32, Petitioners' Posthearing Brief at 7.
[43] See Report at table 14, A-32.
[44] Petitioners' Prehearing Brief at 12.
[45] Report at A-35, table 19. We note that research and development, by contrast, rose dramatically in interim 1991 compared to interim 1990, following declines in 1988 to 1990. Report at A-33.
[46] Report at A-21, table 6.

that a decline in capital expenditures is consistent with an industry that has over-expanded its production capacity in excess of consumption.

III. No Material Injury by Reason of LTFV Imports[47]

In determining whether the domestic industry is materially injured by reason of imports, the statute directs the Commission to consider:

> (I) the volume of imports of the merchandise which is the subject of the investigation,
> (II) the effect of imports of that merchandise on prices in the United States for like products, and
> (III) the impact of imports of such merchandise on domestic producers of like products, but only in the context of production operations within the United States . . .[48]

In addition, the Commission may consider "such other economic factors as are relevant to the determination."[49] For the reasons discussed below, we find that there is no material injury by reason of dumped imports of refined antimony trioxide from the People's Republic of China.

Imports of refined antimony trioxide from the PRC declined over the period of investigation, both in terms of volume and

---

[47] Based on their examination of the record concerning the condition of the domestic industry, particularly in light of the important changes affecting the conditions of competition in this industry during the period of investigation, Chairman Newquist and Commissioner Rohr find that the domestic industry producing refined antimony trioxide is not materially injured. Finding no material injury, they find it unnecessary to consider the issue of causation and therefore do not join this section of these views, moving instead directly to consideration of the threat of material injury. See e.g., American Spring Wire Corp. v. United States, 590 F. Supp. 1283 (CIT 1984), aff'd sub. nom Armco, Inc. v. United States, 760 F.2d 249 (Fed. Cir. 1985).

[48] 19 U.S.C. § 1677(7)(B)(i).

[49] 19 U.S.C. § 1677(7)(B)(ii).

value.[50] [51] The market share of the imports by quantity generally remained steady, declining slightly from 13.1 percent in 1988 to 12.3 percent in 1990 and rising slightly from 13.2 percent in interim 1990 to 13.5 percent in interim 1991.[52] [53] Shipments of non-subject imports declined from 3.5 million pounds in 1988 to 2.8 million pounds in 1990, evidencing a decline from 6.3 percent to 4.9 percent of total domestic consumption. This decline continued into interim 1991, with a decline from 2.0 million pounds in interim 1990 to 1.7 million pounds in interim 1991, and a decline in market share from 4.9 percent to 4.3 percent,

---

[50] The Commission, in this investigation, has relied on import data compiled from importers' questionnaires. The imports reported in the questionnaire we believe account for nearly all imports of refined antimony trioxide from the PRC. The official import data included imports of crude antimony trioxide which are not subject to this investigation. Because the Commission found the questionnaire data to be the more reliable of the two sets of data, we have relied on that data. See Report at A-41, n.43. In addition, petitioners argued that refined antimony trioxide was being transshipped through Hong Kong and therefore the Commission should consider Hong Kong imports in the import data. The staff has been able to verify that all imports of refined antimony trioxide from Hong Kong have been identified by the importers as having been manufactured in the PRC. Indeed, the United States Customs Service has suspended liquidation and is collecting a cash bond on imports of refined antimony trioxide from Hong Kong. Report at A-42, table 22, nn. 2 & 3. We therefore rely on import data including imports from Hong Kong as well as the PRC. See Sparklers from the People's Republic of China, Inv. No. 731-TA-464 (Final), USITC Pub. 2387 (June 1991) at 13, n. 42.

[51] Report at A-42, table 22. Shipments of refined antimony trioxide from the PRC also declined over the period of investigation. Report at A-44, table 24.

[52] Report at A-44, table 24.

[53] Vice-Chairman Brunsdale, Commissioner Crawford and Commissioner Watson are careful not to draw any conclusions about the full year based on interim data. For example, in 1990 the interim import market share was 13.2 percent, whereas the full year 1990 import market share was 12.3 percent.

respectively.[54]

As all imports declined, domestic producers' shipments and market share, measured in terms of quantity, rose from 1988 to 1990.[55] Domestic producers accounted for 80.6 percent of the domestic market in 1988 and 82.8 percent in 1990. Domestic market share remained relatively stable during the 199Q and 1991 interim periods.[56] We find it especially noteworthy that, notwithstanding the lower price of the Chinese products, domestic producers were able to increase their share of the U.S. market during the period of investigation.

In considering the effect of dumped imports on domestic prices and domestic producers, we believe that an important consideration in this investigation is the substitutability of the imported and domestic products. If the domestic product, subject imports, and non-subject imports[57] are close substitutes, customers are more likely to switch in response to a change in their relative prices. Therefore, the relative substitutability of the products will affect the volume of domestic production lost to subject imports.

In this investigation we find limited substitutability

---

[54] Id.
[55] As explained above, we gave greater consideration to the quantity data than to the value of domestic producers' shipments because of the effects of tolling on the value data.
[56] Report at A-44, table 24.
[57] Confidential questionnaire data indicates that non-subject imports are generally higher quality than the subject imports. See also, Report at A-13, table 3.

between the U.S. and Chinese refined antimony trioxide.[58] The Commission divided the domestic refined antimony trioxide market into five "grades" for the purposes of this investigation: ultra-pure, ultra-fine, low-tint, high-tint and generic.[59] Respondents argued that the market was more appropriately divided into two tiers: a high tier including the ultra-pure, ultra-fine, low-tint grades as well as a significant portion of the high-tint market, and a low-tier, including a small portion of the high-tint market and generic grade.[60] Respondents export a single grade of refined antimony trioxide to the United States -- grade 0 -- which they claim can compete only in the lower tier of the market. In fact, the data show that there have been no shipments of the Chinese product in the ultra-fine and ultra-

---

[58] In considering substitutability, we look at a number of elements. In this investigation, there are numerous quality considerations that distinguish the domestic from the imported product. The majority of U.S. producers and importers indicated that the U.S. product tended to be more consistent in color, particle size, and purity than the imported product. Report at A-7. Inconsistent particle size and distribution can affect the color and the physical strength of the end product. Transcript of the Commission's Hearing, February 25, 1992, (Tr.) at 93. Impurities can adversely affect electrical properties when the product is used in electronics components. Report at A-6. The Chinese product, by respondents' admission, is of a lower quality because of inconsistent particle size and distribution and impurities such as arsenic. Tr. at 93. In addition, due to the proximity of the domestic producers to many of their customers, they can work together more closely to make a product to the customer's specifications. Transcript of the Commission's Preliminary Conference, May 16, 1991, at 70. Purchasers have also cited superior, or at least more consistent packaging, accurate product weights, reliable delivery and product support and service as reasons for preferring the domestically manufactured product. Report at A-48.

[59] Report at A-5.

[60] Respondents' Prehearing Brief at 13-18.

pure grades, and only very few shipments of the low-tint grade, starting in 1990.[61] For quality reasons, therefore, the Chinese product generally does not compete in approximately 10 percent of the market.

Even in that sector of the market in which the Chinese product does compete, the domestic product generally is recognized as superior and more consistent than the imported product.[62] At least one large end user reported that the imported product was not suitable for its specifications.[63] Other end users reported that they would not use the imported product, or would use it only for certain applications, because of quality considerations.[64] Some purchasers who submitted questionnaires to the Commission, in fact, indicated a willingness to pay a premium for the domestic product because of the higher quality.[65] Even some purchasers who considered the imported product comparable did not in fact use it for the same applications as the domestic product, or were willing to pay a premium to ensure a domestic source of supply.[66]

Prices of the non-toll domestic product declined during the period of investigation. [67] We collected price data for three

---

[61] Report at A-13, table 3.
[62] Report at A-7, A-48.
[63] Id. at A-48.
[64] See Report at A-70 to 71.
[65] Id. at A-49.
[66] See Report at A-49.
[67] Vice Chairman Brunsdale and Commissioner Crawford do not view this pricing data as very reliable. The price data reflects the largest quarterly sales which do not necessarily reflect the general pricing structure of the entire industry. As the (continued...)

grades of refined antimony trioxide: low-tint, high-tint and generic.[68] The price declines for all three products were comparable. Coincident with those declines, costs for the intermediate products fell, as did the price of the subject imports. The fact that the price decline of low-tint refined antimony trioxide -- of which there were very few imports -- was comparable to the price declines of the other grades of non-toll domestic product suggests that subject imports did not cause domestic price declines.

Although there is evidence of underselling in the record, price does not appear to be the decisive factor for many purchasers in this market.[69] The perceived and actual

---

[67] (...continued)
information in tables 25 through 31 constitutes what is available to the Commission, we nevertheless rely on it for our analysis.

[68] See Report at A-50 to A-62.

[69] Certain factors in this investigation lead us to limit our reliance on comparisons between the prices for imports and domestic products for purposes of adducing a causal nexus between imports and the condition of the domestic industry. First, the vast majority of sales of the domestic product are high-volume sales to end-users, whereas most imports are sold in various amounts to distributors, with a smaller proportion of sales of relatively small volumes to end-users. Report at A-29. Domestic producers and importers alike generally charged a sharply higher price for very small orders. Pricing data for the various grades were reported on the basis of the largest quarterly sales in each channel of distribution. Report at A-51, A-52. Thus, unqualified comparisons of domestic producers' and importers' sales to distributors or end-users could overstate the significance of differences in prices because of the differences in volumes.

Second, as noted above, the Chinese sell a single grade into the U.S. market. Although import prices were reported for generic and high-tint grades of refined antimony trioxide, the record indicates that purchasers may have perceived high-tint Chinese antimony as generic and vice versa. Thus, even price comparisons of the same grade may be problematic.

differences in quality between the domestic product and the subject imports mean that although price is a major factor, the lowest price does not always win the sale.[70] Moreover, the limitations on the pricing data in this investigation suggest that we should be careful to avoid overstating the significance of underselling. Nevertheless, even if we were to assume that the data in the record gives an accurate reflection of underselling in this market, the fact remains that the volume of imports has continued to decline, both absolutely and, apart from a minimal increase in the interim period, as a share of domestic consumption, while domestic producers' market share has increased.

As previously noted, both import prices and shipments of imports declined as domestic shipments increased during the period of investigation.[71] Declining import prices have not resulted in an increasing market share for the subject imports compared with the higher quality and higher priced domestic product.[72] The willingness of purchasers to pay a premium for the domestic product indicates that lower-priced imports are not attractive to significant portions of domestic consumers.

Furthermore, the presence of excess domestic production capacity in a competitive market, with non-subject imports, demonstrates the absence of price suppression.[73] [74] Had the

---

[70] Report at A-65.
[71] Report at A-60 to A-61, tables 29-31.
[72] Report at A-44, table 24.
[73] Report at A-21, table 6. Commissioner Nuzum does not join in
(continued...)

Chinese product been fairly traded, it is unlikely that U.S. producers could have raised prices. Rather, in light of the competitiveness in the market and excess capacity, production would have increased to meet any increased demand for the domestic product.

The weighted-average dumping margin in this case is 33 percent.[75] [76] The dumped imports held a small share of the domestic market and that share did not increase during the period of investigation.[77] Both the quantity and value of the subject imports declined significantly during the period of investigation. As discussed above, non-price factors (such as quality, reliability, delivery time and multiple sourcing), had a significant influence on purchasing decisions apart from the dumping. For those customers for whom price is the determining

---

[73] (...continued)
this discussion concerning the implications of excess domestic production capacity and what results might have occurred in the absence of dumping.

[74] Report at A-42, table 22.

[75] Commissioner Nuzum does not join in the discussion concerning the significance of the average weighted dumping margins and what results might have occurred in the absence of dumping.

[76] The dumping margin for the producer CHINA MINMETALS was 80.64 percent and the margin for CNIEC was 13.05 percent. On average, the dumping margin was 33 percent. 57 Fed. Reg. 6801 (Feb. 28, 1992). While CHINA MINMETALS would not have sold any refined antimony trioxide at "fair value," CNIEC would likely have been present in the domestic market even if its products were sold at "fair value."

[77] The market share that is properly used in the analysis is based on value. As mentioned above, discrepancies in the data cause the import market share based on value to be biased upward. However, the Office of Investigations estimated the market share of imports based on value to be 8.5 percent from October 1990 to September, 1991. See Memo by International Economist, INV-P-046, March 30, 1992.

factor, had the subject imports not been dumped but continued to be sold below the price of the domestic product, the subject imports would have continued to be present in the domestic market.[78] To the extent that elimination of the dumping would have diverted sales away from the subject imports, and, given that non-subject imports compete with subject imports in some grades,[79] customers would not necessarily have shifted all purchases to the higher quality U.S. product, but also may have purchased other fairly traded imports. Based on our analysis of the impact of these non-price factors, we conclude that the state of the domestic industry would not have been significantly different even if the subject imports were fairly traded.

Based on our overall analysis of the record, the volume of subject imports, the effect of subject imports on domestic prices and the impact of subject imports on domestic producers, we conclude that there is no material injury to a U.S. industry by reason of dumped imports.

IV. Threat of Material Injury

If the Commission finds no present material injury by reason of the subject imports, it then considers whether there is a threat of material injury to the domestic industry by reason of dumped imports. The statute requires that any "threat of material injury [be] real and that actual injury [be] imminent,"[80] and that the determination not be based on mere

---

[78] Report at A-12, table 2.
[79] Report at A-13, table 3.
[80] 19 U.S.C. § 1677(7)(F)(ii).

conjecture or supposition.[81]

The statute directs the Commission to consider a number of specific factors in its analysis of threat of material injury.[82] In antidumping investigations, the Commission must also consider whether dumping findings or antidumping remedies in third country markets against the same class of merchandise suggest a threat of

---

[81] Id.

[82] 19 U.S.C. § 1673d(b)(1). Those factors include:

> (I) * * *
> (II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,
> (III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,
> (IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,
> (V) any substantial increase in inventories of the merchandise in the United States,
> (VI) the presence of underutilized capacity for producing the merchandise in the exporting country,
> (VII) any other demonstrable adverse trends that indicate probability that importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,
> (VIII) the potential for product shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 1671 or 1673 of this title or to final orders under section 1671e or 1673e of this title, are also used to produce the merchandise under investigation,
> (IX) * * *
> (X) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product.

19 U.S.C. § 1677(7)(F)(i).

material injury to the domestic industry.[83] We consider the applicable statutory threat factors in turn.[84]

The Commission in the past has characterized the issue of threat as whether the foreign industry has both the ability and the incentive to increase exports to the United States in such quantities and at such prices as to cause material injury.[85] While there is minimal evidence to suggest a finding of threat in this investigation, we find that overall the evidence shows insufficient ability and incentive on the part of Chinese producers to increase their exports to the United States to rise to the level of an imminent threat of real injury.

First, with regard to existing unused or under-utilized foreign production capacity,[86] we note that although the relevant information is confidential, the record indicates that underutilized capacity exists in the PRC.[87] Record evidence suggests, however, that full capacity utilization in the PRC is not likely to increase significantly the U.S. market share of the

---

[83] See 19 U.S.C. section 1677(7)(F)(iii), as amended by 1988 Act section 1329.

[84] Two factors do not apply to this investigation. The first factor, concerning subsidies, and the ninth factor, concerning agricultural products, are not relevant to the facts of this case and will not be considered. Citrosuco Paulista v. United States, 708 F. Supp. 1333 (CIT 1988)(Commission must consider each of the threat factors but is not required to discuss each threat of injury factor.)

[85] Republic Steel Corp. v. United States, 591 F. Supp. 640, 650 (CIT 1984)(The "essence of the threat lies in the ability and incentive to act imminently."); Metallverken Nederland B. V. v. United States, 744 F. Supp. 281, 287 (CIT 1990).

[86] 19 U.S.C. § 1677(7)(F)(i)(II) & (VI).

[87] Report at A-40, table 21.

subject imports.[88]

Next we examine the probability that imports will increase rapidly and that import penetration will rise to an injurious level.[89] Imports of refined antimony trioxide from both the PRC and Hong Kong,[90] in quantity as well as value, declined steadily over the period of the investigation, including interim 1991 compared with interim 1990.[91] The imported products' share of domestic consumption by quantity remained fairly constant over the period of investigation.[92]

Evidence on the record shows that exports of refined antimony trioxide from China are limited due to Government export quotas.[93] In addition, both Chinese exporting companies have long term contracts with purchasers in other countries thereby reducing the likelihood of any diversion of refined antimony trioxide to the United States.[94] We also note that the exclusion of the Chinese product from parts of the market due to quality problems hampers the respondents' ability to penetrate rapidly the U.S. market in the near term. Thus, evidence on the record

---

[88] Report at A-40.
[89] 19 U.S.C. § 1677(7)(F)(i)(III).
[90] As explained above, the Commission has relied on aggregate data of imports from both the PRC and Hong Kong. See Report at A-42, table 22, nn. 2 & 3.
[91] Report at A-42, table 22.
[92] The market penetration of the imports from the PRC and Hong Kong increased from 13.1 percent in 1988 to 13.8 in 1989 but then fell to 12.3 percent in 1990. In the first nine months of 1990, Chinese refined antimony trioxide represented 13.2 percent of total consumption and rose to only 13.5 for the first nine months of 1991. Report at A-44, table 24.
[93] Respondents' Prehearing Brief at 46; Respondents' Posthearing Brief at 23; See also Report at A-40.
[94] Respondents' Posthearing Brief at 34.

of limitations on both the supply of exports from the PRC and demand for the subject imports in the United States leads us to conclude that Chinese exports of refined antimony trioxide are unlikely to increase rapidly to an injurious level.

The Commission also must assess the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise.[95] As previously noted, imports of the subject merchandise were generally lower-priced than comparable domestically-produced products. However, the domestic price of low-tint refined antimony trioxide, for which there were few competing imports from the PRC, declined at a rate comparable to the domestic prices declines of high-tint and generic refined antimony trioxide with which imports competed.[96] Moreover, as already noted, the decline in raw material prices and increase in toll production contributed to the overall decline in reported prices. In light of these factors, we are not persuaded that any depressing or suppressing effect on domestic prices rises to the level of an imminent threat of actual injury.

The Commission must also consider any substantial increase in inventories of the imported product in the United States that might easily enter the domestic market in the near future.[97] In this case, importers' inventories have generally declined over the period of investigation and at no time represented more than

---

[95] 19 U.S.C. § 1677(7)(F)(i)(IV).
[96] See Report at A-54 to A-55, tables 25-27.
[97] 19 U.S.C. § 1677(7)(F)(i)(IV).

5 percent of total domestic consumption.[98]

As to the potential for product shifting by foreign manufacturers, we find that in light of the specialized machinery used for producing refined antimony trioxide, the potential for product shifting from other products subject to investigation or an outstanding antidumping order to the production of refined antimony trioxide is severely limited.[99]

We also have considered whether the subject imports will have any actual or potential negative effects on development and production efforts.[100] As discussed above, domestic producers have already expanded their production capability beyond what the domestic market consumes.[101] Further, research and development expenditures increased sharply during interim 1991 compared to interim 1990.[102] In light of the foregoing, the record provides no indication that imports will adversely affect future research and development efforts.

The Commission is also directed to consider "whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other GATT member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a

---

[98] Compare Report at A-38, table 20 and A-12, table 2..
[99] 19 U.S.C. § 1677(7)(F)(i)(VIII). Report at A-39. We also note that no one raised allegations of any likelihood of product shifting.
[100] 19 U.S.C. § 1677(7)(F)(i)(X).
[101] Compare, Report at A-44, table 24 and A-21, table 6.
[102] Report at A-33.

threat of material injury to the domestic industry."[103] An antidumping case has been initiated in the European Community against refined antimony trioxide from the PRC which petitioners contend will divert exports to the United States.[104] The statute directs the Commission, however, to consider whether affirmative findings of dumping or antidumping remedies, not merely investigations, are evidence of a threat of material injury.[105] The initiation of the investigation therefore does not meet the standard required by 19 U.S.C. § 1677(7)(F)(iii)(I).[106]

We recognize that there may be circumstances in which the filing, or pending, of numerous cases in third countries could have an effect on trade patterns. In this case, however, there is no evidence in the record that this single filing has had such an effect. We note, however, that the initiation of the EC antidumping investigation is very recent and it is unclear at this time whether the pursuit of that investigation would result in a diversion of Chinese exports to the United States. If, in fact, such developments were to occur, that would present a different set of circumstances under a threat analysis.

Chairman Newquist and Commissioners Rohr and Nuzum, based on the record in this investigation, conclude that imports of

---

[103] 19 U.S.C. § 1677(7)(F)(iii)(I)(emphasis added).
[104] Petitioners' Prehearing Brief at 41-42.
[105] 19 U.S.C. § 1677(7)(F)(iii)(I).
[106] Vice Chairman Brunsdale and Commissioner Crawford concur that the evidentiary standard of the statute (an antidumping finding or remedy) has not been met, and conclude that further inquiry into the effect of allegations of dumping in third country markets is unwarranted.

refined antimony trioxide do not, at this time, pose an imminent threat of material injury to the domestic industry.

Based on the record in this investigation, Vice-Chairman Brunsdale and Commissioners Crawford and Watson conclude that imports of refined antimony trioxide do not pose an imminent threat of material injury to the domestic industry.

INFORMATION OBTAINED IN THE INVESTIGATION

INTRODUCTION

Institution

Following a preliminary determination by the U.S. Department of Commerce that imports of refined antimony trioxide[1] from the People's Republic of China are being, or are likely to be, sold in the United States at less than fair value (LTFV) (56 F.R. 50849, October 9, 1991, revised November 5, 1991, 56 F.R. 56496), the U.S. International Trade Commission instituted investigation No. 731-TA-517 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) to determine whether 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. Notice of the institution of the Commission's investigation and of a public hearing to be held in connection therewith was posted in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and published in the Federal Register on October 23, 1991 (56 F.R. 54887). Subsequent to Commerce's postponement of its final LTFV determination (56 F.R. 56631, November 6, 1991), the Commission revised its schedule to conform with Commerce's new schedule (56 F.R. 63524, December 4, 1991). Copies of the Commission's notices are presented in appendix A. The hearing was held in Washington, DC, on February 25, 1992. A list of participants in the hearing is presented in appendix B.

In its final determination, as published in the Federal Register on February 28, 1992 (57 F.R. 6801), Commerce determined that imports of refined antimony trioxide from China are being, or are likely to be, sold in the United States at LTFV. Commerce's Federal Register notice is presented in appendix C. The applicable statute directs that the Commission make its final determination within 120 days after an affirmative preliminary determination by Commerce or 45 days after an affirmative final determination by Commerce (whichever is later), or in this case by April 6, 1992. The Commission voted on this investigation on March 31, 1992.

Background

This investigation results from a petition filed by the Coalition for Fair Trade in Refined Antimony Trioxide on April 25, 1991, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of refined antimony trioxide from

---

[1] For purposes of this investigation, refined antimony trioxide (also known as antimony oxide) is defined as a crystalline powder with the chemical formula Sb_2O_3, provided for in subheading 2825.80.00 of the Harmonized Tariff Schedule of the United States (HTS). The subject refined antimony trioxide includes blends with organic or inorganic additives comprising 20 percent or less of the blend by volume or weight. Crude antimony trioxide (antimony trioxide having less than 98 percent Sb_2O_3) is excluded.

the People's Republic of China.[2] In response to that petition the Commission instituted investigation No. 731-TA-517 (Preliminary) under section 733 of the Tariff Act of 1930 (19 U.S.C § 1673b(a)), and on June 10, 1991, determined that there was a reasonable indication of threat of material injury. Refined antimony trioxide and related antimony oxides have not been the subject of prior Commission investigations.

THE PRODUCT

Description and uses

Refined antimony trioxide (also known as antimony oxide) is a crystalline powder with the chemical formula Sb_2O_3. The subject refined antimony trioxide includes blends with organic or inorganic additives comprising 20 percent or less of the blend by volume or weight.[3]

Crude antimony trioxide (antimony trioxide having less than 98 percent Sb_2O_3) is excluded from the scope of the investigation as defined by Commerce. Crude antimony trioxide is distinguished from refined antimony trioxide in several ways. The impurities, such as silica, iron, copper, lead, arsenic, and sulfur, that may be present in the crude grade are present in only insignificant concentrations in the refined grade. Refined antimony trioxide also differs from crude antimony trioxide in that the particle size distribution of refined antimony trioxide (usually between 0.2 and 3.5 microns) is controlled so as to impart the desired tint to a finished product. In addition, crude antimony trioxide is seldom sold directly to end users; the basic use of the crude antimony trioxide is as a raw material in the production of refined antimony trioxide and other antimony products.[4] ***.

Refined antimony trioxide is used principally as a flame retardant for plastics, paints, rubber, and textiles in association with a synergistic agent, which is typically a chemical, usually an organic polymer, containing chlorine or bromine atoms. When antimony trioxide is on a substrate that contains the synergistic agent, it, in conjunction with the synergistic agent,

---

[2] The individual member firms comprising the coalition consist of: (1) Anzon, Inc., Philadelphia, PA; (2) Atochem North America, Inc., Philadelphia, PA; (3) Laurel Industries, Inc., Cleveland, OH; (4) United States Antimony Corp., Thompson Falls, MT; and (5) United States Antimony Sales Corp., Natick, MA. United States Antimony Sales Corp. is not a producer of refined antimony trioxide. Rather, it markets the product produced by United States Antimony Corp.

[3] Less than 5 percent of the production of refined antimony trioxide is blended with a wetting agent and plasticizer to impart desirable mechanical properties and to prevent dusting.

[4] *** is aware of *** sales by *** of its imported crude antimony trioxide to end users (respondent's brief in the preliminary investigation, pp. 7-8 and exhibit 2). However, these sales, which were made over a *** period, appear to be isolated instances. In a telephone interview with staff, *** indicated that the customers who purchased the crude grade ***. *** estimates that about *** percent of the market for antimony trioxide ***.

will absorb heat from a flame, thereby making the material covered by the flame retardant difficult to ignite. Antimony trioxide flame retardants are used in a host of applications, including materials used in transportation, construction, and electrical applications. Many of these materials would be too flammable to be commercially useful were flame retardants such as antimony trioxide not available. As indicated in table 1, the use of refined antimony trioxide as a flame retardant accounted for 95 percent of all its known end-use applications in 1990. Plastics of all types accounted for 66 percent of the flame retardant market; uses for such plastics include wire and cable insulation, roofing, wall coverings, television and computer cabinets, furniture, and plastic automobile components.

Refined antimony trioxide is also used in applications other than flame retardants. One of the most important of these other applications involves its use as a fining agent and opacifier for glass and ceramics. In colored lenses and optical fibers, refined antimony trioxide acts as a fining agent to intensify color, whereas in ceramic applications it is used as an opacifying pigment. Responses to the Commission's questionnaire indicated that glass and ceramic applications accounted for about 3 percent of the known end uses for refined antimony trioxide. Another application of refined antimony trioxide is its use as a chemical intermediate to manufacture plastics stabilizers and catalysts, which are in turn used in the manufacture of plastics and the refining of petroleum.

The tinting strength is an important physical property of refined antimony trioxide. It determines the whitening effect that refined antimony trioxide will impart to the final product. In general, the tinting strength of refined antimony trioxide decreases when the average particle size is large, e.g., 2 microns or larger, or very small, e.g., 0.1 microns or smaller. Most of the antimony trioxide that is sold commercially is about 1 micron in size.

Although there are no standardized industry-wide grades, there appears to be general agreement that there are at least five grades which refined antimony trioxide consumers require: high-tint, low-tint, ultra-fine, ultra-pure, and generic grades. The grades differ depending on the degree of purity and the particle size distribution. The high-tint, low-tint, and ultra-fine grades all have an antimony trioxide content ranging from 99.2 to 99.7 percent. The differentiating factor among the three grades is the particle size distribution. The low-tint grade has the largest average particle size, 1.8 to 3.5 microns, and therefore has the least effect on pigmentation. The low-tint grade is used mainly in applications where tinting is not desired and the cost of the product pigment is high. The high-tint grade has an average particle size ranging from 1.0 micron up to, but not including, 1.8 microns. Because of the smaller particle size, the high-tint grade has a higher tinting strength and a less degrading effect on the physical properties of plastics. The ultra-fine grade, with an average particle size between 0.2 and 0.9 microns, is used mainly in electronics where thin fire retardant coatings on electrical and optical wires and cables are required. All three grades have the same flame retardant properties but are distinguished by their different effects on the pigmentation and physical properties of the product in which they are used.

Table 1
Refined antimony trioxide: U.S. shipments[1] by end-use applications, 1990

(In 1,000 pounds)

End-use applications	U.S. shipments in 1990	Share of U.S. shipments (percent)
Flame retardant applications:		
Plastics:		
Polyvinyl chloride	9,446	37.3
Styrenics	4,352	17.2
Other plastics	2,067	8.2
Subtotal	15,865	62.6
Rubber products	790	3.1
Electronics	6,020	23.8
Paints/pigments	132	0.5
Textiles	1,131	4.5
Other	11	(2)
Total flame retardant applications	23,949	94.5
Glass/ceramic applications	718	2.8
Chemical intermediate applications	322	1.3
Other	353	1.4
Total known end-use applications	25,342	100.0

[1] The data in the table are for 2 producers accounting for *** percent of producers' U.S. shipments and 10 importers accounting for 14 percent of importers' U.S. shipments of refined antimony trioxide in 1990. Because 82 percent of the Chinese imports of refined antimony trioxide was sold to unrelated distributors, the majority of importers were unaware of end-use applications.

[2] Less than 0.05 percent.

Note.--Because of rounding, figures may not add to the totals shown.

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

Highest in antimony trioxide content, the ultra-pure grade (approximately 99.8 percent Sb_2O_3, with average particle size between 0.2 and 1.8 microns) is used as a catalyst in the manufacture of fibers and films. The ultra-pure grade is also used to a limited extent in very high quality electronic components where trace amounts of impurities can adversely affect electrical properties.

The generic grade has a purity level ranging from 99.2 to 99.7 percent and mixed particle sizes generally ranging from 1.0 to 2.0 microns. The generic grade is used in applications where the main criteria is the antimony value and not the particle size or particle distribution. Since inconsistent particle size and distribution weaken the physical properties of plastics

products and cause discoloring in certain end-use applications, the generic grade is used mainly in textile, ceramic, and glass products.

The refined grades of antimony trioxide that are sold commercially also differ in the type of blending additives, resulting in grades that have differing mechanical properties and viscosities. The blending agents impart desirable mechanical properties to the antimony trioxide and prevent dusting. Commonly used blending agents include ethylene glycol, liquid chlorinated paraffin, mineral oil, or a liquid vinyl plasticizer. Dry refined antimony trioxide, i.e., not containing any blending agents, is also sold commercially and is believed to represent most of the refined antimony trioxide imported from China.

In response to the Commission's questionnaire, the majority of U.S. producers and importers indicated that the refined antimony trioxide produced in the United States was generally of a higher or more consistent quality than that produced in China. According to the responses, the U.S. product tended to be more consistent in color, particle size, and purity than the product manufactured in China. The purchaser questionnaire responses were more mixed regarding the relative quality of the U.S. product as compared to the imported Chinese product. For a more complete discussion of quality issues, see the price section.

Production Processes

Refined antimony trioxide is generally not made directly from antimony ore but instead is usually made from an intermediate, e.g., antimony sulfide concentrate, antimony metal, or crude antimony trioxide. In the United States, the producers generally do not convert the ores into intermediates themselves; rather, they purchase the intermediates from foreign suppliers.[5]

---

[5] The method by which intermediates are processed from ores depends largely on the antimony content of the ore. The lowest grades of sulfide ores, 5 to 25 percent antimony, are roasted to form crude antimony trioxide. In this method, the sulfur is oxidized and removed from waste gases while the volatile crude antimony trioxide is recovered in flues, condensing pipes, and baghouses. The crude antimony trioxide can also be used for converting into antimony metal.

Intermediate grades of sulfide ores, containing 25 to 40 percent antimony, are smelted in a blast furnace to produce antimony metal. This method employs a high smelting column with low air pressure and separates the slag and antimony metal in a hearth.

Antimony sulfide concentrate can be extracted from rich sulfide ores (containing 45 to 60 percent antimony) by heating in a reverberating furnace. A reducing atmosphere is kept to prevent oxidation. The solidified product is called liquidated or needle antimony and may be used as an antimony sulfide concentrate or converted to antimony metal.

The processes and materials discussed above are typical. However, other processes and materials not cited in this footnote may also be used.

Currently, there is no significant production of mined antimony ore in the United States.[6]

The domestic industry employs several different production methods for converting purchased antimony intermediates into refined antimony trioxide. One method utilizes antimony sulfide concentrates as the intermediate. These concentrates are either converted to antimony metal in a reduction furnace or to crude antimony trioxide in a blast furnace. The antimony metal and crude oxide are subsequently converted into refined antimony trioxide. The majority of the U.S. producers, however, purchase antimony metal and/or crude oxide to convert directly to refined antimony trioxide. Refined antimony trioxide is produced from antimony metal in an oxidation furnace and from crude antimony trioxide in a rotary furnace. The antimony intermediates are oxidized in air at temperatures of 600° to 800° Celsius. The antimony trioxide is then vaporized and air-cooled to obtain a precipitate of refined antimony trioxide of the desired particle size distribution. In general, the more rapid the cooling, the smaller the average size of the particles. Ultra-fine antimony trioxide particles are produced by very rapidly condensing and diluting the antimony trioxide. Ultra-pure grades are produced by using relatively high-purity starting materials and by carefully controlling the vaporization temperature. Generally, by using a lower vaporization temperature, a higher proportion of impurities do not vaporize with the antimony trioxide, resulting in a purer product. The antimony trioxide is then filtered in flues, condensing pipes, and baghouses to obtain a product that is ready to be sold. The U.S. producers have noted in the Commission's questionnaire that the production of the different grades requires no shifting of employees or equipment. Adjusting the equipment to produce a different product grade results in virtually no loss in production.

Each domestic producer has the technology and equipment to produce refined antimony trioxide from at least two of the three intermediate products. Therefore, the cost and availability of the raw material is the decisive factor in determining the production process used.[7]

In response to the question in the Commission's questionnaire on whether each firm produced products other than refined antimony trioxide on the same equipment and machinery used in the production of refined antimony trioxide, seven firms (accounting for 100 percent of domestic production in 1990) answered "No."

---

[6] Two U.S. companies are known to mine and process antimony ore. Asarco's Omaha, NE, plant (where refined antimony trioxide is produced) receives its feed from the Asarco Lead plant in East Helena, MT, which receives a portion of its feed material from company-owned mines in the Montana and Idaho area. Sunshine Mining Co., of Kellogg, ID, produces antimony as a byproduct from the treatment of tetrahedrite, a complex silver-copper-antimony sulfide ore, in the Coeur d'Alene district of northern Idaho.

[7] The primary raw materials used by each U.S. producer in the calendar year 1990 were reported as follows: ***.

Substitute Products

There are a number of inorganic and organic chemicals other than refined antimony trioxide that can be used as fire retardants, including alumina trihydrate, zinc borate, magnesium hydroxide, zinc stannate, zinc hydroxystannate, and a variety of chlorinated, brominated, and phosphorus compounds. Zinc borate, in particular, is both a fire retardant and a smoke suppressant, which refined antimony trioxide is not. Rather than using zinc borate alone, which is relatively expensive, it is more cost effective to use the zinc borate with refined antimony trioxide since the two agents together act both as a flame retardant and as a smoke suppressant. In response to the Commission's questionnaire, the U.S. producers, importers and purchasers overwhelmingly agreed that potential substitutes are not replacing refined antimony trioxide. All the potential substitutes are significantly more expensive than antimony trioxide on a cost/performance basis, or they have technical problems that must be overcome before they can be used as a substitute. ***.

U.S. Tariff Treatment

Refined antimony trioxide is classified in Harmonized Tariff Schedule of the United States (HTS) subheading 2825.80.00, a provision covering antimony oxides. In addition to refined antimony trioxide, this subheading includes crude antimony trioxide as well as antimony pentoxide and antimony tetroxide. (Antimony pentoxide and antimony tetroxide are much less commercially important than are the antimony trioxides.) The subheading does not include antimony ores, but does cover antimony oxides containing inert additives or blending agents including antidusting agents, stabilizers, and inert solvents. Imports from countries eligible for most-favored-nation (MFN) treatment, including China, that are classifiable in HTS subheading 2825.80.00 enter the United States free of duty.

The Nature and Extent of Sales at LTFV

On the basis of comparisons of U.S. price (USP) and foreign market value (FMV), Commerce determined on February 28, 1992, that imports of refined antimony trioxide from China are being, or are likely to be, sold in the United States at LTFV. Commerce valued China's factors of production mainly on the production of the subject merchandise in Bolivia. To value antimony concentrate (according to Commerce the main input into refined antimony trioxide), Commerce used the London Metals Bulletin ("LMB") prices for Bolivian-origin antimony concentrate. For other materials, labor and energy, Commerce used Bolivian values where they were available. Where Bolivian values were not available, i.e., for coke, soft coal, and inland freight, Commerce used Thai values.

For one refinery, Stibium, Commerce was not able to verify the conversion factor for the blast furnace of the production process. Consequently, Commerce used information in the petition as best information available for the factors of production in this stage of Stibium's production process.

The investigation involved China National Nonferrous Metals Import and Export Corp. (CNIEC) and China National Metals and Minerals Import and Export Corp. (China Minmetals), exporters of the subject merchandise.

Pursuant to its final determination, Commerce directed the U.S. Customs Service, under section 733(d)(1) of the act, to continue to suspend liquidation of all entries of refined antimony trioxide from China that are entered, or withdrawn from warehouse, for consumption on or after October 9, 1991, and to require a cash deposit or posting of a bond based on the weighted-average dumping margins presented in the following tabulation.

Exporter	Margin calculation
China Minmetals	80.64
CNIEC	13.05
All others	33.10

EC Antidumping Investigation

The European producers of refined antimony trioxide reportedly filed an antidumping complaint against China on November 7, 1991, with the Commission of the European Communities. On March 21, 1992, the Commission published a notice of initiation of its antidumping investigation concerning imports of refined antimony trioxide from the People's Republic of China.[8]

U.S. Legislation

Antimony trioxide is taxed under the Superfund Amendments and Reauthorization Act of 1986, Public Law 99-499. The tax, amounting to $4.13 per ton ($2.07 per thousand pounds) of antimony trioxide, is levied on producers and importers. Due to a recent extension of the Act, the tax will be in effect until December 31, 1995. In addition, the depletion allowance of 22 percent on domestic production and 14 percent on foreign production was extended.[9] In response to the Commission's questionnaire, the U.S. producers indicated that this legislation had no significant effect on their production of refined antimony trioxide or their ability to compete with imports from China.

---

[8] Telephone conversation with Vincent Clark, Commission of the European Communities, Mar. 24, 1992. A copy of the notice of initiation was subsequently sent to staff.

[9] Telephone conversation with Thomas Llewellyn, U.S. Bureau of Mines, on Jan. 24, 1992.

THE U.S. MARKET

Apparent U.S. Consumption

Data on apparent U.S. consumption of refined antimony trioxide were compiled from information submitted in response to Commission questionnaires. These data, presented in table 2, are composed of the sum of U.S. shipments of the U.S. producers and importers.

Total U.S. consumption, by quantity, increased slightly by 2.1 percent from 1988 to 1990 and decreased by 5.9 percent between the interim periods. In terms of value, total reported U.S. consumption remained constant from 1988 to 1989, decreased by 15.3 percent in 1990, and continued to decline, by 10.8 percent, from January-September 1990 to January-September 1991. The unit value for total consumption (including toll operations of domestic producers) fell from $1.33 per pound in 1988 to $1.11 per pound in 1990, and continued to fall during the interim periods from $1.10 in January-September 1990 to $1.05 in January-September 1991.

An increase of legislation imposing stringent controls on fire safety should create new market opportunities for refined antimony trioxide producers. With no clear substitutes, the use of refined antimony trioxide seems secure unless environmental concerns about its use, which are now incipient, become more important. According to an industry observer, concern about the possible carcinogenic, toxic, and corrosive effects of antimony trioxide (primarily focused on the halogenated organic adjunct) is causing consumption of the subject product to decline in Western Europe. In the United States, much concern about the use of antimony trioxide is focused on the fear that upon degradation, the organic adjunct could release the toxic gas carbon monoxide.[10] However, barring a technological breakthrough or new environmental evidence implicating the use of refined antimony trioxide and the associated synergistic adjunct, refined antimony trioxide should retain its current market niches in the flame retardant market.

Apparent U.S. consumption by product grade is presented in table 3.[11] As noted, the high-tint grade accounted for the majority of U.S. shipments of refined antimony trioxide during the period for which data were collected in the investigation. In terms of quantity, the high-tint grade averaged 75 percent of total consumption during 1988-90 and in January-September 1991. In terms of value, the high-tint grade accounted for an average of 72 percent of total U.S. consumption during 1988-90 and 70 percent during January-September 1991. The high-tint grade imported from China, by quantity, accounted for an average of 3.7 percent of the U.S. high-tint market during 1988-90 and 8.6 percent during January-September 1991. In comparison, the U.S. producers accounted for an average of 91 percent of the high-tint market during 1988-90 and 88 percent during January-September 1991.

---

[10] Staff conversation with ***.

[11] Data on apparent U.S. consumption, by product grades, are composed of the sum of U.S. shipments of the U.S. producers and U.S. imports of the U.S. importers.

Table 2
Refined antimony trioxide: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (1,000 pounds)				
Producers' U.S. shipments	45,040	47,231	47,249	34,203	32,264
Importers' U.S. shipments:					
China	7,316	8,079	6,780	5,318	4,872
Hong Kong[2]	0	0	227	190	432
Other sources	3,535	3,107	2,781	2,037	1,705
Total	10,851	11,186	9,788	7,545	7,009
Apparent consumption	55,891	58,417	57,037	41,748	39,273
	Value (1,000 dollars)				
Producers' U.S. shipments	61,186	60,887	53,090	38,077	33,922
Importers' U.S. shipments:					
China	8,443	8,900	6,188	4,883	4,223
Hong Kong	0	0	196	165	349
Other sources[3]	4,960	5,151	4,023	2,927	2,593
Total	13,403	14,051	10,407	7,975	7,165
Apparent consumption	74,589	74,938	63,497	46,052	41,087
	Unit value (per pound)				
Producers' U.S. shipments	$1.36	$1.29	$1.12	$1.11	$1.05
Importers' U.S. shipments:					
China	1.15	1.10	0.91	0.92	0.87
Hong Kong	(4)	(4)	0.86	0.87	0.81
Other sources	1.40	1.66	1.45	1.44	1.52
Average	1.24	1.26	1.06	1.06	1.02
Average	1.33	1.28	1.11	1.10	1.05

[1] The data in the table are for 7 producers and 22 importers, accounting for nearly 100 percent of total U.S. shipments of refined antimony trioxide in 1990.

[2] No importer reported imports from Macao.

[3] The value of U.S. shipments of imports from other sources is slightly understated. *** questionnaire response as reported by SICA included only the value of imports and not the value of domestic shipments.

[4] Not applicable.

Note.--Because of rounding, figures may not add to the totals shown.

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

Table 3
Refined antimony trioxide: U.S. shipments of domestic product, U.S. imports, and apparent U.S. consumption, by product grades,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988[2]	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (1,000 pounds)				
Low-tint:					
Producers' U.S. shipments	3,935	3,013	2,220	1,294	1,858
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	220	165	174
Other sources	529	523	351	299	301
Total	529	523	571	464	475
Apparent consumption	4,464	3,536	2,791	1,758	2,333
High-tint:[3]					
Producers' U.S. shipments	31,320	33,610	33,687	24,309	22,916
U.S. imports:					
China	1,041	1,623	1,360	1,210	2,250
Hong Kong	0	0	79	79	212
Other sources	1,186	1,309	1,061	796	641
Total	2,227	2,932	2,500	2,085	3,103
Apparent consumption	33,547	36,542	36,187	26,394	26,019
Ultra-fine tint:					
Producers' U.S. shipments	1,054	1,313	1,626	1,298	1,237
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	0	0	0
Other sources	155	203	135	132	172
Total	155	203	135	132	172
Apparent consumption	1,209	1,516	1,761	1,430	1,409
Ultra-pure:					
Producers' U.S. shipments	279	201	431	343	337
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	0	0	0
Other sources	299	96	182	118	213
Total	299	96	182	118	213
Apparent consumption	578	297	613	461	550
Generic:[3]					
Producers' U.S. shipments	2,340	2,525	3,760	2,759	2,691
U.S. imports:					
China	5,373	3,549	2,946	2,190	1,279
Hong Kong	0	0	0	0	0
Other sources	0	0	159	106	178
Total	5,373	3,549	3,105	2,296	1,457
Apparent consumption	7,713	6,074	6,865	5,055	4,148

Footnotes appear at end of table.

Table 3--Continued
Refined antimony trioxide: U.S. shipments of domestic product, U.S. imports, and apparent U.S. consumption, by product grades,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988[2]	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Value (1,000 dollars)				
Low-tint:					
Producers' U.S. shipments	5,604	4,259	3,077	1,897	2,567
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	161	121	197
Other sources	801	822	524	393	434
Total	801	822	685	514	631
Apparent consumption	6,405	5,081	3,762	2,411	3,198
High-tint:[3]					
Producers' U.S. shipments	41,632	41,543	35,778	25,981	23,026
U.S. imports:					
China	1,092	1,512	1,133	1,005	1,795
Hong Kong	0	0	64	64	167
Other sources	1,543	1,751	1,312	984	736
Total	2,635	3,263	2,509	2,053	2,698
Apparent consumption	44,267	44,806	38,287	28,034	25,724
Ultra-fine tint:					
Producers' U.S. shipments	1,884	2,356	2,817	2,267	2,133
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	0	0	0
Other sources	319	418	278	272	354
Total	319	418	278	272	354
Apparent consumption	2,203	2,774	3,095	2,539	2,487
Ultra-pure:					
Producers' U.S. shipments	486	387	751	603	608
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	0	0	0
Other sources	497	217	330	251	480
Total	497	217	330	251	480
Apparent consumption	983	604	1,081	854	1,088
Generic:[3]					
Producers' U.S. shipments	3,218	3,467	4,758	3,497	3,170
U.S. imports:					
China	5,705	3,482	2,511	1,887	1,002
Hong Kong	0	0	0	0	0
Other sources	0	0	137	103	170
Total	5,705	3,482	2,648	1,990	1,172
Apparent consumption	8,923	6,949	7,406	5,487	4,342

Footnotes appear at end of table.

Footnotes to table 3

[1] The data in the table are for 5 producers and 19 importers, accounting for approximately 85 percent of total U.S. shipments of refined antimony trioxide during 1990.

[2] Since Laurel could not provide a product breakdown for 1988, 1989 ratios were calculated and applied to 1988. The total shipments do reflect Laurel's actual shipments for 1988 of refined antimony trioxide.

[3] Since there are no industry-wide standards distinguishing the generic grade from the high-tint grade, there may be some overlap in the reporting of these two grades. The generic grade, a new term to the industry, is essentially a poorer quality of the high-tint grade, and some firms may have reported generic grade in the high-tint category or vice versa. However, regardless of any adjustments, the high-tint grade was the largest-volume refined antimony trioxide product.

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

The generic grade was the second-largest market, accounting for an average of 14.3 percent of U.S. shipments during 1988-90 and 12.0 percent in January-September 1991. The Chinese product accounted for an average of 57.5 percent of the generic grade market during 1988-90 and 30.8 percent during January-September 1991. In comparison, the U.S. producers accounted for an average of 41.7 percent during 1988-90 and 64.9 percent during January-September 1991.

The low-tint, ultra-fine tint, and ultra-pure grades accounted for a small share of U.S. shipments. Since China's production of these specialty grades does not meet the quality standards demanded by U.S. end users, the U.S. producers dominate the market for these grades.

The respondents argue that the Chinese-produced refined antimony trioxide is not classified according to the five grades as reported in the preceding table. Rather, they claim that the Chinese manufacturers produce two grades, of which only one is sold to CNIEC and China Minmetals for export. The product manufactured for export is Grade 0, which is dry refined antimony trioxide with Sb_2O_3 above 99.5 percent with an average particle size ranging between 1.2 and 1.4 microns. Grade 1 is dry refined antimony trioxide with Sb_2O_3 below 99.5 percent. Due to the low purity level, Grade 1 is not marketable outside China and is used only in domestic consumption. In the U.S. Department of Commerce's verification, it confirmed that China had exported only one grade (Grade 0) to the United States during the period of investigation. Therefore, the staff has also presented apparent U.S. consumption data according to a low- and high-end market tier (table 4). The high-end market tier consists of the specialty grades for which certain particle size distributions and purity ranges differentiate the products, i.e. the low-tint, ultra-fine and ultra-pure grades. The low-end market tier consists of the standard grades, i.e., the high-tint and generic grades. As indicated in table 4, the Chinese imports accounted for an average of 12.6 percent of the low-end market during 1988-90 and 11.6 percent during January-September 1991. In comparison, the U.S. producers accounted for an average of 84.5 percent during 1988-90 and 84.9 percent in January-September 1991.

Table 4
Refined antimony trioxide: U.S. shipments of domestic product, U.S. imports, and apparent U.S. consumption, by market tiers,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988[2]	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Quantity (1,000 pounds)				
High-end:					
Producers' U.S. shipments	5,268	4,527	4,277	2,935	3,432
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	220	165	174
Other sources	983	822	668	549	686
Total	983	822	888	714	860
Apparent consumption	6,251	5,349	5,165	3,649	4,292
Low-end:					
Producers' U.S. shipments	33,660	36,135	37,447	27,068	25,607
U.S. imports:					
China	6,414	5,172	4,306	3,400	3,529
Hong Kong	0	0	79	79	212
Other sources	1,186	1,309	1,220	902	819
Total	7,600	6,481	5,605	4,381	4,560
Apparent consumption	41,260	42,616	43,052	31,449	30,167
	Value (1,000 dollars)				
High-end:					
Producers' U.S. shipments	7,974	7,002	6,645	4,767	5,308
U.S. imports:					
China	0	0	0	0	0
Hong Kong	0	0	161	121	197
Other sources	1,617	1,457	1,132	916	1,268
Total	1,617	1,457	1,293	1,037	1,465
Apparent consumption	9,591	8,459	7,938	5,804	6,773
Low-end:					
Producers' U.S. shipments	44,850	45,010	40,536	29,478	26,196
U.S. imports:					
China	6,797	4,994	3,644	2,892	2,797
Hong Kong	0	0	64	64	167
Other sources	1,543	1,751	1,449	1,087	906
Total	8,340	6,745	5,157	4,043	3,870
Apparent consumption	53,190	51,755	45,693	33,521	30,066

[1] The data in the table are for 5 producers and 19 importers, accounting for approximately 85 percent of total U.S. shipments of refined antimony trioxide during 1990.

[2] Since Laurel could not provide a product breakdown for 1988, 1989 ratios were calculated and applied to 1988. The total shipments do reflect Laurel's actual shipments for 1988 of refined antimony trioxide.

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

U.S. Producers

There are seven firms known to have produced refined antimony trioxide during the period of investigation. The Commission sent producer questionnaires to these firms and received complete responses from six firms. United States Antimony Corp. (USAC), a member of the petitioning coalition, only furnished useable production, shipments, and inventory data. The names of the producers, the location of their manufacturing facilities, each firm's share of reported production in 1990, and the position each firm has taken with respect to the petition are presented in table 5.

Amspec Chemical Corp. (Amspec), of Gloucester, NJ, is a wholly owned subsidiary of Antimony Products of America, which owns Antimony Products of Mexico and Antimony Products of Canada. Amspec is one of the three largest U.S. producers of refined antimony trioxide. Its share of total production in 1990 was *** percent. ***.

Anzon, Inc. (Anzon), of Philadelphia, PA, is a subsidiary of Cookson Group PLC in the United Kingdom. Anzon was *** U.S. producer of refined antimony trioxide in 1990, accounting for *** percent of total U.S. production in that year. Anzon produces a wide range of antimony-based products, including refined antimony trioxide, at its production facility in Laredo, TX. In 1988, Anzon expanded its refined antimony trioxide capacity when it purchased the antimony operations of McGean-Rohco, Inc. The sale included all products, production and lab equipment, process and research technology, customer lists, and trademarks. ***.

Although a major producer of nonferrous metals, specialty chemicals, and minerals, Asarco, Inc. (Asarco), of New York, NY, produces *** of refined antimony trioxide in its Omaha facility. Accounting for *** percent of total U.S. production in 1990, Asarco is the *** U.S. producer of refined antimony trioxide. Asarco owns a substantial interest in three of the world's major mining companies and has mining properties throughout the United States and abroad. ***.

No longer a U.S. producer, Atochem North America, Inc. (Atochem) stopped manufacturing refined antimony trioxide in April 1988. It now participates in the refined antimony trioxide market through its subsidiary M&T Harshaw as a major buyer/distributor of product produced by ***. Atochem indicated that it discontinued its refined antimony trioxide operations because of economic reasons associated with cheaper imports from China. M&T Harshaw's current operations consist of blending or wetting purchased refined antimony trioxide and producing other antimony-based products.

Accounting for *** of total U.S. production of refined antimony trioxide in 1990, Chemet Company (Chemet), of Moscow, TN, is the *** U.S. producer. Chemet reported that it was forced to cease production from mid-1987 to the latter part of 1989 because of prevailing price levels, both for antimony feedstocks and the refined product, and its inability to compete with lower priced imports. Since restarting production in 1989, Chemet has produced refined antimony trioxide ***.

Table 5
Refined antimony trioxide: U.S. producers and their plant locations, shares of reported production, and position on the petition

Firm	Plant location	Share of reported production in 1990	Position on the petition
Amspec Chemical Corp	Gloucester City, NJ[1]	***	Opposes
Anzon, Inc	Laredo, TX	***	Supports
Asarco, Inc	Omaha, NE[2]	***	***
Chemet Co	Moscow, TN[3]	***	***
Laurel Industries, Inc.	LaPorte, TX[4]	***	Supports
United States Antimony Corp	Thompson Falls, MT	***	Supports

[1] Plant acquired from the Harshaw Chemical Co. in 1983.
[2] Operations at this facility began in the early 1900s.
[3] Operations at this facility began in 1978.
[4] This facility first started operations in 1977 when owned by Chemetron Corp. Laurel purchased the facility in 1983.

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

Laurel Industries, Inc. (Laurel), of Cleveland, OH, manufactures refined antimony trioxide at its LaPorte, TX facility. Accounting for *** percent of total U.S. production in 1990, Laurel is the *** U.S. producer. ***.

USAC, of Thompson Falls, MT, is one of two producers that owns a U.S. mine from which it can mine antimony ores and concentrates. However, USAC reported that it suspended all mining operations in December 1983 due to high production costs and the availability of inexpensive imported antimony materials. ***. In 1990, USAC accounted for *** percent of total U.S. production of refined antimony trioxide.

As mentioned earlier, one other firm, McGean-Rohco of Cleveland, OH, is known to have produced refined antimony trioxide during the early part of the period for which data were collected in the investigation. In response to the Commission's questionnaire, McGean-Rohco filed a letter that stated that it sold its antimony trioxide business to Anzon on January 22, 1988.[12] McGean-Rohco's current activities include producing and marketing nickel and chrome,

[12] Dickson Whitney, Sr., chairman of the board and an owner of McGean-Rohco, stated that "One of the primary reasons McGean-Rohco sold its antimony trioxide business was that we believed that we would be unable to compete effectively with low-priced imports of Chinese refined antimony trioxide over the long term." (Petitioners' prehearing brief, app. 1.)

inorganic chemicals, proprietary chemicals, and specialized transportation and industrial cleaners.[13]

One of the petitioning firms, United States Antimony Sales Corp. (USASC), is not a producer but rather a marketing firm. USASC, a joint venture between USAC and General Plastics and Chemicals Co., was formed in December 1989 solely for the purpose of marketing refined antimony trioxide produced by USAC. ***.[14]

U.S. Importers

Questionnaires were sent to 33 firms identified by the U.S. Customs Service as having imported antimony oxides during the period of investigation. Of the 33 recipients of the Commission's questionnaire, imports of refined antimony trioxide were reported by 22 firms, 16 of which reported imports of refined antimony trioxide from China. Data from the 22 importers are believed to account for virtually all imports of refined antimony trioxide. Two major importers ceased operations during the period between the preliminary and final investigations. F.W. Hempel & Co., *** importer of refined antimony trioxide from China, discontinued its importation of the subject product as of July 31, 1991 due to ***. Unable to respond to the Commission's questionnaire in the final investigation, Mr. Marvin Hausman of F.W. Hempel provided supplemental information to its response in the preliminary investigation. ***, the U.S. distributor for the French refined antimony trioxide producer, Societe Industrielle et Chimique de l'Aisne (SICA), closed its office in September 1991. As *** sole supplier of refined antimony trioxide, SICA provided the relevant trade information in the Commission's questionnaire.

U.S. importers of refined antimony trioxide are generally large U.S. trading companies that import a broad range of minerals, metals, and chemical products. The larger importers, such as ***, tend to be owned indirectly by offshore companies through U.S. holding companies. U.S. importers that have an affiliation with producers or exporters in China include Metaland International, Inc. of Houston, TX; Minmetals, Inc. of Fort Lee, NJ; and Nonferrous Metals (USA), Inc. of New York, NY.

Two U.S. producers imported refined antimony trioxide during the period of investigation. ***, and Amspec imported from China ***.

Channels of Distribution

Channels of distribution for refined antimony trioxide differ for U.S. producers and importers. Sales of U.S.-produced refined antimony trioxide generally take place directly between the U.S. producer and end user. In fact, 79 percent of producers' U.S. shipments was sold to unrelated end users in 1990. Toll agreements with end users are common in the industry. ***. Sales of the U.S.-produced product to unrelated distributors accounted for 20

---

[13] Petitioners' postconference brief at exhibit 3.
[14] Telephone conversation with ***, Jan. 8, 1992.

percent of U.S. producers' total sales in 1990. Refined antimony trioxide imported from China has a higher percentage of product reaching the end user through distributors. Of such imports, 82 percent was sold to unrelated distributors in 1990.

CONSIDERATION OF ALLEGED MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

The information provided in this section of the report is based on responses to Commission questionnaires. Six firms, accounting for about *** percent of U.S. production of refined antimony trioxide during the period of investigation, provided complete responses to the Commission's request for data. The six firms are Amspec, Anzon, Asarco, Atochem, Chemet, and Laurel. USAC, a petitioner in this investigation, only reported useable production, shipments, and inventory data; therefore, the sections concerning capacity and employment do not include responses from USAC.

Data relating to antimony metal and crude antimony trioxide are presented in appendix D.

U.S. Producers' Capacity, Production, and Capacity Utilization

As indicated in table 6, the U.S. producers' end-of-period capacity to produce refined antimony trioxide increased 21 percent from 1988 to 1990, but decreased slightly, by 4 percent, between the interim periods. ***.

As reported by seven producers, U.S. production increased 14 percent from 1988 to 1990, but decreased 16 percent between the interim periods (table 7). Contributing to the drop in production between the interim periods was a suspension of refined antimony trioxide production ***.

Average capacity utilization, based on six reporting firms, decreased from 79.4 percent in 1988 to 76.6 percent in 1990, and continued to decline in the interim periods from 75.9 percent in January-September 1990 to 66.0 percent in January-September 1991. U.S. producers' capacity exceeded apparent consumption in 1989, 1990, and January-September 1991.

U.S. Producers' Toll Production

Of the seven firms for which data were reported, five toll produced refined antimony trioxide, either for end users or affiliated firms.[15] As indicated in table 7, the volume of toll production as a share of total production increased steadily throughout the period of investigation. Three

[15] Under toll production arrangements, U.S. customers own the raw material and are charged a conversion fee by the contracted producer to process the raw antimony (typically antimony metal or crude antimony trioxide) into refined antimony trioxide.

Table 6
Refined antimony trioxide: U.S. capacity, production, and capacity utilization,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
End-of-period capacity (1,000 pounds)	***	***	***	***	***
Average-of-period capacity (1,000 pounds)	***	***	***	***	***
Production (1,000 pounds)	***	***	***	***	***
End-of-period capacity utilization (percent)	79.4	79.6	73.7	73.1	63.4
Average-of-period capacity utilization (percent)	79.4	83.1	76.6	75.9	66.0

[1] The data in the table are for 6 producers, accounting for approximately *** percent of production of refined antimony trioxide during 1990.

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

Table 7
Refined antimony trioxide: U.S. producers' non-toll and toll production,[1] 1988-90, January-September 1990, and January-September 1991

(In 1,000 pounds)

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
Non-toll production	42,481	44,285	40,217	29,999	24,440
Toll production	1,924	4,143	10,410	7,824	7,297
Total production	44,405	48,428	50,627	37,823	31,737
Toll production as a share of total production (percent)	4.3	8.6	20.6	20.7	23.0

[1] The data in the table are for 7 producers accounting for nearly 100 percent of U.S. production of refined antimony trioxide in 1990.

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

U.S. producers have toll agreements with large end users, which purchase antimony metal and/or crude oxide from Chinese producers. ***.[16] The producers do not track the feedstock received under toll agreements; the feedstock is checked against quality control standards and stored together with the other inventories.

As indicated in the following tabulation, the significant increase in toll production is due largely to the fact that *** purchasers entered into toll agreements in early 1990. ***.[17] ***. The following tabulation also shows that *** its purchases of toll-produced refined antimony trioxide during the period for which data were collected in the investigation. *** purchases *** percent from 1989 to 1990 partly due to an increase in its production of plastics.

* * * * * * *

U.S. Producers' Shipments

U.S. Shipments

The U.S. producers' total U.S. shipments of refined antimony trioxide increased by 4.9 percent from 1988 to 1990 (table 8). For the interim periods, shipments decreased by 5.7 percent from January-September 1990 to January-September 1991. In terms of value, U.S. producers' shipments decreased by 13.2 percent from 1988 to 1990 and by 10.9 percent between the interim periods. The average unit value of U.S. shipments of refined antimony trioxide decreased steadily from $1.36 per pound in 1988 to $1.12 per pound in 1990. Similarly, the unit value decreased in the interim periods from $1.11 per pound in January-September 1990 to $1.05 per pound in January-September 1991. The sharp decrease in unit value is partially explained by the increase of toll production in the industry. As noted earlier, toll production as a share of total production was 20.6 percent in 1990. The average unit value for non-toll operations decreased from $1.40 per pound in 1988 to $1.34 per pound in 1990. During the interim periods, the average unit value decreased from $1.34 to $1.26.

The quantity of U.S. shipments by *** steadily increased from 1988 to 1990, while the quantity of *** shipments rose unevenly over the same period, and those of *** declined steadily. All U.S. producers, except for ***, reported decreases in the quantity of their U.S. shipments from January-September 1990 to January-September 1991. During 1988-90, all firms *** reported a decline in the value of their shipments. Between the interim periods, all but *** reported a decline in value.

As indicated in table 9, the high-tint grade accounted for the majority of the producers' domestic shipments of refined antimony trioxide. In 1990, the high-tint grade accounted for 81 percent of such shipments. All the U.S.

---

[16] ***.

[17] Staff telephone conversation with ***, on Feb. 29, 1992.

Table 8
Refined antimony trioxide: U.S. producers' U.S. shipments,[1] by firms, 1988-90, January-September 1990, and January-September 1991

Firm	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (1,000 pounds)				
Amspec:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Anzon:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Asarco:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Atochem:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Chemet:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Laurel:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
USAC:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Total non-toll operations	43,116	43,088	36,839	26,379	24,967
Total toll operations	1,924	4,143	10,410	7,824	7,297
Total shipments	45,040	47,231	47,249	34,203	32,264

Footnotes appear at end of table.

Table 8--Continued
Refined antimony trioxide: U.S. producers' U.S. shipments,[1] by firms, 1988-90, January-September 1990, and January-September 1991

Firm	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Value (1,000 dollars)				
Amspec:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Anzon:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Asarco:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Atochem:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Chemet:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Laurel:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
USAC:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Total non-toll operations	60,513	59,368	49,457	35,390	31,423
Total toll operations	673	1,519	3,633	2,687	2,499
Total shipments	61,186	60,887	53,090	38,077	33,922

Footnotes appear at end of table.

Table 8--Continued
Refined antimony trioxide: U.S. producers' U.S. shipments,[1] by firms, 1988-90, January-September 1990, and January-September 1991

Firm	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Unit value (per pound)				
Amspec:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Anzon:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Asarco:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Atochem:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Chemet:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Laurel:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
USAC:					
Non-toll operations	***	***	***	***	***
Toll operations	***	***	***	***	***
Total	***	***	***	***	***
Average non-toll operations	$1.40	$1.38	$1.34	$1.34	$1.26
Average toll operations	.35	.37	.35	.34	.34
Average, all shipments	1.36	1.29	1.12	1.11	1.05

[1] The data in the table are for 7 producers accounting for nearly 100 percent of U.S. production of refined antimony trioxide in 1990.
[2] Not applicable.

Note.--Because of rounding, figures may not add to the totals shown.

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

Table 9
Refined antimony trioxide: U.S. producers' U.S. shipments,[1] by product grades, 1988-90, January-September 1990, and January-September 1991

Item	1988[2]	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Quantity (1,000 pounds)				
Low-tint	3,935	3,013	2,220	1,294	1,858
High-tint	31,320	33,610	33,687	24,309	22,916
Ultra-fine tint	1,054	1,313	1,626	1,298	1,237
Ultra-pure	279	201	431	343	337
Generic	2,340	2,525	3,760	2,759	2,691
Total	38,928	40,662	41,724	30,003	29,039
	Value (1,000 dollars)				
Low-tint	5,604	4,259	3,077	1,897	2,567
High-tint	41,632	41,543	35,778	25,981	23,026
Ultra-fine tint	1,884	2,356	2,817	2,267	2,133
Ultra-pure	486	387	751	603	608
Generic	3,218	3,467	4,758	3,497	3,170
Total	52,824	52,012	47,181	34,245	31,504
	Unit value (per pound)				
Low-tint	$1.42	$1.41	$1.39	$1.47	$1.38
High-tint	1.33	1.24	1.06	1.07	1.00
Ultra-fine tint	1.79	1.79	1.73	1.75	1.72
Ultra-pure	1.74	1.93	1.74	1.76	1.80
Generic	1.38	1.37	1.27	1.27	1.18
Average	1.36	1.28	1.13	1.14	1.08

[1] The data in the table are for 5 producers accounting for approximately *** percent of U.S. production of refined antimony trioxide in 1990.

[2] Since Laurel could not provide a product-grade breakdown for 1988, 1989 ratios were calculated and applied to 1988. The total shipments do reflect Laurel's actual shipments for 1988 of refined antimony trioxide.

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

producers manufacture a high-tint grade. The generic grade is next in importance, accounting for 9 percent of total shipments in 1990. It is interesting to note that the U.S. producers began marketing the generic grade to compete with imports from China.[18] The low-tint grade accounted for 5 percent of total U.S. producers' domestic shipments in 1990. Amspec, Asarco, Anzon, and Laurel produce the low-tint grade. Of lesser significance are the ultra-fine tint and the ultra-pure grades, which accounted for 4 percent and 1 percent of U.S. shipments in 1990, respectively. Anzon, Asarco, and Laurel produce both grades.

Export Shipments

As indicated in table 10, the quantity and value of U.S. producers' exports of refined antimony trioxide increased irregularly throughout the period for which data were collected in the investigation, but continued to account for only a small share of U.S. producers' total shipments. U.S. producers' export markets include Mexico, Canada, Venezuela, India, Turkey, the United Kingdom, Singapore, Hong Kong, Taiwan, Japan, Israel, Spain, and Germany.

Total Shipments

As indicated in table 11, total U.S. producers' shipments of domestically produced refined antimony trioxide increased steadily, by a total of 5.3 percent, from 1988 to 1990, but decreased by 4.0 percent between the interim periods. The value of such shipments decreased by 12.3 percent from 1988 to 1990, and continued to decline, by 10.0 percent, between the interim periods. Company transfers increased irregularly by 42.2 percent during 1988-90, but decreased by 21.1 percent between the interim periods. By value, company transfers decreased irregularly by 24.8 percent during 1988-90, and continued to decline, by 32.2 percent, between the interim periods.

U.S. Producers' Inventories

The U.S. producers' end-of-period inventories of refined antimony trioxide are presented in table 12. These inventories increased by 29 percent from 1988 to 1990, but fell 35 percent from January-September 1990 to January-September 1991. The ratio of U.S. producers' inventories to their U.S. shipments rose from 13.5 percent in 1988 to 16.7 percent in 1990, but fell between the interim periods from 18.8 percent in January-September 1990 to 13.0 percent in January-September 1991. Maintenance of large inventories is not harmful to the product due to refined antimony trioxide's long shelf life.

---

[18] Staff conversation with ***, on Nov. 7, 1991.

Table 10
Refined antimony trioxide: U.S. producers' export shipments,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
Quantity (1,000 pounds)	1,433	1,108	1,681	1,227	1,762
Value (1,000 dollars)	2,100	1,562	2,385	1,945	2,089
As a share of total shipments (quantity)	3.1	2.3	3.4	3.5	5.2
As a share of total shipments (value)	3.3	2.5	4.3	4.9	5.8

[1] The data in the table are for 7 producers accounting for nearly 100 percent of U.S. production of refined antimony trioxide in 1990.

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

Table 11
Refined antimony trioxide: Total shipments by U.S. producers,[1] by types, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (1,000 pounds)				
Company transfers	2,212	1,643	3,145	2,131	1,682
Domestic shipments	42,828	45,588	44,104	32,072	30,582
Subtotal	45,040	47,231	47,249	34,203	32,264
Exports	1,433	1,108	1,681	1,227	1,762
Total	46,473	48,339	48,930	35,430	34,026
	Value (1,000 dollars)				
Company transfers	2,999	2,106	2,255	1,349	914
Domestic shipments	58,187	58,781	50,835	36,728	33,008
Subtotal	61,186	60,887	53,090	38,077	33,922
Exports	2,100	1,562	2,385	1,945	2,089
Total	63,286	62,449	55,475	40,022	36,011

[1] The data in the table are for 7 producers accounting for nearly 100 percent of U.S. production of refined antimony trioxide in 1990.

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

Table 12
Refined antimony trioxide: End-of-period inventories of U.S. producers,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
Inventories (1,000 pounds) . .	6,084	6,173	7,870	8,566	5,581
Ratio of inventories to--					
Production (percent)	13.7	12.7	15.5	17.0	13.2
U.S. shipments (percent) . .	13.5	13.1	16.7	18.8	13.0
Total shipments (percent) . .	13.1	12.8	16.1	18.1	12.3

[1] The data in the table are for 7 producers accounting for nearly 100 percent of U.S. production of refined antimony trioxide during 1990.

Note: Partial year ratios are calculated using annualized shipments.

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

Employment, Wages, and Productivity

The U.S. producers' employment and productivity data are presented in table 13. The number of production and related workers producing refined antimony trioxide decreased 23 percent during 1988-90 and 18 percent in interim 1991 compared to the same period a year earlier. Accounting for this decrease in work force, *** reported permanent or temporary layoffs of a total of *** production and related workers during the period for which data were collected in the investigation. ***. All firms reported that they did not produce other products using the same production and related workers employed in the production of refined antimony trioxide.

In response to the question in the Commission's questionnaire concerning union representation of production and related workers employed in producing refined antimony trioxide, Amspec responded that its employees are represented by the Oil, Chemical & Atomic Workers Union and Asarco's employees are represented by the United Steelworkers of America. The other producers' workers are not represented by unions.

The number of hours worked by production and related workers producing refined antimony trioxide declined by 8 percent from 1988 to 1990, and continued to fall, by 16 percent, between the interim periods. Wages and total compensation paid to production and related workers by U.S. producers increased from 1988 to 1990. However, between the interim periods, wages and total compensation declined sharply, reflecting the reduction in the work force. Hourly wages and hourly total compensation paid to U.S. producers' production and related workers increased steadily from 1988 to 1991. The U.S. producers' unit labor costs remained constant at seven cents per pound throughout the period for which data were collected in the investigation. Productivity of production and related workers increased by 22 percent from 1988 to 1990 and remained constant between the interim periods. *** had the highest output per worker, averaging *** pounds per worker hour during 1988-90 and *** pounds per worker hour in January-September 1991.

Table 13
Average number of total employees and production and related workers in establishments wherein refined antimony trioxide is produced, hours worked,[1] wages and total compensation paid to such workers, and hourly wages, hourly total compensation, productivity, and unit labor costs,[2] by products, 1988-90, January-September 1990, and January-September 1991[3]

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Number of employees				
All products	434	417	396	398	374
	Number of production and related workers (PRWs)				
All products	326	297	288	287	266
Refined antimony trioxide	118	94	91	88	72
	Hours worked by PRWs (1,000 hours)				
All products	627	609	621	472	435
Refined antimony trioxide	209	185	192	152	127
	Wages paid to PRWs (1,000 dollars)				
All products	6,687	7,270	7,758	5,805	5,494
Refined antimony trioxide	2,166	2,272	2,414	1,836	1,580
	Total compensation paid to PRWs (1,000 dollars)				
All products	9,209	10,068	10,755	8,255	7,937
Refined antimony trioxide	3,034	3,190	3,401	2,604	2,245
	Hourly wages paid to PRWs				
All products	$10.67	$11.94	$12.49	$12.30	$12.63
Refined antimony trioxide	10.36	12.28	12.57	12.08	12.44
	Hourly total compensation paid to PRWs				
All products	$14.69	$16.53	$17.32	$17.49	$18.25
Refined antimony trioxide	14.52	17.24	17.71	17.13	17.68
	Productivity (pounds per hour)				
Refined antimony trioxide	208.6	255.0	254.6	240.3	240.6
	Unit labor costs (per pound)				
Refined antimony trioxide	$0.07	$0.07	$0.07	$0.07	$0.07

[1] Includes hours worked plus hours of paid leave time.
[2] On the basis of total compensation paid.
[3] Firms providing employment data accounted for *** percent of reported total U.S. shipments (based on quantity) in 1990.

Note.--Ratios are calculated using data of firms supplying both numerator and denominator information.

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

Financial Experience of U.S. Producers

Six producers (Amspec, Anzon, Asarco, Atochem, Chemet, and Laurel), accounting for approximately *** percent of 1990 U.S. production of refined antimony trioxide, provided useable financial data. The companies included toll operations on refined antimony trioxide in their income-and-loss submissions. Toll operations accounted for *** percent of total refined antimony trioxide net sales dollars and *** percent of total net sales volume in 1990.[19] Toll and non-toll operations for the producers, ***, are presented separately in appendix E. Refined antimony trioxide constitutes the largest establishment product for the major producers ***.[20]

* * * * * * *[21]

The income-and-loss experience of the U.S. producers[22] on their operations producing refined antimony trioxide[23] is presented in table 14. Net sales decreased by *** percent from *** in 1988 to *** in 1989. In 1990, sales were ***, representing a decline of *** percent from 1989 sales. Operating income was *** in 1988, *** in 1989, and *** in 1990. Operating income margins, as a ratio to net sales, were *** percent in 1988, *** percent in 1989, and *** percent in 1990.[24] *** incurred an operating loss in 1990.

* * * * * * *

---

[19] *** toll operations accounted for *** percent of its refined antimony trioxide net sales value in 1990, ***. *** stated in their questionnaire responses that they were unable to separate costs associated with toll operations. All toll operations were with companies other than refined antimony trioxide producers. *** did not have toll operations.

[20] *** refined antimony trioxide net sales to overall establishment net sales were *** percent in 1990, *** were *** percent, and *** were *** percent.

[21] ***.

[22] *** provided income-and-loss data for its antimony products department, which included approximately *** percent of net sales of imported refined antimony trioxide and approximately *** percent of net sales of antimony metal and ores in 1990. *** explained in the questionnaire response that it was unable to separate the data further. The quantities provided, however, included only its manufactured refined antimony trioxide. For purposes of the per-pound computations shown later in this section, the quantities for shipments of imported refined antimony trioxide provided in *** importer's questionnaire response were added to the net sales quantities in the producer's questionnaire.

[23] ***.

[24] For comparison purposes, operating income margins as a percent of sales (average of four quarters, three quarters for interim 1991) for Nonferrous Metals (companies with assets under $25 million) from the Quarterly Financial Reports of the U.S. Department of Commerce were 6.3 percent for 1988, 5.3 percent for 1989, 3.0 percent for 1990, and 2.5 percent for interim 1991. Operating income margins as a percent of sales for Nonferrous Metals (all companies) were 9.6 percent for 1988, 8.9 percent for 1989, 6.4 percent for 1990 and 4.8 percent for interim 1991.

Table 14
Income-and-loss experience of U.S. producers[1] on their operations producing refined antimony trioxide, fiscal years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*	*

[1] The producers and their fiscal years are ***.
[2] Cash flow is defined as net income or loss plus depreciation and amortization.

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

In interim 1991, net sales were ***, down by *** percent from interim 1990 sales of *** million. Operating income was *** in interim 1990 and *** in interim 1991. Operating income margins were *** percent in interim 1990 and *** percent in interim 1991. *** also incurred operating losses in both of the interim periods.

Selected income-and-loss data of the U.S. producers on their operations producing refined antimony trioxide, by producer,[25] are presented in table 15. As shown in table 15, *** net income is substantially less than its operating income, principally due to ***.[26] As indicated in tables 14 and 15, the industry's net sales decreased slightly between 1988 and 1989, but then declined markedly in 1990. However, the effect on profit margins was restrained because the percentage decline between 1989 and 1990 (table 14) in the cost of goods sold (***) was more than the percentage decline (***) in net sales. Rising selling, general, and administrative (SG&A) expenses affected the profitability trends. These expenses increased by *** percent between 1988 and 1990 and *** percent between the two interim periods. ***.[27]

In contrast to ***,[28] *** producers *** reported *** in their ***[29] between 1988 and 1990. According to the petitioners, China is the world's largest supplier of the raw materials and the Chinese are depressing raw material prices and have "progressively eliminated the alternative sources through price competition."[30] In their questionnaire responses, the producers also cited *** as other countries from which they purchase raw materials. ***

[25] *** does not allocate interest expenses to the product level. Interest expenses for *** overall establishment operations were minor in all periods (*** percent of net sales in 1990). *** does not allocate interest expenses to the establishment level.
[26] ***.
[27] Telephone conversations with ***.
[28] ***.
[29] Even though net sales prices have decreased, raw material costs as a percent of net sales have decreased more. ***.
[30] Transcript of conference, p. 24.

Table 15
Income-and-loss experience of U.S. producers on their operations producing refined antimony trioxide, by firms, fiscal years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*	*

[1] Not applicable.

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

purchase some of their raw materials from related parties. ***.[31] ***.[32] Raw material as a percent of cost of goods sold in 1990 was approximately ***.[33] The estimated value added in 1990 by the three major producers of refined antimony trioxide is presented in the following tabulation (in thousands of dollars, except as noted):

* * * * * * *

Net non-toll sales, on a dollars-per-pound basis, by producer, are shown in table 16.[34] The average non-toll net sales per pound increased *** from *** in 1988 to *** in 1989, and decreased *** to *** in 1990. The per-pound net sales value decreased further by *** to *** in interim 1991 compared to *** in interim 1990. The average toll net sales per pound, as shown in table 17, remained relatively constant, ranging from *** to ***. Income-and-loss data for toll and non-toll operations on refined antimony trioxide are presented separately in appendix E.

Research and Development

Research and development expenses for refined antimony trioxide for four producers *** amounted to *** in 1988, *** in 1989, *** in 1990, *** in interim 1990, and *** in interim 1991.

Investment in Productive Facilities

The investment in property, plant, and equipment and return on investment for the six reporting producers are shown in table 18. The operating return and net return on total assets increased slightly from 1988 to 1989 and decreased dramatically in 1990.

[31] ***.
[32] Telephone conversation with ***.
[33] ***.
[34] ***.

Table 16
Net non-toll sales (on a per-pound basis) for U.S. producers of refined antimony trioxide, by firms, fiscal years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*

[1] Not applicable.

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

Table 17
Net toll sales (on a per-pound basis) for U.S. producers of refined antimony trioxide, by firms, fiscal years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*

[1] Not applicable.

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

Table 18
Refined antimony trioxide: Value of assets and return on assets of U.S. producers,[1] fiscal years 1988-90

Item	1988	1989	1990
*	*	*	*	*	*

[1] The producers that reported data are ***.
[2] Defined as book value of fixed assets plus current and noncurrent assets. Total establishment assets are apportioned, by firm, to product groups on the basis of the ratio of the respective book values of fixed assets.
[3] Defined as operating income or loss divided by asset value.
[4] Defined as net income or loss divided by asset value.

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

Capital Expenditures

Capital expenditures by U.S. producers, as shown in table 19, increased *** percent from *** in 1988 to *** in 1989 and decreased *** percent to *** in 1990. Capital expenditures in interim 1991 were *** compared to *** in interim 1990.

Table 19
Refined antimony trioxide: Capital expenditures by U.S. producers,[1] fiscal years 1988-90, January-September 1990, and January-September 1991

(In 1,000 dollars)

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	*	*	*	*	*	*	*

[1] The producers that reported data are ***.

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

Capital and Investment

The Commission requested U.S. producers to describe any actual or potential negative effects of imports of refined antimony trioxide from China on their firm's growth, investment, ability to raise capital, or existing development and production efforts (including efforts to develop a derivative or improved version of refined antimony trioxide). The producers' responses are presented in appendix F.

CONSIDERATION OF THE QUESTION OF THREAT OF MATERIAL INJURY

Section 771(7)(F)(i) of the Tariff Act of 1930 (19 U.S.C. § 1677(7)(F)(i)) provides that--

> In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of any merchandise, the Commission shall consider, among other relevant factors[35]--

[35] Section 771(7)(F)(ii) of the act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

(I) If a subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the subsidy is an export subsidy inconsistent with the Agreement),

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,

(VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 736, are also used to produce the merchandise under investigation,

(IX) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both), and

> (X) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product.[36]

Items (I) and (IX) are not relevant in this investigation. Information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) is presented in the section entitled "Consideration of the causal relationship between imports of the subject merchandise and the alleged material injury;" and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in the section entitled "Consideration of alleged material injury to an industry in the United States." Available information on U.S. inventories of the subject merchandise (item (V)); foreign producers' operations, including the potential for "product-shifting" (items (II), (VI), and (VIII) above); any other threat indicators, if applicable (item (VII) above); and any dumping in third-country markets, follows. Other threat indicators have not been alleged or are otherwise not applicable.

U.S. Inventories of Refined Antimony Trioxide from China

End-of-period inventories of Chinese-produced refined antimony trioxide held by U.S. importers of record are presented in table 20. Sixteen U.S. firms reported imports of the subject product during the period of investigation.

End-of-period inventories of refined antimony trioxide from China, on the basis of quantity, rose 13 percent from 1988 to 1989, but fell 13 percent in 1990, resulting in a 2-percent decrease for the period 1988-90. Inventories continued to decrease in interim 1991, declining 11 percent compared to interim 1990. End-of-period inventories as a share of total shipments of imports from China increased from 35.6 percent in 1988 to 38.1 percent in 1990. Inventories as a share of total shipments from China continued to increase in the interim periods, rising from 27.1 percent in January-September 1990 to 29.6 percent in January-September 1991.

U.S. Importers' Current Orders

Reported orders for Chinese refined antimony trioxide which U.S. importers have placed for delivery after September 30, 1991, totaled 744,000 pounds. These orders were placed by 4 of the 16 U.S. importers that provided import data in response to the Commission's questionnaire. Deliveries on these orders were scheduled through January 1992.

---

[36] Section 771(7)(F)(iii) of the act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other GATT member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

Table 20
Refined antimony trioxide: End-of-period inventories of U.S. importers,[1] by sources, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (1,000 pounds)				
China	2,515	2,849	2,469	2,053	1,827
Hong Kong	0	0	73	54	27
Other sources	447	636	625	824	901
Total	2,962	3,485	3,167	2,931	2,755
	Ratio to total shipments of imports (percent)				
China	35.6	35.8	38.1	27.1	29.6
Hong Kong	(2)	(2)	32.2	21.3	4.7
Other sources	23.6	32.7	35.9	53.4	55.0
Total	33.1	35.2	37.5	31.7	32.9

[1] The data in the table are for 16 importers accounting for nearly 100 percent of total U.S. imports from China of refined antimony trioxide during 1990.
[2] Not applicable.

Note.--Ratios are calculated using data of firms supplying both numerator and denominator information. Ratios for the January-September periods are computed using annualized shipments.

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

Ability of Chinese Producers to Generate Exports and the Availability of Export Markets other than the United States

China, the world's leading supplier of antimony, accounted for about 48 percent of the total world estimated mine production of antimony during 1990.[37] The U.S. Bureau of Mines estimates Chinese antimony reserves at 2.4 million short tons.[38] Currently, China produces a range of antimony products including ore, concentrates, metal, and oxides. China became a major producer of metal and oxides during the 1980s partly due to the reluctance of Western oxide and metal producers to accept Chinese concentrates. Consequently, China began to convert its antimony concentrates into metal and oxides on a large scale.

[37] Antimony 1990, U.S. Bureau of Mines, Oct. 1991.
[38] The respondents report that China's potential antimony reserves are estimated to be approximately *** metric tons, of which about *** metric tons may be developed for industrial purposes. Respondents' posthearing brief, app. 11.

The two largest refined antimony trioxide producers in China are the Xikuangshan Mining Bureau and the Stibium Products Refinery (Yiyang). They reportedly account for over *** percent of total production in China and *** percent of all direct exports to the United States.[39] For Xikuangshan, both the mine and smelter are on the same premises as the refinery. ***.

Both refineries produce a range of antimony-related products in addition to refined antimony trioxide. The Xikuangshan Mining Bureau has separate refineries dedicated to the sole production of antimony metal, crude antimony trioxide, and antimony sulfide. Although Yiyang produces other antimony-related products, *** percent of its production is dedicated to refined antimony trioxide. ***. Both firms answered "No" in response to the question in the Commission's questionnaire on whether each refinery produced products other than refined antimony trioxide on the same equipment and machinery used in the production of refined antimony trioxide.

The Ministry of Foreign Economic Relations & Trade (MOFERT) has licensed only two exporters of refined antimony trioxide--China National Nonferrous Metals Import & Export Corporation (CNIEC) and China Minmetals. CNIEC and China Minmetals export refined antimony trioxide produced at Xikuangshan and Yiyang. In general, the export licenses for antimony oxide may only be issued by the central Beijing offices of CNIEC and China Minmetals. Thus, not even the branch offices can export antimony oxide without approval from Beijing. However, MOFERT learned that the Guangdong Provincial Trade Administration had given four small joint ventures in this southern province of China the right to export refined antimony trioxide. One of the companies exported to the Netherlands and the other three exported to Hong Kong during the period of investigation.[40]

As CNIEC and China Minmetals are represented by counsel in this proceeding, the Commission requested counsel to provide data on its clients' capacity, production, shipments, and inventories of refined antimony trioxide. Data received by the Commission are presented in table 21.

Reported capacity has *** while levels of production *** percent in 1989, *** percent in 1990, and *** percent from January-September 1990 to January-September 1991. Likewise, capacity utilization *** from *** percent in 1988 to *** percent in 1989, but *** to *** percent in 1990. A *** to *** percent capacity utilization was reported in January-September 1991.

In response to an inquiry regarding the producers' plans to expand production capability of refined antimony trioxide in China, the respondents replied that limitations on the ability to generate electricity, limited antimony reserves, and export quotas set by MOFERT would curtail any increase

---

[39] Respondents' foreign producers questionnaire, p. 4.

[40] In reference to the exports of these four producers, the transcript incorrectly quotes Mr. Wang Lixin's presentation to state "... the licenses we have issued to these producers indicate that now the producers are exporting to the United States." The transcript should read "... the licenses we have issued to these producers indicate that none of the producers are exporting to the United States." Transcript, p. 105, and respondents' written response to a staff inquiry on June 28, 1991.

Table 21
Refined antimony trioxide: Chinese production capacity, production, shipments, and end-of-period inventories,[1] 1988-90, January-September 1990, January-September 1991, and projected 1991 and 1992

(In 1,000 pounds)

Item	1988	1989	1990	Jan.-Sept. 1990	Jan.-Sept. 1991	Projected 1991	Projected 1992
	*	*	*	*	*	*	*

[1] The data in the table are for two producers, accounting for approximately *** percent of Chinese production and nearly *** percent of exports to the United States of refined antimony trioxide during 1990.

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

in production capacity.[41] The annual quotas of antimony oxides (including both crude and refined antimony trioxide) for CNIEC and China Minmetals are presented in the following tabulation. ***.[42] Additionally, MOFERT reported that the export quotas will ***. The quotas apply to Chinese exports of antimony oxides to all countries.

* * * * * * *

In early 1991, the State Council tightened its restrictions on antimony production by prohibiting any private mining and processing activities and by imposing output ceilings on mined and processed antimony products for all licensed state operations. Projections reported by CNIEC and China Minmetals for 1991 and 1992 indicate that ***. Xikuangshan, the *** of the two producers, accounted for *** percent of total production in 1990. Xikuangshan's capacity utilization was *** percent in 1990, and was projected to be *** percent in 1991 and *** percent in 1992. Operating at *** capacity in 1990, Yiyang plans to ***.

The ratio of end-of-period inventories to total shipments *** from *** percent in 1988 to *** percent in 1989, but *** to *** percent in 1990. This ratio *** from *** percent in interim 1990 to *** percent in interim 1991. Shipments to the United States, which accounted for between *** and *** percent of total shipments during the period for which data were collected in the investigation, *** from 1988 to 1990 and from interim 1990 to interim 1991.

In response to an inquiry regarding the possibility of China shifting markets for refined antimony trioxide away from other countries towards the United States, the respondents replied that ***.

[41] CNIEC's and China Minmetals' written response to a staff inquiry on June 28, 1991, pp. 6-7.
[42] Respondents' posthearing brief, p. 23.

CONSIDERATION OF THE CAUSAL RELATIONSHIP BETWEEN IMPORTS OF THE SUBJECT MERCHANDISE AND THE ALLEGED MATERIAL INJURY

U.S. Imports

In the course of the Commission's investigation, questionnaires were received from 22 U.S. importers.[43] The data received from the responding firms are believed to account for virtually all imports of refined antimony trioxide. As indicated in table 22, imports from China, in terms of quantity, fell 29 percent during 1988-90 and continued to decline, by 7 percent, in January-September 1991 compared with the corresponding period of 1990. The value of imports from China decreased 41 percent during 1988-90 and declined 17 percent in interim 1991 compared with interim 1990. China's share of total imports, in terms of quantity, has remained fairly constant during the period for which data were collected in the investigation, decreasing slightly from 68.5 percent in 1988 to 65.7 percent in 1990. For the interim periods,

---

[43] Two sets of import data were presented in the prehearing report: data based on the Commission's questionnaire responses and data based on adjusted official statistics from the U.S. Department of Commerce. As noted in the prehearing report, the imports entered under HTS subheading 2825.80.00 include both crude and refined antimony trioxide. For the prehearing report, the staff adjusted the official statistics (by subtracting the presumed imports of crude antimony trioxide) to reflect only imports of refined antimony trioxide (appendix G). For this final report, the staff examined the quantity and value of imports of antimony oxides, as reported in raw data provided by the U.S. Customs Service, on a firm-by-firm basis to determine why there were apparent discrepancies between the questionnaire data and adjusted official statistics.

The imports recorded in the Customs data for *** were identified by staff as crude antimony trioxide. The remaining imports were assumed to be refined antimony trioxide. The imports of both crude and refined antimony trioxide were then separated according to their country of origin. In terms of quantity and value, the Customs data showed a decrease in imports of refined antimony trioxide from China during the period for which data were collected. For the same period, the Customs data showed a steady increase in the quantity and value of the total imports of crude antimony trioxide.

To derive the adjusted official statistics, the staff calculated the amount of Chinese imports of refined antimony trioxide from ratios determined from the responses to the Commission's questionnaires. In its examination of the Customs data, the staff noted that the share of imports of refined antimony trioxide from China was more than what was reported in the Commission's questionnaires in 1988 and less in 1990, causing the ratios used to derive the adjusted official statistics to understate the imports of refined antimony trioxide from China in 1988 and overstate them in 1990. If similar ratios of crude to refined antimony trioxide calculated from the Customs import file were applied to the official statistics, the imports of refined antimony trioxide from China, by quantity and value, decreased during the period for which data were collected.

To determine if any major discrepancies existed with any individual firm, the staff compared the two sets of data on a firm-by-firm basis. Due to the fact that the comparison showed remarkable similarities with few exceptions, the staff concludes that the information obtained from the Commission's questionnaires is more reliable than the adjusted official statistics as presented in the prehearing report.

Table 22
Refined antimony trioxide: U.S. imports based on questionnaires,[1] by sources, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Quantity (1,000 pounds)				
China[2]	8,288	8,160	5,882	4,566	4,229
Hong Kong[3]	0	0	299	244	386
Subtotal	8,288	8,160	6,181	4,810	4,615
Other sources	3,809	3,296	2,769	2,226	1,981
Total	12,097	11,456	8,950	7,036	6,596
	Value (1,000 dollars)				
China	8,840	8,085	5,201	4,042	3,340
Hong Kong	0	0	225	185	364
Subtotal	8,840	8,085	5,426	4,227	3,704
Other sources	5,289	4,726	3,691	2,964	2,677
Total	14,129	12,811	9,117	7,191	6,381
	Unit value (per pound)				
China	$1.07	$0.99	$0.88	$0.89	$0.79
Hong Kong	(4)	(4)	.75	.76	.94
Subtotal	1.07	.99	.88	.88	.80
Other sources	1.39	1.43	1.33	1.33	1.35
Average	1.17	1.12	1.02	1.02	.97

[1] The data in the table are for 22 importers accounting for nearly 100 percent of total U.S. imports of refined antimony trioxide during 1990.
[2] Some of imports reported from China were actually transshipped through Hong Kong.
[3] All responding importers of refined antimony trioxide from Hong Kong have indicated that the origin of the product was China. Customs has been collecting cash deposits on at least some of these imports.
[4] Not applicable.

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

China's share of total imports in January-September 1991 was 64.1 percent compared to 64.9 percent in January-September 1990. The unit value for imports from China fell from $1.07 per pound in 1988 to $0.88 per pound in 1990, and continued to decline in interim 1991 to $0.79 per pound.

Data relating to the imports of crude antimony trioxide as reported in the Commission's questionnaire are presented in appendix H.

U.S. Producers' Imports

In response to the Commission's questionnaire, two U.S. producers reported imports of refined antimony trioxide during the period for which data were collected in the investigation. ***, and Amspec imported from the People's Republic of China ***. As indicated in table 23, the two producers' share of total U.S. imports of refined antimony trioxide was not insignificant during the period of investigation. The two producers' share of total U.S. imports averaged between *** and *** percent during the period for which data were collected. ***.

Table 23
Refined antimony trioxide: U.S. producers' imports,[1] by sources, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*	*

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

Market Penetration by the Subject Imports

China's share (excluding imports classified as from Hong Kong) of the quantity of apparent U.S. consumption of refined antimony trioxide decreased irregularly from 13.1 percent in 1988 to 11.9 percent in 1990 (table 24). China's market share during the interim periods remained fairly constant, decreasing only slightly by 0.3 percentage points. In terms of value, the decrease was from 11.3 percent in 1988 to 9.7 percent in 1990 and from 10.6 percent in interim 1990 to 10.3 percent in interim 1991.

The share of the market held by the U.S. producers increased slightly from 80.6 percent in 1988 to 82.8 percent in 1990. During the interim periods, their market share continued to increase, from 81.9 percent in January-September 1990 to 82.2 percent in January-September 1991. By value, the U.S. producers' market share also increased slightly from 82.0 percent in 1988 to 83.6 percent in 1990. Their market share remained fairly constant during the interim periods, declining only by 0.1 percentage point from interim 1990 to interim 1991.

Apparent U.S. consumption and market penetration calculated based on non-toll operations are presented in appendix I.

Table 24
Refined antimony trioxide: Shares of apparent U.S. consumption supplied by domestic producers, importers from China, and importers from all other countries,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Quantity (1,000 pounds)				
Producers' U.S. shipments	45,040	47,231	47,249	34,203	32,264
Importers' U.S. shipments:					
China	7,316	8,079	6,780	5,318	4,872
Hong Kong[2]	0	0	227	190	432
Subtotal	7,316	8,079	7,007	5,508	5,304
Other sources	3,535	3,107	2,781	2,037	1,705
Total	10,851	11,186	9,788	7,545	7,009
Apparent consumption	55,891	58,417	57,037	41,748	39,273
	Value (1,000 dollars)				
Producers' U.S. shipments	61,186	60,887	53,090	38,077	33,922
Importers' U.S. shipments:					
China	8,443	8,900	6,188	4,883	4,223
Hong Kong	0	0	196	165	349
Subtotal	8,443	8,900	6,384	5,048	4,572
Other sources[3]	4,960	5,151	4,023	2,927	2,593
Total	13,403	14,051	10,407	7,975	7,165
Apparent consumption	74,589	74,938	63,497	46,052	41,087
	Share of the quantity of U.S. consumption (percent)				
Producers' U.S. shipments	80.6	80.9	82.8	81.9	82.2
Importers' U.S. shipments:					
China	13.1	13.8	11.9	12.7	12.4
Hong Kong	0	0	.4	.5	1.1
Subtotal	13.1	13.8	12.3	13.2	13.5
Other sources	6.3	5.3	4.9	4.9	4.3
Total	19.4	19.1	17.2	18.1	17.8
	Share of the value of U.S. consumption (percent)				
Producers' U.S. shipments	82.0	81.2	83.6	82.7	82.6
Importers' U.S. shipments:					
China	11.3	11.9	9.7	10.6	10.3
Hong Kong	0	0	.3	.4	.8
Subtotal	11.3	11.9	10.1	11.0	11.1
Other sources	6.6	6.9	6.3	6.4	6.3
Total	18.0	18.8	16.4	17.3	17.4

[1] The data in the table are for 7 producers and 22 importers accounting for nearly 100 percent of total U.S. shipments of refined antimony trioxide during 1990.

[2] No importer reported imports from Macao.

[3] The value of U.S. shipments of imports from other sources is slightly undervalued. *** questionnaire response as reported by SICA included only the value of imports and not the value of domestic shipments.

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

Prices

Prices of the domestic and imported Chinese refined antimony trioxide vary according to several factors, including particle size, purity, the quantity purchased, and the addition of blending agents. Higher selling prices of U.S. producers and importers tend to be associated with very large or small particle sizes,[44] greater purity,[45] small-volume purchases, and the inclusion of blending agents.[46] Perceived and actual differences in the overall quality between the U.S.-produced and imported Chinese refined antimony trioxide can result in price differences among suppliers. As a result, although price is a major consideration, the lowest price does not always win the sale. Factors such as quality of physical product features, availability, reliability of delivery, and service are also important and discussed in the quality considerations section of the report.

Fees charged by U.S. producers to refine antimony trioxide on a toll basis can vary based on the quantity and type of raw material supplied. Refined antimony trioxide produced under tolling arrangements will be identified and discussed separately in this section.

---

[44] Particle sizes above 2 microns or below 1 micron generally carry a price premium over particle sizes ranging from 1 to 2 microns.

[45] Purity specifications that involve price premiums occur mostly in the small part of the market for the ultra-pure grade where overall purity is specified at approximately 99.8 percent and levels of certain individual contaminants must be controlled at very minute levels (0.001 percent or less); such contaminants include arsenic, lead, iron, and copper. For the bulk of the refined antimony trioxide market, however, specified overall purity levels range from 99.2 to 99.7 percent and differences in this range generally do not result in price differences. (Telephone conversation between *** and Commission staff on Oct. 23, 1991.)

[46] The actual impact of blending agents on selling prices is slight, as blending is usually performed by the end user or a compounder. (Commission staff telephone conversation with *** on Oct. 24, 1991.)

Marketing Practices

Refined antimony trioxide is sold on spot, blanket-order, and contract bases.[47] U.S. producers reported that about *** percent of their sales were on a spot or on a blanket-order basis where prices were determined at the time of shipment, and *** percent of their sales were on a contract basis. U.S. importers reported that about 53 percent of their imported refined antimony trioxide sold on a spot basis and 47 percent was by contract.

***.[48] ***. U.S. importers typically do not use price lists, although some use internal price sheets as a product guide. The importers indicated that they offer no schedule of quantity discounts, but negotiate prices on an individual customer basis. Sales terms of the U.S. producers and importers are typically net 30 days.

Reported order lead times of the U.S. producers and importers span 1 to 5 days for the domestic and imported Chinese refined antimony trioxide warehoused/inventoried in the United States. For special or out-of-stock items, reported lead times range from 5 to 14 days for U.S. producers and 1 to 2 months for the importers to obtain shipments from abroad.

U.S. producers and importers do not have specific minimum quantity requirements, but generally have a sharply higher price for very small orders. Small-order sizes vary among producers and among importers, with individual firms reporting small-size orders ranging from less than *** pounds to less than *** pounds.

Transportation and Packaging

U.S. producers reported selling their refined antimony trioxide nationwide, with over *** percent of their 1990 sales to U.S. customers more than 100 miles from their selling locations and *** percent to customers less

---

[47] U.S. producers' blanket orders and formal contracts are typically for one year and are frequently renegotiated for additional 1-year increments. Importers do not have blanket-order arrangements and their contracts generally extend for ***. Blanket orders are generally for an approximate amount of refined antimony trioxide over the period of agreement. Prices are negotiated based on the total blanket order and may be fixed for up to ***, but ***. Producer and importer contract terms vary considerably, from fixed prices and specified quantities and shipment dates for the full contract period, to an agreement to supply refined antimony trioxide at prices current at the time of shipment. U.S. producers' contracts typically stipulate a *** prior to any price changes during contract periods. The more flexible contract terms tend to result in prices that are similar to spot prices, reflecting market conditions at the time of shipment.

[48] U.S. producers' price lists/sheets typically contain a schedule of quantity discounts and prices by grades.

than 100 miles from their selling locations.[49] U.S. importers reported selling their Chinese refined antimony trioxide primarily in the eastern and midwestern parts of the United States; 57 percent of their sales was to U.S. customers more than 100 miles from their U.S. selling locations and 43 percent to customers less than 100 miles from their U.S. selling locations.[50]

Refined antimony trioxide is shipped in the U.S. market by truck. U.S. producers reported typical shipment sizes of 40,000 pounds (full truckload), whereas importers reported typical shipment sizes ranging from 5,000 pounds up to 3 truckloads at one time.[51]

U.S. producers sell most of their refined antimony trioxide on a delivered price basis.[52] U.S. importers sell their Chinese refined antimony trioxide on a U.S. f.o.b. warehouse basis, a c.i.f., duty-paid U.S. port of entry basis, and on a delivered price basis. The 4 responding U.S. producers and some of the importers reported that they generally arrange freight to their customers, but the majority of importers indicated that the purchaser typically arranges the freight.

Producers and importers have mixed opinions about the importance of transportation costs in a customer's purchase decision. Two of 4 producers and 8 of 15 importers that responded reported that U.S. freight costs are an important sourcing consideration for purchasers. The other 2 producers and 7 importers indicated that freight costs were not an important sourcing factor. Depending on the U.S. producer or importer reporting, U.S. freight charges ranged from *** percent of the supplier's U.S. selling price.

U.S. producers reported selling about *** percent of their refined antimony trioxide in 50-pound or 25-kilogram (about 55 pounds) bags, *** percent in bulk sacks,[53] *** percent in drums,[54] and *** percent in dry-bulk trucks.[55] The U.S. importers reported selling almost all of their Chinese imports in 25-kilogram bags, with the remainder, or less than *** percent, in bulk sacks. Reported list prices show a ***.[56]

---

[49] U.S. producers reported selling from their plant and U.S. warehouse locations. In addition to their plants located in Omaha, NE; Gloucester City, NJ; LaPorte, TX; and Laredo, TX, they specifically identified warehouses located in ***.

[50] U.S. importers reported selling from U.S. ports of entry and from their U.S. warehouse locations. Importers specifically identified warehouses located in ***.

[51] Importers selling from U.S. ports of entry sell some of their Chinese refined antimony trioxide in container loads, which are equal in weight to a truckload or approximately 40,000 pounds.

[52] ***.

[53] Bulk sack sizes ranged from 325 pounds to 2,000 pounds.

[54] Drum sizes ranged from 20 pounds to 400 pounds.

[55] Dry-bulk trucks carry about 40,000 pounds of refined antimony trioxide and are equipped to blow the contents into the customer's containers.

[56] ***. (Commission staff telephone conversation with *** on Oct. 9, 1991.)

Quality Considerations

Two of the 3 U.S. producers and 9 of the 12 importers responding in the questionnaire to the question regarding quality differences between the domestic and imported products indicated that the U.S. product was generally of a higher or more consistent quality. Superior or more consistent quality characteristics cited were uniformity of particle size, purity, color, crystallinity,[57] packaging, accurate product weights, reliable delivery, and product support/service. ***, a large end user of domestic refined antimony trioxide, indicated in its importer questionnaire that quality of this product is critical in the firm's end-use applications (fire retardant plastics) and that the Chinese material cannot meet *** specifications.[58]

There are conflicting reports as to the share of the U.S. refined antimony market that involves competition with the imported Chinese refined antimony trioxide. In response to a Commission inquiry of *** to clarify a questionnaire response, the firm estimated that roughly 25 percent of U.S. demand for refined antimony trioxide is in uses where quality reportedly is not critical, such as in the production of polyvinyl chloride, glass, and some ceramics products.[59] On the other hand, Mr. Carlos Tejada, vice president of Laurel, testified at the Commission hearing that the Chinese refined antimony trioxide is acceptable for 60 to 90 percent of U.S. market demand.[60] The respondents asserted at the hearing that less than 25 percent of the U.S. refined antimony trioxide market is subject to competition with the imported Chinese products.[61]

Responses from a limited number of end users contrasted with information from producers and importers.[62] Nine of the 15 firms responding in the purchaser questionnaire about quality indicated that the domestic and imported Chinese refined antimony trioxide are comparable in quality,[63] and 6 firms indicated that the quality of the Chinese product was inferior to that of the

---

[57] ***. (Commission staff telephone conversation with *** on Jan. 29, 1992).

[58] ***.

[59] Commission staff telephone conversation with *** on Jan. 29, 1992.

[60] Transcript, p. 27.

[61] Transcript, pp. 92, 98, and 108.

[62] Fifteen end users provided at least some response to questions in the purchaser questionnaire regarding quality of the domestic and imported Chinese products. The responding end users accounted for 14 percent of total U.S. shipments of U.S.-produced refined antimony trioxide during 1990 and 15 percent of total U.S. shipments of the imported Chinese products during this period.

[63] Four of these 9 firms use *** refined antimony trioxide, 1 firm uses only the ***, and 4 firms use only the ***.

Six of the 9 firms that indicated quality was comparable reported that they are able to use various grades of refined antimony trioxide in their products, which included ***. Three of the 9 firms indicated that only a single grade, high-tint, of refined antimony trioxide was acceptable in their products, which included ***.

domestic product.[64] [65] One of the 6 latter firms, *** cited specific quality disadvantages of the imports, which, compared to the U.S. product, included poorer color, a less concentrated particle size distribution, and a higher proportion of other metals. Four of the 6 firms, ***, indicated that they were willing to pay a price premium for the higher quality domestic refined antimony trioxide than for the imported Chinese product. *** indicated that it is willing to pay a *** percent price premium for the domestic product and *** indicated that it is willing to pay a premium of *** percent; the other two firms did not specify the amount of the price premium.

Three of the 9 end-user firms that considered quality comparable provided additional comments, which appear to qualify somewhat their assertions regarding quality. *** indicated that although quality is comparable, the firm still pays a price premium of *** percent for the domestic product to assure access to a domestic source.[66] *** qualified its comment on comparability by indicating that the firm used only domestic refined antimony trioxide in the production of the ***,[67] and used the Chinese refined antimony trioxide in the jacket coverings. *** reported using both the domestic refined antimony trioxide produced by *** and the imported Chinese product. The latter end user reported that it paid a premium for the domestic product vis-a-vis the imported product to maintain the excellent sales and service relationship it has with ***.

Four of 8 distributors responding in the purchaser questionnaire about quality indicated that the domestic and imported Chinese refined antimony trioxide are comparable in quality;[68] one firm indicated that the quality of the Chinese product is superior;[69] and 3 firms indicated that the quality of

---

[64] Five of the 6 firms that considered quality of the Chinese products inferior use only the domestic refined antimony trioxide, and one firm, ***, reported using the ***. Three of the 5 firms reported using only ***. Two firms reported using only ***.

[65] Based on the 15 responding end users' total purchases of domestic and imported Chinese refined antimony trioxide during 1990, the 6 firms that reported the Chinese products were inferior in quality accounted for almost 68 percent, or 5 million pounds, of the total 7.4 million pounds reported. These 6 end users reported purchasing almost all U.S.-produced products, whereas the other 9 end users reported buying 1.4 million pounds of the domestic products and 1 million pounds of the imported Chinese products.

[66] The firm cited the importance of domestic delivery and service in case any problems arise with the Chinese product.

[67] ***. (Commission staff telephone conversation with *** on Mar. 4, 1992.)

[68] Two of the firms indicating that quality was comparable purchase only the imported Chinese product and 2 firms purchase both the domestic and imported products. One of these latter firms, ***, reported buying the higher priced domestic product to obtain prompt delivery.

[69] ***. (Commission staff telephone conversation with *** on Mar. 4, 1992.)

the Chinese product is inferior to that of the domestic product.[70] Of the 3 firms citing inferior quality of the imported Chinese product, *** cited specific quality disadvantages of the imports, which, compared to the U.S. product, included greater bag-to-bag variations in quality, a more limited offering of different product specifications, no certificates of analysis, and a greater proportion of sieve residues (coarse particles). Another firm asserting inferior quality of the Chinese product, ***, indicated that the firm is willing to pay a price premium of *** percent for the higher quality domestic product.[71] The third distributor citing inferior quality ***.

Tolling Factors

Of the three U.S. producers reporting on their tolling services, ***.[72] ***.[73]

Questionnaire Price Data

The Commission requested quarterly pricing data for the three refined antimony trioxide products described below.[74] None of the specified products contain blending agents.

PRODUCT 1: **High-tint grade**.--Dry refined antimony trioxide with Sb_2O_3 between 99.2 and 99.7 percent, inclusive, uniform particle size from 1.0 micron up to, but not including, 1.8 microns, and white color is a requirement.

---

[70] The 8 responding distributors accounted for 1 percent of total U.S. shipments of U.S.-produced refined antimony trioxide during 1990 and 54 percent of total U.S. shipments of the imported Chinese products during this period. Based on the 8 responding distributors' total purchases of domestic and imported Chinese refined antimony trioxide during 1990, the 3 firms reporting that the Chinese products were inferior in quality accounted for almost 85 percent, or 3.5 million pounds, of the total 4.2 million pounds reported. These 3 distributors reported purchasing mostly the imported Chinese products, whereas the other 5 distributors reported buying 580,000 million pounds of the imported products and 82,000 pounds of the domestic products.

[71] ***.

[72] ***.

[73] ***. (Commission staff telephone conversation on Feb. 6, 1992).

[74] *** indicated during preparation of the questionnaires for the final investigation that these refined antimony trioxide products constituted the majority of refined antimony trioxide sold in the U.S. market and were representative of the competition between the U.S.-produced and imported Chinese refined antimony trioxide. (Commission staff telephone conversations with *** on Oct. 9-15, 1991).

PRODUCT 2: **Low-tint grade.**--Dry refined antimony trioxide with Sb_2O_3 between 99.2 and 99.7 percent, inclusive, uniform particle size from 1.8 to 3.5 microns, inclusive, and white color is a requirement.

PRODUCT 3:[75] **Generic.**--Dry refined antimony trioxide with Sb_2O_3 between 99.2 and 99.7 percent, inclusive, mixed particle sizes from 1.0 to 2.0 microns, inclusive, and no color requirement where color may range from white to slightly tan or pink.

U.S. producers and importers

The Commission requested U.S. producers and importers to provide quarterly price data during January 1988-September 1991 for products 1-3.[76] The price data were requested on net U.S. delivered and f.o.b. bases for the responding firms' largest quarterly sales and total quarterly sales to end users and to distributors. Two U.S. producers, ***,[77] reported the requested price information for all 3 domestic specified products and *** provided prices but no quarterly quantities. Fourteen importers provided price data for the imported products 1 and 3, but not necessarily for both products and all periods specified. No sales of imported Chinese product 2 were reported.

The three responding U.S. producers provided price information for products accounting for *** percent of the quantity of total domestic shipments of non-toll produced refined antimony trioxide during January 1988-September 1991; the responding importers provided price information for products accounting for 65 percent of the quantity of total reported U.S. shipments of refined antimony trioxide from China during this period.[78]

About *** percent of the U.S. producers' sales quantity for which pricing data were reported involved selling prices of the domestic products to end users, whereas 70 percent of the importers' sales quantity involved selling prices of the Chinese products to distributors. By product, about *** percent of U.S. producers' selling price data involved sales of the domestic product 1 (high-tint grade), about *** percent involved product 3 (generic), and *** percent involved product 2 (low-tint grade). Almost 66 percent of U.S. importers' selling price data was for sales of the Chinese product 3 and 34 percent for sales of the Chinese product 1. Almost all of the U.S.

---

[75] U.S. producers market a generic type of refined antimony trioxide under distinct brand names separate from their high-tint brand names. They reportedly use the generic product to compete with the imported Chinese product, although the imported products are not sold as distinct grades. As indicated earlier, some end users reported that they were able to use the high-tint or generic product in their end-use applications, whereas others reported that they could use only the high-tint grade. For pricing purposes, the generic refined antimony trioxide will be discussed as a distinct product.

[76] The requested price data did not include refined antimony trioxide produced on a toll basis.

[77] ***.

[78] ***. The firm was unable to provide any pricing data in the final investigation.

producers' net selling price data was on a delivered basis, whereas only 36 percent of the importers' U.S. net selling price data was on a delivered basis and the remaining 64 percent was on a net U.S. f.o.b. basis. Price trends and price comparisons are shown separately by product grade, type of customer, and the type of selling price basis. Because of the fundamental differences in their way of doing business, however, direct competition is limited for some products shipped to the same type of customers sold on the same terms.[79]

Purchasers

The Commission also requested both end users and distributors to provide quarterly delivered purchase prices and quantities for the specified refined antimony trioxide products purchased during January 1989-September 1991. The price data were requested for each responding firm's largest quarterly purchase and total quarterly purchases. Costs of refined antimony trioxide obtained on a toll basis were also requested from purchasers. The 64 firms that were sent purchaser questionnaires were large buyers as reported by U.S. producers and importers. Twenty end users and 5 distributors reported at least some of the requested price data. The 25 firms provided price/cost information for products purchased on a non-toll and toll basis that accounted for about 32 percent of the total quantity of U.S. producers' domestic shipments of their U.S. toll- and non-toll-produced refined antimony trioxide during January 1989-September 1991,[80] and 48 percent of reported U.S. imports from China during this period.

End users reported all the purchase price data for the U.S.-produced products, while end users accounted 38 percent of the purchase price data for the imported Chinese products and distributors accounted for 62 percent. The majority of the purchase price data for U.S.-produced and imported Chinese refined antimony trioxide involved purchases of product 1, accounting for 90 percent of the total reported volume of purchases of U.S.-produced refined antimony trioxide and 93 percent of the total reported purchases of imported Chinese refined antimony trioxide.[81] Product 2 accounted for 7 percent and product 3 for the remaining 3 percent of the U.S. product, whereas product 3

---

[79] A majority of the pricing data reported by U.S. producers involved product 1 sold to end users on a delivered price basis, accounting for about 77 percent of the sales quantity for which pricing data were reported. On the other hand, 43 percent of the importers' price data involved product 3 and 10 percent involved product 1 sold to distributors on a U.S. f.o.b. price basis.

[80] Purchasers' price data reported for the domestic refined antimony trioxide bought on a non-toll basis accounted for 20 percent of total U.S. producers' domestic shipments of the U.S. non-toll-produced refined antimony trioxide during this period.

[81] A majority of the pricing data for the U.S.-produced refined antimony trioxide reported by purchasers involved product 1 purchased by end users, accounting for 90 percent of the quantity of the price data for the domestic products. A majority of the importers' price data also involved product 1, with distributors' purchases accounting for 62 percent and end users' purchases accounting for 31 percent of the quantity of the price data for the Chinese products.

accounted for the remaining 7 percent of the Chinese product. Price trends and price comparisons are shown separately by product grade and type of purchaser.

Price trends

Price trends of U.S.-produced and imported Chinese refined antimony trioxide were based on net U.S. delivered and f.o.b. selling prices to end users and to distributors reported in producers' and importers' questionnaire responses,[82] and also on delivered prices reported in purchaser questionnaire responses of end users and distributors.

United States.--Weighted-average quarterly selling prices and quantities of the specified U.S.-produced refined antimony trioxide products reported by *** are shown in tables 25 and 26 for U.S. producers' sales on a net delivered and a U.S. f.o.b. basis, respectively. *** reported selling price data that did not include total quarterly quantities and therefore could not be aggregated with the price data reported by ***. *** producer price data, which are based on delivered prices only, are shown separately in table 27. Quarterly net delivered purchase prices and quantities of the domestic products reported by end users are shown in table 28; distributors did not report any purchase price data for the U.S.-produced products.

Quarterly delivered prices of domestic products 1-3 sold to end users fluctuated but fell over the periods reported,[83] whereas trends in delivered selling prices of domestic products 1 and 2 sold to distributors tended to be mixed (tables 25 and 27).[84] U.S. producers' selling prices to end users show a distinct decline in prices at the end of 1989 or the beginning of 1990 and again at the beginning of 1991. Quarterly net U.S. f.o.b. prices of product 1 sold to distributors by ***[85] fluctuated but fell during the few quarters reported (table 26).[86]

---

[82] U.S. producers' reported selling prices to distributors were almost always higher than selling prices to end users, whereas importers frequently reported lower selling prices to distributors than to end users. Such differences in pricing patterns between the U.S. producers and importers are at least partially explained by the volume of sales, as U.S. producers sell much smaller volumes to distributors than end users, while for the importers the reverse is true.

[83] *** reported prices of product 3 sold to end users that were based on limited sales quantities (table 25). These reported prices appear to rise somewhat over the period reported. But *** reported prices of product 3 sold to end users, based on significantly higher sales quantities than that for ***, fell over the period reported (table 27).

[84] U.S. producers did not report any prices of product 3 sold to distributors.

[85] *** did not report any sales of their refined antimony trioxide products on an f.o.b. price basis.

[86] *** also reported net f.o.b. prices of product 3 sold to end users for two quarters, which was insufficient to derive a meaningful price trend (table 26).

Table 25
Net U.S. delivered selling prices and quantities of U.S.-produced refined antimony trioxide reported by ***, by specified grades, by types of customers, and by quarters, January 1988-September 1991[1]

Period	Product 1 (high-tint grade)				Product 2 (low-tint grade)			
	Sales to end users		Sales to distributors		Sales to end users		Sales to distributors[2]	
	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds
	*	*	*	*	*	*	*	

[1] Prices of specified grades of the domestic refined antimony trioxide are, unless otherwise noted, averages of the net U.S. delivered quarterly selling prices of the two responding U.S. producers' largest quarterly sales of each specified grade to each type of customer weighted by each firm's total quarterly sales quantity of each grade to each type of customer. Quantities shown are the total quarterly sales volumes.
[2] Data for ***.

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

Table 26
Net U.S. f.o.b. selling prices and quantities of *** U.S.-produced refined antimony trioxide, by specified grades, by types of customers, and by quarters, January 1988-September 1991[1]

Period	Product 1 (high-tint grade) Sales to distributors		Product 3 (generic) Sales to end users	
	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds
	*	*	*	*

[1] Prices of specified grades of the domestic refined antimony trioxide are *** net U.S. f.o.b. quarterly selling prices of its largest quarterly sales of each specified grade to each type of customer. Quantities shown are *** total quarterly sales volumes by the specified grades and types of customers. ***.

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

Table 27
Net U.S. delivered selling prices of *** U.S.-produced refined antimony trioxide, by specified grades, by types of customers, and by quarters, January 1988-September 1991[1] [2]

(Per pound)

Period	Product 1 (high-tint grade)		Product 2 (low-tint grade)		Product 3 (generic)
	Sales to end users	Sales to distributors	Sales to end users	Sales to distributors	Sales to end users
	*	*	*	*	*	*	*

[1] Prices of specified grades of *** U.S.-produced refined antimony trioxide are the net U.S. delivered quarterly selling prices of the firm's largest quarterly sales of each specified grade to each type of customer.

[2] *** reported total period sales quantities of the specified grades of refined antimony trioxide, by types of customers, for each year during 1988-90 and January-September 1991. These quantities are shown in thousands of pounds in the tabulation below.

*	*	*	*	*	*	*

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

Table 28
Net U.S. delivered purchase prices and quantities of U.S.-produced refined antimony trioxide purchased by end users, by specified grades and by quarters, January 1989-September 1991[1]

Period	Product 1 (high-tint grade)		Product 2 (low-tint grade)		Product 3 (generic)	
	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds
	*	*	*	*	*	*	*

[1] Prices of specified grades of the domestic refined antimony trioxide, unless otherwise noted, are averages of the net U.S. delivered quarterly purchase prices of the responding U.S. end users' largest quarterly purchases of each specified grade weighted by each firm's total quarterly purchase quantity of each grade. Quantities shown are the total quarterly purchase volumes.

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

Based on purchaser questionnaire responses, end users reported declining quarterly delivered purchase prices for the domestic products 1-3 during January 1989-September 1991; such price declines were generally somewhat smaller than those found in data from U.S. producers during this period and typically involved a smaller volume of sales than reported by U.S. producers (table 28).[87] End users' purchase prices of the domestic product 1 showed a sharp decline in early 1990 and again at the beginning of 1991; sharp declines also occurred in the beginning of 1990 for product 2 and in mid-1990 for product 3.

As prices of the responding U.S. producers declined during 1988-91, their costs of raw materials, including the intermediate antimony material, also declined.[88] According to petitioners, China is the world's largest supplier of intermediate antimony materials and has depressed their prices.[89] U.S. producers import ***.

*** selling prices.--*** reported quarterly delivered selling prices of domestic products 1 and 2 sold to end users fell over the periods reported, with declines of almost *** percent, respectively, whereas delivered selling prices of products 1 and 2 sold to distributors and product 3 to end users rose, with increases ranging from about *** percent (table 25). Fluctuations in the prices shown in table 25 are sometimes associated with changes in ***.[90] A fluctuating price series sometimes also occurs when, for one or more quarters, ***. Detailed explanations that could be obtained for individual major price changes are included in the following discussion of price trends.

*** delivered weighted-average prices of domestic product 1 (high-tint grade) sold to end users, the largest volume product and group of customers for U.S. producers, rose from *** per pound during January-March 1988 to *** per pound during July-September 1989, then fell significantly in October-December 1989 and again in early 1991, ending the period at *** per pound in July-September 1991, or almost *** percent below the initial-period value. ***.[91]

---

[87] The only exception involved comparisons with the trend in selling prices of product 3 to end users reported by ***. In comparison with *** selling prices of product 3 to end users, however, trends in the end users' prices showed the typical pattern of falling less than that for the U.S. producer. *** selling prices of product 3 to end users were based on significantly larger volumes than those of ***.

[88] This pattern was based on questionnaire responses of U.S. producers regarding the requested financial information. As indicated earlier in the report in the financial section, raw material costs of the U.S. producers declined as a percent of their net sales.

[89] Tr. pp. 23-25 and p. 51.

[90] ***. (Commission staff telephone conversation with *** on Feb. 5, 1991).

[91] ***. (Commission staff telephone conversation with *** on Jan. 31, 1992).

*** delivered prices of domestic product 1 sold to distributors fell erratically from *** per pound in January-March 1988 to *** per pound in January-March 1991, or about *** percent lower than the initial-period value. The sharply higher quarterly prices of *** per pound shown in July-September 1990 and April-September 1991 and the prices reported during January-June 1988 reflect prices reported by ***, the only one of the two firms reporting prices during these quarters.[92] All other quarterly prices shown are weighted-averages of both firms' prices.

Delivered prices of product 2 sold to end users rose from *** per pound in January-March 1988 to *** per pound by October-December 1988, fell to *** per pound in January-March 1989, and remained at this latter level through January-March 1990; during this period only *** reported selling price data. During April 1990-September 1991, both *** reported prices of product 2 sold to end users. The calculated weighted-average price was *** per pound in April-June 1990, down sharply from *** price of *** per pound in the previous quarter.[93] The weighted-average price then declined further to *** per pound in July-September 1991, or about *** percent below the initial value reported by *** in January-March 1988. *** accounted for the sharply lower weighted-average prices beginning in the second quarter of 1990 and again in the first quarter of 1991, reflecting its reported prices to ***.[94]

Delivered prices of product 2 sold to distributors, reported only by ***,[95] rose from *** per pound in January-March 1988 to *** per pound in July-September 1988, or by about *** percent; prices of product 2 then remained at this latter level through July-September 1991.

Delivered prices of product 3 sold to end users fell from *** per pound in July-September 1989 to *** per pound in the next quarter and remained at this level through July-September 1990; during this period only *** reported selling price data. The weighted-average price of product 3 based on prices reported by both *** was *** per pound in July-September 1990 and *** per pound in July-September 1991, the only two quarters that ***.[96] Quarterly fluctuations in prices during January-June 1991 occurred as only *** prices were reported; *** accounted for the high price of *** per pound and *** for the low price of *** per pound as ***.

*** reported net f.o.b. prices of product 1 sold to distributors fell from *** per pound in January-March 1988 to *** per pound in July-September 1990, then fell to a period low of *** per pound by April-June 1991, before

---

[92] The period-ending price of *** per pound, reported by ***, was about *** percent higher than the firm's beginning-period price of *** per pound during January-March 1988.

[93] *** price also fell in April-June 1990, to *** per pound.

[94] ***. (Commission staff telephone conversation with *** on Jan. 31, 1992).

[95] *** did not report any prices of product 2 sold to distributors.

[96] These latter prices were heavily influenced by *** reported prices. The third quarter 1991 price was about *** percent higher than the initial-period value reported by *** in July-September 1989.

rising somewhat to *** per pound in July-September 1991, ending the period almost *** percent below the initial-period value (table 26).[97]

*** selling prices.[98]--*** reported quarterly delivered selling prices of domestic products 1-3 sold to end users fell over the periods reported, with declines ranging from ***. Delivered selling price data for product 1 sold to distributors are scant, but showed increases, while prices of product 2 sold to distributors held steady (table 27).[99]

*** delivered prices of domestic product 1 sold to end users fell from *** per pound during January-March 1988 to *** per pound by July-September 1991, to end the period about *** percent below the initial-period value.[100] *** reported delivered prices of domestic product 1 sold to distributors were *** per pound in April-June and October-December 1988, and *** per pound during July-December 1989.

*** delivered prices of product 2 sold to end users fell from *** per pound during January-March 1988 to *** per pound by July-September 1991, or by about *** percent.[101] *** reported quarterly delivered prices of product 2 sold to distributors remained unchanged at *** per pound during January 1988-September 1991.

*** delivered prices of product 3 sold to end users remained at *** per pound from January-March 1988 through January-March 1990, fell markedly to *** per pound in October-December 1990, and fell again in the following quarter to *** per pound. *** price remained at this latter level through July-September 1991 to end *** percent below the initial-period value. The sharply lower prices beginning in October-December 1990 marked a switch in *** for which the price data were reported.[102]

End users' purchase prices.--End users' reported quarterly delivered purchase prices of domestic products 1-3 fell during January 1989-September 1991, with full-period declines of *** percent for products 1 and 2 and *** percent for product 3 (table 28). The prices reported by end users showed trends similar to those reported by U.S. producers.

---

[97] According to ***, the sharply lower net f.o.b. prices of product 1 to distributors beginning in July-September 1990, particularly the *** per pound in April-June 1991, were the result of competition with the imported Chinese refined antimony trioxide. (Commission staff telephone conversation with *** on Jan. 31, 1992.)

[98] *** selling prices are shown separately because the firm could not provide quantity information necessary to combine its data with other producers' data.

[99] *** did not report any prices of product 3 sold to distributors.

[100] ***. (Commission staff telephone conversation with *** on Jan. 31, 1992).

[101] ***. (Commission staff telephone conversation with *** on Jan. 31, 1992.)

[102] ***. (Commission staff telephone conversation with *** on March 10, 1992.)

Imports from China.--Quarterly selling prices and quantities of the specified Chinese refined antimony trioxide products reported in importer questionnaires are shown in tables 29 and 30 for U.S. sales on a net delivered and U.S. f.o.b. basis, respectively. Quarterly net delivered purchase prices and quantities reported by end users and distributors are shown in table 31.

Both quarterly net delivered and U.S. f.o.b. selling prices of the imported Chinese products 1 and 3 sold to end users and to distributors fluctuated but fell, with declines ranging from *** to *** percent over the periods reported (tables 29 and 30).[103] Sharp drops in the reported prices often occurred during one of the first three quarters of 1990; such changes do not appear to be associated with a change in the number of firms reporting each quarter. The trends in importers' reported prices were similar to those shown in U.S. producers' price data.

End users reported delivered purchase prices for the imported products 1 and 3 and distributors reported their purchase prices of the imported product 1 during January 1989-September 1991 (table 31). Prices of these products reported by both end users and distributors also fell during this period. The declines in end users' reported prices of products 1 and 3 were greater than the declines shown in the importers' price data for these products sold to end users. The decline in distributors' reported purchase prices of product 1 was less than that shown by importers' prices of product 1 sold to distributors.

Delivered prices of the imported Chinese products 1 and 3 purchased by end users and the imported product 1 purchased by distributors showed sharp declines in early 1990 and, for product 3 purchased by end users, also in the first quarter of 1991. Purchase quantities reported by end users and distributors for product 1 were larger than the product 1 sales volumes to end users and distributors reported by importers. Purchase quantities reported by end users for product 3 were less than importers' sales volumes of product 3 to end users.

---

[103] U.S. importers did not report any selling prices of product 2.

Table 29
Net U.S. delivered selling prices and quantities of refined antimony trioxide imported from China, by specified grades, by types of customers, and by quarters, January 1988-September 1991[1]

Period	Product 1 (high-tint grade)				Product 3 (generic)			
	Sales to end users		Sales to distributors[2]		Sales to end users		Sales to distributors	
	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds
	*	*	*	*	*	*	*	

[1] Prices of specified grades of the imported Chinese refined antimony trioxide are averages of the net U.S. delivered quarterly selling prices of the responding importers' largest quarterly sales of each specified grade to each type of customer weighted by each firm's total quarterly sales quantity of each grade to each type of customer. Quantities shown are the total quarterly sales volumes.
[2] Selling prices of a single importer, ***.

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

Table 30
Net U.S. f.o.b. selling prices and quantities of refined antimony trioxide imported from China, by specified grades, by types of customers, and by quarters, January 1988-September 1991[1]

Period	Product 1 (high-tint grade)				Product 3 (generic)			
	Sales to end users		Sales to distributors		Sales to end users		Sales to distributors	
	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds
	*	*	*	*	*	*	*	

[1] Prices of specified grades of the imported Chinese refined antimony trioxide are, unless otherwise noted, averages of the net U.S. f.o.b. quarterly selling prices of the responding importers' largest quarterly sales of each specified grade to each type of customer weighted by each firm's total quarterly sales quantity of each grade to each type of customer. Quantities shown are the total quarterly sales volumes.

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

Table 31
Net U.S. delivered purchase prices and quantities of refined antimony trioxide imported from China, by specified grades, by types of purchasing customers, and by quarters, January 1989-September 1991[1]

Period	Product 1 (high-tint grade) Purchased by end users		Product 1 (high-tint grade) Purchased by distributors		Product 3 (generic) Purchased by end users	
	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds	Price Per pound	Quantity 1,000 pounds
	*	*	*	*	*	*

[1] Prices of specified grades of the imported Chinese refined antimony trioxide are averages of the net U.S. delivered quarterly purchase prices, by type of purchaser, of the responding firms' largest quarterly purchases of each specified grade weighted by each firm's total quarterly purchase quantity of each grade. Quantities shown are the total quarterly purchase volumes.

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

Importers' selling prices.--On a delivered selling price basis, importers' selling prices of products 1 and 3 fell, with declines ranging from *** percent (table 29); on a U.S. f.o.b. selling price basis, their selling prices of these products fell in a range of *** percent (table 30). Price trends for the two largest volume categories, product 3 sold to end users on a delivered price basis (table 29) and product 3 sold to distributors on a U.S. f.o.b. price basis (table 30), are discussed below.[104]

Quarterly delivered prices of the imported product 3 sold to end users fell from *** per pound in January-March 1988 to *** per pound by October-December 1989, or by *** percent, and then dropped another *** percent three quarters later to *** per pound. Prices of product 3 to end users continued to fall to a period low of *** per pound by January-March 1991, before rising somewhat to end the period at *** per pound, or *** percent below the initial-period value.

Quarterly f.o.b. prices of imported product 3 sold to distributors fell from *** per pound in January-March 1988 to *** per pound by October-December 1989, or by *** percent, and then dropped another *** percent the following quarter to *** per pound. Prices of product 3 sold to distributors continued to decline, ending the period at *** per pound in July-September 1991, or *** percent below the initial-period value.

[104] The delivered price sales of product 3 to end users accounted for 14 percent of the total quantity of importers' price data and the f.o.b. price sales of product 3 to distributors accounted for 43 percent of importers' price data.

End users and distributors' purchase prices.--As with the U.S.-produced products, purchase prices reported by end users generally paralleled those reported by importers of the Chinese products. End users' reported quarterly delivered purchase prices of the imported Chinese products 1 and 3 fell during January 1989-September 1991, with full-period declines of *** percent, respectively (table 31). Distributors' reported quarterly delivered purchase prices of the imported Chinese product 1 fell *** percent during this period (table 31).

Price comparisons

The price comparisons discussed on the following pages should be viewed with caution as significant differences in quality between the domestic and imported refined antimony trioxide were noted by several U.S. producers, importers, end users, and distributors.[105] Some of the purchasers also reported that they were willing to pay a price premium for the domestic product, which ranged from *** to *** percent depending on the responding firm. It should be noted, however, that several other firms reported that the quality of the domestic and imported products was comparable.[106]

In addition to quality differences, distinctions in the way the domestic and imported refined antimony trioxide are sold in the U.S. market also make it difficult to compare prices.[107] U.S. producers sell a majority of their products directly to end users on a delivered price basis (*** percent of reported price data),[108] while importers sell a majority of the Chinese products to distributors on a U.S. f.o.b. price basis (*** percent of reported price data).[109]

---

[105] Quality considerations between the domestic and imported Chinese refined antimony trioxide included differences in physical product features, product availability, reliability of delivery, and service.

[106] Three of these latter firms qualified their assertions somewhat; 1 firm noted some differences in acceptance of the domestic and imported products and 2 other firms suggested that the domestic producers offer a more reliable supply and better service.

[107] Differences in the sales volume of product grades of the domestic and imported refined antimony trioxide reduce the number of price comparisons. Product 1 (high-tint grade) accounted for 82 percent of the pricing data reported by U.S. producers, whereas product 3 (generic) accounted for 66 percent of the pricing data reported by importers. U.S. producers reportedly use the generic product, which accounted for almost 12 percent of their pricing data, to compete with the imported Chinese product, although the imported products are not sold as distinct grades. Some end users reported that they could use either product 1 or product 3, but other end users indicated that they could use only product 1.

[108] Only end users reported purchase price data of the U.S.-produced refined antimony trioxide.

[109] Distributors accounted for 62 percent of the total reported purchase price data for the imported Chinese refined antimony trioxide.

Quarterly price comparisons between U.S.-produced refined antimony trioxide and the products imported from China were developed from net U.S. delivered and f.o.b. prices reported in the U.S. producers' and importers' questionnaires,[110] and from net delivered prices reported in the purchaser questionnaires.[111] Price comparisons based on producer and importer questionnaire responses are shown separately for sales to end users and to distributors and indicated that the imported products were generally priced lower than the U.S.-produced products. The price comparisons involving product 1 showed less underselling, or overselling, when compared to the consistent underselling shown for product 3. The purchaser price comparisons involving product 1 showed greater underselling by the imported product than that shown by the producer and importer questionnaires. On the other hand, purchaser price comparisons involving product 3 showed that the imported product was generally priced higher than the domestic product, whereas selling price data reported by producers and importers showed underselling. The latter purchaser price comparisons involving product 3 were based on very limited volumes of the domestic and imported product reported only by end users, accounting for only 4 percent of the total quantity of price data reported by purchasers.[112]

Delivered price comparisons based on U.S. producers' and importers' reported price data.--Quarterly price comparisons between the domestic and imported Chinese refined antimony trioxide based on net delivered selling prices reported in the producer and importer questionnaires are shown in table 32 for the domestic prices reported by ***, and in table 33 for the domestic prices reported by ***. The price comparisons shown in tables 32 and 33 involved product 1 sold to end users and to distributors, and product 3 sold

---

[110] Most of the price comparisons based on producer and importer questionnaires are on a delivered price basis, as U.S. producers generally sell their products on a delivered basis. *** was the only U.S. producer reporting U.S. f.o.b. selling prices. Price comparisons are shown separately for sales to end users and sales to distributors.

[111] Price comparisons based on delivered prices reported in purchasers' questionnaires were limited to products 1 and 3 purchased by end users.

[112] Purchase price data for the domestic and imported product 3 reported by end users on a delivered price basis totaled 1.4 million pounds, whereas delivered selling price data for product 3 sold to end users reported by producers and importers totaled 13.5 million pounds. As a result, the price comparisons based on producer and importer price data for product 3 are likely to be a more accurate measure than those based on purchaser price data for this product.

Table 32
Margins of under/(over)selling[1] between U.S.-produced and imported Chinese refined antimony trioxide based on net DELIVERED SELLING prices reported by *** U.S. producers, ***, and by importers, by specified products, by types of customers, and by quarters, January 1988-September 1991

Period	Product 1 (high-tint grade)				Product 3 (generic)	
	Sales to end users		Sales to distributors		Sales to end users	
	Per pound	Percent	Per pound	Percent	Per pound	Percent
	*	*	*	*	*	*

[1] The percentage price differences between the U.S. and imported Chinese refined antimony trioxide were calculated as differences from the U.S. producers' price. Figures in parentheses indicate that the price of the imported product was higher than the price of the domestic product during that quarter.

Note: Percentage margins are calculated from the unrounded prices.

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

Table 33
Margins of underselling[1] between *** U.S.-produced refined antimony trioxide and the imported Chinese products based on reported net DELIVERED SELLING prices, by specified products, by types of customers, and by quarters, January 1988-September 1991

Period	Product 1 (high-tint grade)				Product 3 (generic)	
	Sales to end users		Sales to distributors		Sales to end users	
	Per pound	Percent	Per pound	Percent	Per pound	Percent
	*	*	*	*	*	*

[1] The percentage price differences between the U.S. and imported Chinese refined antimony trioxide were calculated as differences from *** U.S. producer prices.

Note: Percentage margins are calculated from the unrounded prices.

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

to end users.[113] The price comparisons involving sales of the domestic and imported product 1 sold to end users showed lower levels of underselling, and some instances of overselling, compared to greater and consistent underselling on sales of product 1 to distributors and product 3 to end users.

Based on the reported delivered prices from producer and importer questionnaire responses, a total of 37 price comparisons were possible between imports and the average prices of ***. Thirty-three price comparisons were also possible between prices of imports and those of ***. These comparisons, however, should not be viewed as a total of 70 distinct and separate instances.[114]

Delivered price comparisons involving reported prices of *** and U.S. importers (table 32).--Ten of the 14 quarterly delivered price comparisons involving the domestic and imported product 1 sold to end users showed underselling by the imported product, with margins of underselling averaging *** percent.[115] All 14 price comparisons involving product 1 sold to distributors and all 9 price comparisons involving product 3 sold to end users showed underselling by the imported product, with margins of underselling averaging *** percent and *** percent, respectively.[116]

Delivered price comparisons involving reported prices of *** and U.S. importers (table 33).--All 14 quarterly delivered price comparisons involving the domestic and imported product 1 sold to end users showed underselling by the imported product, with margins of underselling averaging *** percent. All 4 price comparisons involving product 1 sold to distributors and all 15 quarterly delivered price comparisons involving product 3 sold to end users show underselling by the imported product, with margins of underselling averaging *** percent and *** percent, respectively.

Delivered price comparisons based on purchasers' reported price data.--Quarterly price comparisons between the domestic and imported Chinese refined antimony trioxide based on net delivered purchase prices reported by end users are shown in table 34. These price comparisons involved the

---

[113] Product 1 sold to end users on a delivered price basis accounted for 77 percent of the total quantity of U.S. producers' price data and 6 percent of the total quantity of the importers' price data. Product 1 sold to distributors on a delivered price basis accounted for 5 percent of U.S. producers' price data and 9 percent of the importers' price data. Product 3 sold to end users on a delivered price basis accounted for 11 percent of domestic producers' price data and 14 percent of the importers' price data.

[114] The two sets of delivered price comparisons from producer and importer questionnaire responses are, to some extent, redundant since for 27 price comparisons they cover the same products for the same periods and the import prices used are the same.

[115] Three of the 14 price comparisons showed the imported product to be priced higher than the domestic product, and 1 price comparison showed the domestic and imported product to be equal in price.

[116] Margins of underselling involving product 1 sold to distributors and product 3 sold to end users fluctuated but tended to increase during the periods reported.

Table 34
Margins of under/(over)selling[1] between U.S.-produced refined antimony trioxide and the imported Chinese products based on reported net DELIVERED **PURCHASE** prices reported by end users, by specified products and by quarters, January 1989-September 1991

Period	Product 1 (high-tint grade)		Product 3 (generic)	
	Per pound	Percent	Per pound	Percent
*	*	*	*	*	*	*

[1] The percentage price differences between the U.S. and imported Chinese refined antimony trioxide were calculated as differences from prices of the U.S.-produced products. Figures in parentheses indicate that the imported product was priced higher than the U.S. product.

Note: Percentage margins are calculated from the unrounded prices.

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

domestic and imported products 1 and 3 purchased by end users.[117] No comparisons involving purchases by distributors were possible, as these firms reported buying only the imported products.

Based on the reported delivered prices from purchaser questionnaire responses, a total of 18 quarterly price comparisons were possible between U.S.-produced and Chinese refined antimony trioxide products purchased by end users. All 11 price comparisons involving product 1 showed underselling by the imported product, with margins of underselling averaging 16.5 percent. Based on limited data, 6 of the 7 price comparisons involving product 3 showed the imported product to be priced higher than the domestic product by an average margin of 3.7 percent. It should be noted, however, that the margins of overselling involving product 3 fell during this period, from 3.9 percent in January-March 1989 to 1.9 percent in January-March 1991, and in July-September 1991 the imported product was priced 7.4 percent below the domestic product.

F.o.b. price comparisons based on *** and importers' reported price data.--Quarterly price comparisons between the domestic and imported Chinese

[117] Product 1 purchased by end users accounted for 90 percent of the total quantity of the U.S.-produced products and for 31 percent of the total quantity of the Chinese products for which end users reported price data. Product 3 purchased by end users accounted for 3 percent of the total quantity of the U.S.-produced products and for 7 percent of the total quantity of the Chinese products for which end users reported price data.

refined antimony trioxide based on net U.S. f.o.b. selling prices reported in the producer and importer questionnaires are shown in table 35 for the domestic prices reported by ***. The price comparisons shown in table 35 involved product 1 sold to distributors and product 3 sold to end users.[118]

Based on the reported net U.S. f.o.b. selling prices, a total of 6 quarterly price comparisons were possible. All 4 price comparisons involving product 1 sold to distributors and both price comparisons involving product 3 sold to end users show underselling by the imported product, with margins of underselling averaging *** percent and *** percent, respectively.

Toll-produced refined antimony trioxide

In the purchaser questionnaire, two end users, ***, and one distributor, ***, reported quarterly cost data for their U.S. toll-produced refined antimony trioxide during at least part of the period requested, January 1989-September 1991.[119] ***. Prior to obtaining toll-produced refined antimony trioxide, both ***.[120] ***; prior to this *** had purchased ***.[121] The two end users reported ***.

These end users' arrangements with their tolling suppliers require them to ***. The distributor, ***.[122] As part of its tolling agreement with ***.[123] ***.

All 3 responding firms reported ***;[124] the 3 firms use ***. ***.[125] ***. Quarterly cost and quantity data for U.S. toll-produced refined antimony trioxide reported by the three purchasing firms are shown for the two end users combined and for the lone responding distributor in table 36. ***.

Quarterly unit tolling charges paid by the end users remained relatively stable at *** per pound of refined antimony trioxide during January 1989-September 1991. In contrast, quarterly total unit delivered costs fell from

---

[118] Product 1 sold to distributors on a U.S. f.o.b. price basis accounted for 0.6 percent of the total quantity of U.S. producers' price data and 10 percent of the total quantity of the importers' price data. Product 3 sold to end users on a U.S. f.o.b. price basis accounted for less than 0.1 percent of U.S. producers' price data and 1 percent of the importers' price data.

[119] ***. (Commission staff telephone conversation with *** on Feb. 26, 1992.)

[120] ***.

[121] ***.

[122] Above these specified levels, ***.

[123] ***. (Commission staff telephone conversation with *** on Feb. 26, 1992). ***.

[124] ***. (Commission staff conversation with *** on Feb. 25, 1992.)

[125] ***.

Table 35
Margins of underselling[1] between *** U.S.-produced refined antimony trioxide and imported Chinese products based on reported net U.S. F.O.B. SELLING prices, by specified products, by types of customers, and by quarters, April 1988-September 1991

Period	Product 1 (high-tint grade) Sales to distributors		Product 3 (generic) Sales to end users	
	Per pound	Percent	Per pound	Percent
*	*	*	*	*	*	*

[1] The percentage price differences between the U.S. and imported Chinese refined antimony trioxide were calculated as differences from *** U.S. producer prices.

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

Table 36
Net U.S. delivered costs of U.S. toll-produced refined antimony trioxide, by specified grades, by types of purchasers, and by quarters, January 1989-September 1991

Types of purchasers and period	Product 1 (high-tint grade) Unit tolling charge	Total unit delivered costs	Quantity	Product 2 (low-tint grade) Unit tolling charge	Total unit delivered costs	Quantity
	Per pound of refined antimony trioxide		1,000 pounds	Per pound of refined antimony trioxide		1,000 pounds
End users:[1]						
	*	*	*	*	*	*	*
Distributor:[2]						
	*	*	*	*	*	*	*

[1] Unit tolling charges and total unit delivered costs of the U.S. tolled refined antimony trioxide obtained by end users are averages of the net delivered quarterly costs of two U.S. firms, ***, for product 1 (high-tint grade). The unit tolling charges and unit total costs of the refined antimony trioxide are based on each firm's receipt of its largest quarterly shipment of the high-tint grade weighted by the total quarterly quantity of the toll-produced high-tint grade received. Quantities shown are the total quarterly shipments of the high-tint grade toll-produced refined antimony trioxide received.

[2] Unit tolling charges and total unit delivered costs of the U.S. tolled refined antimony trioxide obtained by the distributor are the net delivered quarterly costs of *** for product 1 (high-tint grade) and product 2 (low-tint grade). The unit tolling charges and unit total costs of each grade of the refined antimony trioxide are based on the firm's receipt of its largest quarterly shipment of each grade. Quantities shown are the total quarterly shipments of each specified grade of the toll-produced refined antimony trioxide that it received.

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

*** per pound of refined antimony trioxide in January-March 1989 to *** per pound in July-September 1991, or by about *** percent.[126]

***.[127] Quarterly cost/price comparisons show that the total unit delivered costs of the U.S. toll-produced product 1 were consistently lower, averaging *** less, than delivered prices of the U.S. non-toll-produced product 1 purchased and reported by end users.[128] Quarterly cost/price comparisons involving the imported Chinese product 1 show that the total unit delivered costs of the U.S. toll-produced product 1 were consistently higher, averaging *** more, than delivered prices of the imported Chinese product 1 purchased and reported by end users.[129]

Quarterly unit tolling charges paid by the distributor remained constant at *** per pound of refined antimony trioxide during January 1990-September 1991. Quarterly total unit delivered costs remained unchanged for product 1 at *** per pound of refined antimony trioxide during January 1990-September 1991, while the quarterly total unit costs for product 2 fell by *** percent during April 1990-September 1991.[130] ***.[131] Quarterly cost/price comparisons involving the imported Chinese product 1 purchased by distributors show that the total unit delivered costs of the U.S. toll-produced product 1 purchased by *** were, with one exception, ***, averaging *** than delivered prices of the imported Chinese product 1 purchased and reported by distributors.[132] The only exception was in April-June 1991, when the total unit cost of the U.S. toll-produced product 1 purchased by *** was *** percent *** than delivered purchase prices of the imported Chinese product 1 reported by distributors.

---

[126] Total unit costs fell sharply between the fourth quarter of 1989 and the first quarter of 1990, when costs fell from *** per pound to *** per pound, and then continued to fall but on a more gradual downward trend thereafter. This sharp drop in total unit costs occurred as such costs of *** fell from *** per pound in October-December 1989 to *** per pound in January-March 1990. Cost data reported by ***.

[127] ***.

[128] Based on 11 possible quarterly comparisons between the total unit delivered costs of U.S. toll-produced refined antimony trioxide reported by the two end users (table 36) and delivered purchase prices of U.S. non-toll-produced refined antimony trioxide reported by end users (table 28) during January 1989-September 1991.

[129] Based on 11 possible quarterly comparisons between the total unit delivered costs of U.S. toll-produced refined antimony trioxide reported by the two end users (table 36) and delivered purchase prices of the imported Chinese refined antimony trioxide reported by end users (table 31) during January 1989-September 1991.

[130] ***. (Commission staff telephone conversation with *** on Feb. 26, 1992.)

[131] Commission staff telephone conversation with *** on Feb. 26, 1992.

[132] Based on 7 possible quarterly comparisons between the total unit delivered costs of U.S. toll-produced refined antimony trioxide reported by *** (table 36) and delivered purchase prices of the imported Chinese refined antimony trioxide reported by distributors (table 31) during January 1990-September 1991.

Exchange Rates

Useable market exchange-rate data for the Chinese yuan/renminbi are not available. The Government of China limits convertibility of its currency with other currencies.

Lost Sales

During the final investigation, 2 U.S. producers, ***,[133] reported lost sales allegations involving competition from refined antimony trioxide imported from China. These lost sales allegations totaled *** of refined antimony trioxide. In addition, both firms also repeated lost sales allegations that they reported during the preliminary investigation, which totaled ***. Lost sales allegations investigated during the final investigation involved the largest volume transactions, which were already alleged in the preliminary investigation, and are discussed below.[134]

***. *** alleged that it offered to sell various quantities of its low-tint refined antimony trioxide totaling *** pounds to *** during *** at *** per pound, but lost the sale to Chinese material priced at *** per pound. According to ***. *** commented that purity and particle size distribution of the refined antimony trioxide were critical to his firm's use of this product. ***.[135] ***.

***. According to the company president, ***,[136] ***. *** alleged that it offered to sell *** pounds of high-tint refined antimony trioxide to *** in *** at *** per pound, but lost the sale to Chinese material priced at *** per pound. According to ***, he bought a total of *** pounds of refined antimony trioxide in ***. Most of this product was Chinese high-tint grade at a price of *** per pound, but *** were from ***--one in January at a price of *** per pound and one in October at a price of *** per pound. Prior to ***, *** had purchased its refined antimony trioxide solely from ***, ***.[137] The firm settled on the Chinese material because of its low price. *** felt the quality of this imported material was less than that of ***, citing better particle size distribution and purity of the domestic product, but indicated that his firm did not need this higher quality.

***. According to *** of the firm, its products do not require high quality refined antimony trioxide so he buys primarily according to price. *** alleged that it offered to sell *** pounds of its generic refined antimony trioxide to *** in *** for *** per pound, but lost the sale to Chinese

---

[133] *** indicated in its questionnaire response that its production has been reduced because the distributor has been undercut by the Chinese products. *** provided no further details.

[134] Lost sales allegations investigated during the preliminary investigation are shown in appendix J.

[135] *** also provided these data in response to the Commission's purchaser questionnaire.

[136] ***.

[137] ***.

material priced at *** per pound. *** indicated that the reported figures were correct, but he felt that *** quoted price was unrealistic because at that time U.S. market prices of the generic product were lower than the quoted price. ***. *** also commented that the U.S.-produced refined antimony trioxide is better in quality than that of the Chinese material, but for his firm the quality difference is not important for the *** applications.

***. *** alleged that it offered to sell its generic refined antimony trioxide totaling *** pounds to *** and quoted a price of *** per pound on ***, but lost the sale to Chinese material priced at *** per pound. *** did not recall the transaction, but *** purchaser questionnaire response shows similar domestic and imported prices as those alleged. As discussed in the quality considerations section, ***.[138] *** indicated that his firm has not switched from domestic to the imported antimony as they are used in different products;[139] he noted that the decision about what source of refined antimony trioxide to use in the *** was made the firm's engineering department. *** reported that his firm most recently purchased refined antimony trioxide in February 1992, purchasing the domestic material at *** per pound and the Chinese material at *** per pound.

Lost Revenues

During the final investigation, 2 U.S. producers, ***, reported lost revenue allegations involving competition from refined antimony trioxide imported from China. These lost revenue allegations totaled about *** of refined antimony trioxide and *** pounds for which no value data were reported. Both firms also repeated lost revenue allegations that they already alleged during the preliminary investigation, which totaled ***. Lost revenue allegations investigated during the final investigation involved the largest volume transactions and are discussed below.[140]

*** alleged that it sold *** of low-tint refined antimony trioxide at *** per pound in ***, after dropping its price from *** per pound to compete with Chinese material at *** per pound. As discussed in the lost sales section of this report, ***. *** indicated that he was not aware of any low-tint Chinese material in the U.S. market.

*** alleged that it sold *** pounds of high-tint refined antimony trioxide at an unspecified price in *** after lowering its price from *** per pound to compete with the Chinese material at *** per pound. According to ***. The remainder of its purchases in ***, *** pounds, were Chinese refined antimony trioxide bought at a price of *** per pound. As indicated in the Lost Sales section, ***. *** did not require *** higher quality product.

---

[138] ***.

[139] According to *** questionnaire response, the firm sources its domestic refined antimony trioxide from ***, and its Chinese material from ***.

[140] Lost revenue allegations investigated during the preliminary investigation are discussed in appendix J.

***. *** alleged that it sold *** pounds of high-tint refined antimony trioxide at *** in *** after lowering its price from *** per pound to compete with the Chinese material at *** per pound. *** indicated that the reported figures were correct. She noted that her firm has purchased all of its refined antimony trioxide from *** during 1988-91, and considers the quality, delivery, and service of the domestic supplier superior to that of the Chinese product.

APPENDIX A

THE COMMISSION'S FEDERAL REGISTER NOTICES

[Investigation No. 731-TA-517 (Final)]

Refined Antimony Trioxide From the People's Republic of China

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of a final antidumping investigation.

SUMMARY: The Commission hereby gives notice of the institution of final

[1] The merchandise covered by this investigation was primary magnesium whether prize pure or alloyed. Pure magnesium is provided for in subheading 8104.1100.00 of the Harmonized Tariff Schedule of the United States (HTS), and is defined as unwrought magnesium containing at least 99.8 percent magnesium by weight. Magnesium alloys are provided for in subheading 8104.1900.00 of the HTS, and are defined as unwrought magnesium containing less than 99.8 percent magnesium by weight, with magnesium being the largest metallic element in the alloy in weight.

antidumping investigation No. 731-TA-517 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the act) to determine whether 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 the People's Republic of China of refined antimony trioxide,[1] provided for in subheading 2825.80.00 of the Harmonized Tariff Schedule of the United States.

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

EFFECTIVE DATE: October 7, 1991.

FOR FURTHER INFORMATION CONTACT: Brad Hudgens (202-205-3189), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000.

SUPPLEMENTARY INFORMATION:

Background. This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of refined antimony trioxide from the People's Republic of China are being sold in the United States at less than fair value within the meaning of section 733 of the act (19 U.S.C. 1673b). The investigation was requested in a petition filed on April 25, 1991, by the Coalition for Fair Trade in Refined Antimony Trioxide.

Participation in the investigation and public service list.—Persons wishing to participate in the investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules, not later than twenty-one (21) days after publication of this notice in the Federal Register. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.—Pursuant to § 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in this final investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made not later than twenty-one (21) days after the publication of this notice in the Federal Register. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff report.—The prehearing staff report in this investigation will be placed in the nonpublic record on December 9, 1991, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules.

Hearing.—The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on December 19, 1991, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before December 13, 1991. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on December 17, 1991, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by §§ 201.6(b)(2), 201.13(f), and 207.23(b) of the Commission's rules.

Written submissions.—Each party is encouraged to submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of § 207.22 of the Commission's rules; the deadline for filing is December 16, 1991. Parties may also file written testimony in connection with their presentation at the hearing, as provided in § 207.23(b) of the Commission's rules, and posthearing briefs, which must conform with the provisions of § 207.24 of the Commission's rules. The deadline for filing posthearing briefs is December 31, 1991; witness testimony must be filed no later than three (3) days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before December 31, 1991. All written submissions must conform with the provisions of § 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of §§ 201.6, 207.3, and 207.7 of the Commission's rules.

In accordance with §§ 201.16(c) and 207.3 of the rules, each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to section 207.20 of the Commission's rules.

Issued: October 16, 1991.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 91-25511 Filed 10-22-91; 8:45 am],

BILLING CODE 7020-02-M

[1] For purposes of this investigation, refined antimony trioxide (also known as antimony oxide) is a crystalline powder with the chemical formula Sb_2O_3. The subject refined antimony trioxide includes blends with organic or inorganic additives comprising 20 percent or less of the blend by volume or weight. Crude antimony trioxide (antimony trioxide having less than 98 percent Sb_2O_3) is excluded.

[Investigation No. 731-TA-517 (Final)]

Refined Antimony Trioxide From the People's Republic of China

AGENCY: United States International Trade Commission.

ACTION: Revised schedule for the subject investigation.

EFFECTIVE DATE: November 6, 1991.

FOR FURTHER INFORMATION CONTACT: Brad Hudgens (202-205-3189), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000.

SUPPLEMENTARY INFORMATION: On October 23, 1991, the Commission instituted the subject investigation and established a schedule for its conduct (56 FR 54887). Subsequently, the Department of Commerce extended the date for its final determination in the investigation from December 16, 1991, to February 21, 1992 (56 FR 56631). The Commission, therefore, is revising its schedule in the investigation to conform with Commerce's new schedule.

The Commission's new schedule for the investigation is as follows: requests to appear at the hearing must be filed with the Secretary to the Commission not later than February 19, 1992; the prehearing conference will be held at the U.S. International Trade Commission Building on February 20, 1992; the prehearing staff report will be placed in the nonpublic record on February 10, 1992; the deadline for filing prehearing briefs is February 21, 1991; the hearing will be held at the U.S. International Trade Commission Building on February 25, 1991; and the deadline for filing posthearing briefs is March 4, 1992.

For further information concerning this investigation see the Commission's notice of investigation cited above and the Commission's Rules of Practice and Procedure, part 201, subparts A through

E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.20 of the Commission's rules.

Issued: November 26, 1991.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 91-29081 Filed 12-3-91; 8:45 am]

BILLING CODE 7020-02-M

APPENDIX B

LIST OF PARTICIPANTS IN THE HEARING

CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject	**:**	**REFINED ANTIMONY TRIOXIDE FROM THE PEOPLE'S REPUBLIC OF CHINA**
Inv. No.	**:**	**731-TA-517 (Final)**
Date and Time	**:**	**February 25, 1992 - 9:30 a.m.**

Sessions were held in connection with the investigation in the Main Hearing Room 101 of the United States International Trade Commission, 500 E St., S.W., Washington, D.C.

In Support of Imposition of Antidumping Duties:

Winthrop, Stimson, Putnam & Roberts
Washington, D.C.
On behalf of

Coalition for Fair Trade in Refined Antimony Trioxide

Bruce Malashevich, President
Economic Consulting Services, Inc.

Vincent M. Honnold, Director of Statistical Services
Economic Consulting Services, Inc.

John W. Little, Vice President
Anzon, Inc.

Carlos Tejada, Vice President
Laurel Industries, Inc.

Paul Bousquet
Kenneth Berlin) **-OF COUNSEL**

In Opposition to Imposition of Antidumping Duties:

Miller, Canfield, Paddock and Stone
Washington, D.C.
On behalf of

China National Nonferrous Metals Import and Export Corporation

Ms. Chen Xia, Export Dept.

China National Metals and Minerals Import and Export Corporation

Mr. Hu Xiangdong, Deputy Manager
Minmetals Import & Export Corporation
International Non-Ferrous Metals Trading Co. Antimony Dept.

Mr. Wang Lixin
MOFERT
Import & Export Department
Ministry of Foreign Economic Relations & Trade

Mr. Du Qi, Chief Engineer, Chief Engineer
Xikuangshan Mining Administration
Hunan, China

William G. Huml
ICC Chemical Corporation

William E. Perry)
Terry X. Gao) --OF COUNSEL

- END -

APPENDIX C

COMMERCE'S FEDERAL REGISTER NOTICE OF FINAL DETERMINATION

DEPARTMENT OF COMERCE

International Trade Administration

[A-570-813]

Final Determination of Sales at Less Than Fair Value: Refined Antimony Trioxide From the People's Republic of China

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: February 28, 1992.

FOR FURTHER INFORMATION CONTACT: Susan M. Strumbel or Carole Showers, Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone: (202) 377-1442 and 377-3217, respectively.

Final Determination

The Department determines that refined antimony trioxide from the People's Republic of China ("PRC") is being, or is likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended ("the Act") (19 U.S.C. 1673d). The estimated margin is shown in the "Suspension of Liquidation" section of this notice.

Case History

Since the publication of our preliminary determination on October 9, 1991 (56 FR 50849), and its reprint on November 5, 1991 (56 FR 56496), the following events have occurred.

On October 25, 1991, respondents withdrew their request, submitted on September 13, 1991, that the Department use domestic Chinese input prices to value the factors of production.

On November 6, 1991, we published a notice postponing the final determination until no later than February 21, 1992 (56 FR 56631). We verified the responses of China National Nonferrous Metals Import and Export Corporation ("CNIEC"), China National Metals and Minerals Import and Export Corporation ("China Minmetals"), Xikuangshan Antimony Trioxide Refinery ("Xikuangshan") and Stibium Products Refinery ("Stibium") in Hunan Province and in Beijing, PRC, from November 18 through November 30, 1991. We also verified certain U.S. subsidiaries of respondents in Houston, Texas and Duarte, California from Janaury 13 through January 16, 1992. A public hearing was held on February 14, 1992.

Separate Rates

In our preliminary determination, we stated that we were seeking additional information from respondents on the issue of whether they should receive company-specific rates. Based on that information, we determine that company-specific rates are appropriate for CNIEC and China Minmetals. (For further discussion, see DOC Postion to Comment 6 below).

Scope of the Investigation

The product covered by this investigation is refined antimony trioxide (also known as antimony oxide) from the PRC. Antimony trioxide is a crystalline powder of the chemical formula Sb203, currently classified under subheading 2825.80.00 of the Harmonized Tariff Schedule ("HTS"). Refined antimony trioxide includes blends with organic or inorganic additives comprising up to and including 20 percent of the blend by volume or weight. Crude antimony trioxide (antimony trioxide having less than 98 percent Sb203) is excluded. Although the HTS subheading is provided for convenience and customs purposes, our written description of the scope of this proceeding is dispositive.

Period of Investigation

The period of investigation ("POI") is November 1, 1990 through April 30, 1991.

Fair Value Comparisons

To determine whether sales of refined antimony trioxide from the PRC to the United States were made at less than fair value, we compared the United States price to the foreign market value ("FMV"), as specified in the "United States Price" and "Foreign Market Value" sections of this notice.

United States Price

For both respondents, we based United States price on purchase price where sales were made directly to unrelated parties prior to the date of importation into the United States, in accordance with section 772(b) of the Act. We used purchase price as defined in section 772 of the Act, both because refined antimony trioxide was sold to unrelated purchasers in the United States prior to importation into the United States, and because exporter's sales price ("ESP") methodology was not indicated by other circumstances. Where sales to the first unrelated purchasers took place after importation into the United States, we based United States price on ESP, in accordance with section 772(c) of the Act.

As in our preliminary determination, we have made no adjustments to United States price or FMV for selling expenses. (For further discussion, see DOC Postion to Comment 21).

A. China Minmetals

For China Minmeteals, we calculated both purchase price and ESP based on packed, FOB, CIF or Ex-Dock prices to unrelated customers in the United States. We made deductions, where appropriate, for foreign inland freight, ocean freight, marine insurance, U.S. brokerage and handling, U.S. duty and U.S. terminal charges.

At the time of our preliminary determination, we stated that we did not make an adjustment for foreign inland insurance, as reported by respondent, because we were unable to obtain a value for this factor from either surrogate country. Since that time, we have received no information from any party, and have no information from the surrogate countries, concerning this valuation. Therefore, we are still unable to make this adjustment.

B. CNIEC

For CNIEC, we calculated both purchase price and ESP based on packed, ex-warehouse, FOB, or delivered prices to unrelated customers in the United States. We made deductions, where appropriate, for foreign inland freight, ocean freight, marine insurance, U.S. duty, U.S. inland freight, U.S. drayage, U.S. handling, dock discharge and U.S. port charges. We did not make an adjustment for foreign inland insurance for the reason discussed above. For certain sales CNIEC did not report U.S. inland freight. For those sales, we used average inland freight as best information available ("BIA").

We have included in CNIEC's U.S. sales one transaction that was discovered at verification (see Comment 18 below). We have also included a second transaction which was not treated as a sale made by CNIEC in the preliminary determination.

Foreign Market Value

As in our preliminary determination, we are treating the PRC as a nonmarket economy country ("NME") for the purposes of the final determination. As a result, section 773(c) of the Act directs

the Department to base FMV on the NME producers' factors of production.

For one refinery, Stibium, we were not able to verify the conversion factor for the blast furnace of the production process. Therefore, we used information from the petition as BIA for the factors of production this stage of Stibium's production process. (For further discussion, see DOC Position to Comment 12.) Those factors were valued in the surrogate country.

Surrogate Country

Section 773(c) of the Act requires the Department to value the factors of production, to the extent possible, in one or more market economy countries that are at a level of economic development comparable to that of the nonmarket economy country, and that are significant producers of comparable merchandise. Based on these criteria, we have determined that Bolivia is the most appropriate surrogate country within which to value the PRC factors of production. (See, DOC Position to Comments 1 and 2 for a complete discussion of this issue.)

With the exception of the blast furnace stage of Stibium's production process, we calculated FMV based on the PRC producers' factors of production. Refined antimony trioxide factors of production include materials, labor, and energy. To value antimony concentrate, we used the London Metal Bulletin ("LMB") prices for Bolivian-origin antimony concentrate. (For further discussion, see DOC Position to Comment 4.) For other materials, labor, and energy, we used Bolivian values where they were available. Where Bolivian values were not available, *i.e.* for coke, soft coal, and inland freight, we used Thai values. Where appropriate, the factor values were inflated to POI levels using wholesale price indices published by the International Monetary Fund.

We added to materials, labor, and energy, amounts for selling, general and administrative expenses ("SG&A"), factory overhead, profit, and packing. The factory overhead, SG&A, and packing expenses were based on the experience of a Bolivian producer. For profit, we used the statutory minimum of eight percent of the sum of production costs and general expenses. (For further discussion, see DOC Position to Comment 3.)

For the factors of production reported for the Xikuangshan factory, adjustments were made as follows: (1) For the reduction and oxidation furnaces, we revised the reported yield for all non-antimony materials, labor, and energy to include the factors that had been assigned to scrap, (2) for the blast furnace, we included a limestone factor, (3) we recalculated labor to include down days and days off due to illness, travel, etc., (4) we did not make an adjustment to the cost of manufacture for the two by-products created from producing refined antimony trioxide because we were unable to verify the quantities, and (5) we corrected minor clerical errors.

For the factors of production reported for the Stibium factory, adjustments were made as follows: (1) We relied on BIA for all factors related to the blast furnace (as discussed above and in DOC Position to Comment 12), (2) for the reduction furnace, we recalculated the factors reported for soft coal, soda ash, and electricity, (3) for the oxidation furnace, we recalculated the factors reported for soft coal and electricity, (4) for the reduction and oxidation furnaces, we revised the reported yield for all non-antimony materials, labor, and energy to include the factors which had been assigned to scrap, (5) we accepted respondent's revised labor calculation methodology, and (6) we eliminated our adjustment for byproducts because the adjustment was already included in the respondent's calculations.

We made currency conversions in accordance with 19 CFR 353.60(a).

Verification

Pursuant to section 776(b) of the Act, we verified information used in reaching our final determination. We used standard verification procedures, including examination of relevant accounting records and original source documents provided by respondents.

Interested Party Comments

Comment 1: Petitioners assert that the Department should choose Bolivia as the surrogate, free market economy for valuing PRC production because, both in terms of economic development and in significant production of a comparable product, Bolivia is more similiar to the PRC than is Thailand. With respect to economic comparability, petitioners argue that per capita gross national product("GNP"), the distribution of gross domestic product, and the distribution of labor between agricultural and non-agricultural sectors all reflect that Bolivia is clearly at a level of economic development far more comparable to the PRC than is Thailand.

Further, petitioners assert that Bolivia produces crude antimony trioxide, a product which is more comparable to the subject merchandise than is antimony metal produced in Thailand. Unlike Thailand, Bolivia has produced refined antimony trioxide in the past Bolivia is currently a significant producer and exporter of crude antimony trioxide and, unlike Thailand, its production is for commercial sales as opposed to captive consumption. In Thailand, crude antimony trioxide is produced only as an intermediate product to be used in the production of antimony metal. Petitioners assert that antimony metal differs significantly from refined antimony trioxide in composition, physical properties and applications. Petitioners state that, most importantly, the products have entirely different applications. Antimony metal is used for a variety of industrial uses including starting-lighting-ignition, batteries, ammunition, corrosion resistant pumps and pipes, tank linings, roofing sheets, solder, cable sheaths, and antifriction bearings. Refined antimony trioxide, in contrast, is used as a flame-retardant synergist or catalyst in glass or ceramic production, and as a chemical intermediate. Thus, based on production of a comparable product, Bolivia is clearly a more suitable surrogate than Thailand for valuing the PRC factors of production.

Respondents dispute petitioners' assertion that Bolivia is a more appropriate surrogate county than Thailand in which to value the factors of production. Respondents state that the Department has often used Thailand to value factors of production in cases involving the PRC. Furthermore, respondents assert that, in terms of economic comparability, Bolivia has experienced a negative growth rate and hyperinflation, unlike the PRC. Respondents claim that if the hyperinflationary Bolivian experience is used for surrogate purposes, it will be impossible for Chinese producers to determine whether they are selling at a dumped price.

Respondents also assert that antimony metal is a more camparable product to the subject merchandise than is crude antimony trioxide. As seen at vertification, the Chinese production process has three stages—ore to crude, crude to metal, metal to refined. Therefore, because antimony metal is one step away from the production of refined antimony trioxide, it is more similar than crude antimony trioxide, which is produced two steps prior to producing refined antimony trioxide. In addition, respondents add that a substantial number of U.S. antimony trioxide producers import antimony metal from the PRC to produce refined antimony trioxide. Finally, respondents state that Thailand is a significant producer/exporter of antimony metal.

DOC Position: In our preliminary determination, we stated that in economic terms, Bolivia and Thailand were equally comparable to the PRC for purposes of selecting a surrogate country within which to value PRC factors of production. Nonetheless, the Department strives, where possible, to select one surrogate country for purposes of factor valuation. In making this determination and consistent with 19 CFR 353.52(b), the Department has traditionally considered GNP, per capita GNP, the distribution of labor within the economy, and the rate of economic growth. While all these factors are important, the disparity in the per capita GNP figures between Thailand and Bolivia has persuaded us that Bolivia is the more comparable economy for purposes of this investigation.

With respect to the significant production of a comparable product, based on an analysis of information gathered throughout this investigation, we have determined that antimony metal is more comparable to refined antimony trioxide than is crude antimony. Refined antimony trioxide is produced in three stages—ore to crude, crude to metal, and metal to refined. Because antimony metal is at an intermediate stage of processing in the spectrum from ore to refined, it is more comparable to the end product. The mere fact that antimony metal is also used to produce other products does not detract from its greater comparability to refined antimony, particularly since crude antimony is two production steps away from refined antimony and the metal production stage immediately precedes the production of refined antimony trioxide, the subject merchandise.

Therefore, because Bolivia is a significant producer of antimony metal, a comparable product, and we find it to be more comparable economically, we determine that Bolivia is the appropriate surrogate country within which to value PRC factors of production. In those few instances where values were unobtainable from Bolivia, we have used values from Thailand.

Comment 2: Respondents argue that, if the Department continues to believe that Bolivia and Thailand are equally comparable to the PRC, as a "tie-breaker" the Department should consider the similarity of the production processes in the various countries. Respondents contend that the prdouction process utilized in Thailand is more comparable to that used in the PRC, indicating that Thailand may be the better surrogate.

DOC Position: The Department has concluded that, based on the statutory criteria for surrogate selection, Bolivia is more comparable than Thailand for purposes of this investigation (see DOC Position to Comment 1 above.) Consequently, we need not consider whether the production process for refined antimony trioxide in Thailand or Bolivia is more similar to that of the PRC.

Comment 3: Respondents argue that since Laurel Industries, a petitioner, is related to and controls Empresa Metalurgica Vinto ("Vinto"), the Department should disregard the profit and SG&A obtained from this Bolivian company for purposes of calculation constructed value. Respondents content that information provided by Vinto does not fairly reflect the profit or SG&A of antimony producers in the United States, worldwide, or in the PRC. Consequently, respondents suggest that the Department use the statutory minimum of eight percent profit and ten percent SG&A as BIA in constructing FMV for the product under investigation.

Petitioners content that since a Bolivian firm producing crude antimony trioxide has supplied GS&A and profit data to the Department, the Department should continue using these actual data for its final determination. Petitioners state that respondents' claim that Vinto is related to Laurel Industries is incorrect. Vinto and Laurel signed a joint cooperation and technology transfer agreement but the two firms are not related. Neither has any ownership interest in the other, nor does any relationship exist through either company's employees. Vinto, in fact, is a government-owned entity. Vinto and Laurel trade under an arms-length toll contract and are in no way related.

Petitioners further content that respondents' claim that Vinto's profits are too high is erroneous. Laurel has other source of supply besides Vinto. If Vinto's prices were not competitive, Laurel would stop purchasing from this firm because Laurel is in no way bound to Vinto as a supplier.

DOC Position: We have determined that it is appropriate to use Vinto's actual SG&A figures for purposes of this final determination. No evidence has been provided to demonstrate that this amount is atypically high by industry-wide standards, or that it is tainted by virtue of Laurel's association with Vinto. Where we are using a surrogate producer's expenses, there is no evidence on the record which persuades the Department that a relationship with this petitioner can, or has, affected those expenses.

We are concerned, however, that Laurel's relationship to this Bolivian producer raises reasonable suspicions concerning Vinto's profitability. Laurel is Vinto's only customer, so Vinto's revenues are determined entirely by the price paid by Laurel. Moreover, in discussing why an LMB price differential exists, between Bolivian and Chinese concentrate, petitioners have pointed to their willingness to pay a premium for the Bolivian product so as to diversify their sources of supply. These factors lead us to conclude that use of Vinto's profit rate would mean that petitioners effectively control this aspect of the calculations, an outcome which we cannot accept. For these reasons, the Department has used as profit the statutory mimimum of eight percent of general expenses and cost, pursuant to section 773(e)(1)(B)(ii) of the Act, for the final determination.

Comment 4: Petitioners claim that the Department should base its valuation of antimony concentrate on the price for Bolivian-origin concentrate tracked by the LMB rather than on the export price of Chinese-origin antimony concentrate tracked by the LMB. In the PRC, refined antimony trioxide is a class-one product subject to special state controls and the entire antimony sector which produces it is an integral part of the PRC's command economy. Section 773 of the Act does not permit the Department to base its valuation of the antimony concentrate factor on the export price of the PRC product. In fact, the Act precludes the Department from valuing it in this manner. Section 773 allows the Department to use NME cost data only when the entire firm or sector, even though it operates within an NME, is subject to market forces. Otherwise, the statute requires the Department to use cost data from a comparable market economy country. In addition, petitioners assert that the Chinese export price of antimony concentrate is subsidized and, therefore, cannot be used. Further, petitioners claim that the Department's decision in the preliminary determination that the LMB price for Chinese antimony concentrate most accurately reflects the actual impurity levels of the concentrate used by respondents is in error. In fact, 60 percent antimony concentrate of Chinese and Bolivian origin are completely competitive and fungible. The LMB tracks the market price for the best 60 percent concentrate of Chinese origin, which is comparable in quality to the only other major source—60 percent concentrate of Bolivian origin. Petitioners purchase antimony concentrate from both sources and comparative assays show the difference to be insignificant.

Respondents assert that the LMB price for Chinese concentrate is not the Chinese market price but a world market price. Respondents argue that Chinese concentrate has a lower price than Bolivian concentrate because of differences in impurity levels, as the Department noted in its preliminary determination.

DOC Position: We agree, in part, with petitioners. For the final determination, the Department has determined that Bolivia is the appropriate surrogate country by which to value factors of production. (See, DOC Position to Comment 1.) There are three LMB prices listed for antimony concentrate, one for Chinese-origin concentrate and two for non-Chinese-origin concentrate. Based upon conversations with experts in the field, we have determined that the two prices for non-Chinese-origin concentrate are actually prices for Bolivian-origin concentrate. (See, February 19 and 21, 1992 memoranda to file re: conversations with Metal Bulletin experts.) The Department has determined that an average of the prices for Bolivian-origin concentrate is the most appropriate valuation of the antimony concentrate factor.

Evidence on the record suggests that the LMB prices for Bolivian-origin concentrate are internationally-traded prices for lump and clean sulfide concentrates. Both of these types of ore are used by the respondents in their production of the product under investigation. Therefore, an average of these two LMB prices, results in a valuation of the factor for antimony concentrate which most accurately reflects respondents' production experience.

Section 773(c)(4) of the Act, mandates the valuation of factors of production "to the extent possible" on the basis of prices or costs of such factors "in one or more market economy countries * * *." Since the Department has available to it prices of products produced in a market economy (the LMB prices for Bolivian-origin concentrate) by which to value this factor, it must use them over the LMB price for Chinese-origin concentrate.

Respondents argue that the LMB price for Chinese-origin concentrate is not an internal Chinese price but, instead, an internationally-quoted price for Chinese antimony concentrate. The Department, however, cannot ignore the fact that the PRC is an NME country which is the major exporter of antimony concentrate on the world market. Accordingly, distortion caused by the nonmarket nature of the Chinese economy will affect subequent transactions involving the product, as reflected in the LMB.

With regard to purported differences in impurity levels, current evidence on the record is conflicting, rather than conclusive. The same experts who informed the Department at the time of the preliminary determination that the price discrepancy between the Chinese- and Bolivian-origin concentrate was due to the difference in impurity levels now inform the Department that the discrepancy could also be accounted for by a premium which buyers are willing to pay for a second source of supply. Thus, the information on the record does not establish the reason for the difference in price.

Comment 5: Respondents request that for values other than the antimony concentrate, the Department use the information provided in a facsimile transmission from the U.S. Embassy in Thailand rather than the import prices used in the preliminary determination, since the Embassy information more accurately reflects the actual experience of local producers during the POI.

Petitioners state that the Department's practice demonstrates a preference for valuing all of the factors of production in a single surrogate country. Since Bolivia is the most appropriate surrogate, the Department should follow this practice in its final determination by valuing in Bolivia all of the factors of production, including those valued in Thailand for the preliminary determination. Petitioners' case brief contains values for fluorespar, soft coal, and coke, the only factors not already valued in Bolivia. The Department should use these factors in its final determination.

DOC Position: We agree with petitioners that it is the Department's preference to value factors of production in one surrogate country, if possible. Therefore, we have valued the PRC factors of production in Bolivia where public information from independent sources was available. We did not accept petitioners' values for fluorespar, soft coal, or coke, as we were able to obtain values for these inputs from independent sources in Thailand. The Thai values were (i) based on input values or (ii) taken from the information submitted by the U.S. Embassy.

Comment 6: Petitioners claim that CNIEC and Minmetals are government-controlled entities whose exports are strictly regulated. Therefore, the Department should assign a single, country-wide antidumping duty rate to their exports. CNIEC is a subsidiary of CNNC, which is a "nationally integrated enterprise" directly under the leadership of the State Council of the PRC. The corporate charter for the Ministry of Foreign Economic Relations and Trade ("MOFERT") spells out the extent of central government control over its export activities. MOFERT controls both the quantity and price of exports of refined antimony trioxide, a class-one product.

Respondents argue that each trading company should be given a separate antidumping duty margin because the companies vigorously compete with each other, MOFERT sets only export quotas, not prices, and the companies have proven both *de jure* and *de facto* absence of central control over export prices. *DOC Position:* We have determined that exporters in nonmarket economy countries are entitled to separate, company-specific rates when they can demonstrate an absence of central government control, both in law and in fact, with respect to exports. (See Final Determination of Sales at Less Than Fair Value: Sparklers from the People's Republic of China, 56 FR 20588, May 6, 1991.) Evidence supporting, though not requiring, a finding of *de jure* absence of central control includes: (1) Absence of restrictive stipulations associated with an individual exporter's business and export licenses; (2) any legislative enactments decentralizing control of companies; or (3) any other formal measures by the government decentralizing control of companies. A finding of *de facto* absence of central government control with respect to exports is based on two prerequisites: (1) Whether each exporter sets its own export prices independently of the government and other exporters; and (2) whether each exporter can keep the proceeds from its sales.

The evidence on the record demonstrates that each exporter of refined antimony trioxide sets its own prices for export. At vertification, MOFERT officials stated that it did not set prices of refined antimony trioxide and we saw no evidence at the trading companies to contradict this. Officials from each of the two companies explained that export prices were established independently on the basis of monthly LMB price quotes. In addition, we observed different prices being charged by the two companies at or about the same time period.

At vertification, we also noted that CNIEC's sales proceeds were deposited to its own account and that CNIEC bank records revealed no payments to the PRC government, CNIEC Beijing, or CNNC. Nor was there evidence of any control exercised by these entities over CNIEC's accounts. At Minmetals Hunan, we also traced proceeds from sales of refined antimony trioxide to that company's bank accounts and general ledger. We found no evidence of

payments to the PRC government, China Minmetals Beijing, or MOFERT, or of control exercised by any of these agencies over Minmetals' receipts.

Our examination of the business and export licenses of these companies revealed no restrictive stipulations on the export of various antimony products, including refined antimony trioxide. While at MOFERT, we received excerpts from the State Council Directive No. 12 of 1988, on the deregulation of the branches of foreign trade corporations. This directive made the branches financially independent from their former headquarters.

In view of the ample evidence on the record, as noted above, we have assigned separate, company-specific rates for purposes of our final determination.

Comment 7: Petitioners assert that respondents deliberately withheld and misreported key information with respect to their factors of production. For example, verification demostrated that respondents understated the antimony content of their raw material by at least two-to-one. In addition, petitioners assert that respondents withheld information on the antimony conten[illegible] slag. Petitioners state that this information, critical to determining the blast furnace conversion rate, was neither reported by respondents nor verified by the Department. Therefore, the Department should use BIA.

Respondents claim that the verified concentrate percentage was different than that provided in the questionnaire response because of a simple communication problem between counsel and respondents, and that the Department should use the information collected at verification.

DOC Position: The Department does not believe that respondents deliberately withheld or misreported key information with respect to the factors of production. Except as identified in other sections of this notice, we have accepted respondents' information as verified. Therefore, with the exception of the blast furnace stage of Stibium's production process, we have used respondents' data for the final determination.

Comment 8: Petitioners claim that the Department may have verified the antimony content of the antimony concentrate on a dry basis, when the assay was actually taken on a wet basis. The water content of the antimony quoted on a wet basis is about eight percent. Thus, the assay of concentrate on a wet basis will be significantly less than the assay on a dry basis. In support of its assertion, petitioners cite an article written about the production of antimony oxide in Xikuangshan which suggests that the assay verified by the Department was taken on a wet basis.

DOC Position: We disagree with petitioners. There is no evidence on the record to support this assumption for the companies under investigation.

Comment 9: Petitioners argue that the Department cannot accept Xikuangshan's blast furnace factors of production because the factors were based on theoretical, formula-based output of crude antimony rather than actual output. Additionally, the antimony content of blast furnace slag is not known, and the Department was unable to reconcile the production of crude antimony with the consumption of crude antimony in the reduction furnace. Petitioners further claim that this calculation rate is excessively high when compared to a state of the art facility like that owned by a petitioner using a far superior concentrate.

Petitioners additionally contend that in calculating the blast furnace conversion rate, Xikuangshan assumed a fixed loss-of-antimony-in-process rate and a fixed loss-to-slag rate. Petitioners contend that these loss rates are never fixed but vary considerably over time. Therefore, the Department should not accept these unverified loss rates for purposes of establishing a blast furnace conversion rate.

Xikuangshan suggests that the Department must base its judgments upon the production process and the records it observed at verification. Xikuangshan claims that, since it uses a continuous flow process, the Department must rely on the veracity of the formula provided by it to calculate the standard output of crude antimony rather than weighing the actual output of crude antimony, disagreeing the petitioners' claim that crude antimony is an output. Rather, Xikuangshan asserts that crude antimony trioxide is an intermediate process stage in the continuous production process and suggests that petitioners' objection to the verification of the stanadard output of crude antimony boils down to the fact that Xikuangshan uses a continuous production process and, therefore, does not weigh crude antimony oxide when it comes out of the blast furnace. Xikuangshan argues that the blast furnace factor was based on actual raw materials input into the production process, and actual output of the reduction furnace and oxidation furnace. Since the Department was able to verify the inputs and the outputs of the reduction and oxidation furnaces, the Department was able to verify the output of the blast furnace.

DOC Position: We disagree with petitioners. Respondents' production process does not allow the type of verification suggested by petitioners. Nevertheless, we are able to verify the factors of production of the Xikuangshan blast furnace. We verified that Xikuangshan weighs work-in-process crude inventory at the end of each month. At verification, the Department was able to reconcile monthly reported output crude antimony from the blast furnace with monthly recorded input crude antimony into the reduction furnace with recorded weighed work-in-process crude antimony inventory for each month. Thus, the Department was satisfied that Xikuangshan accounted for all the actual inputs and outputs of the blast and reduction furnaces during the POI.

Comment 10: Petitioners claim that Xikuangshan's calculation of its blast furnace conversion rate is significantly flawed because it takes into account antimony-containing scrap recycled from the blast furnace. Petitioners argue that the use of the reported conversion rate would significantly understate the consumption of antimony concentrates in the production of the subject merchandise.

Xikuangshan claims that the amount of scrap and its antimony content were verified. Further, it asserts that the antimony is not underquantified and the cost of recycling the scrap is captured in the cost.

DOC Position: We disagree with petitioners. Antimony scrap with a higher concentration than the lump/concentrate is recycled into the blast furnace. The Department verified that the antimony contained in the scrap was included in the calculation of the total antimony input into the furnace. Therefore, the antimony contained in the scrap is included in the factors of production.

However, the Department noted that Xikuangshan's methodology allocated fabrication expenses to antimony contained in the output of the furnaces that was eventually recycled as scrap. These fabrication expenses were not included in the submitted factors of production. Therefore, the Department adjusted the conversion rates to properly charge all fabrication costs to finished output only.

Comment 11: Petitioners claim that the Xikuangshan verification should have established that the quantity of crude produced in the blast furnace equalled the quantity of crude used by the reduction furnance, and that the

quantity of antimony metal produced in the reduction furnace equalled the quantity of antimony metal used by the oxidation furnace. Otherwise, Xikuangshan cannot demonstrate that the quantities of these intermediate products produced at prior stages were actually used in their entirety to produce refined antimony trioxide. If these quantities cannot be reconciled from one stage to the next, the Department should draw no inference regarding production factors from the actual ouput of refined antimony trioxide over the POI. In support of their argument, petitioners state that the Department's verification report does not establish that the quantity output from one stage equalled the quantity input to the next stage.

Xikuangshan argues that the Department's verfication reports do not indicate that it failed to account for work-in-process and that, in fact, the reports state that consumption included beginning inventory and inputs added, less inventory.

DOC Position: We disagree with petitioners. Xikuangshan's methodology calculates the factors of production in three stages, one for each furnace used in production. The calculation accounts for work-in-process between the processing stages. Because the Department verified that the quantities were reconciled from one stage to the next, we consider this calculation to be a reasonable method for determining usage, and an accurate reflection thereof, during the POI.

Comment 12: Petitioners claim that Stibium calculated a blast furnace conversion rate rather than establish a rate based on actual consumption of inputs over the POI. Further, the method of calculating the conversion rate is inherently faulty because it does not account for the fact that Stibium recycled large amounts of antimony-containing scrap back to the blast furnace from the reduction furnace. Thus, Stibium's conversion rate is not a rate for converting antimony concentrate to crude antimony trioxide but a rate for converting the combined input of concentrate and recycled scrap to crude antimony trioxide. The conversion rate of the combined input seriously understates the antimony concentrate factor of production. Petitioners cite the verifiction report which states that the quantity of crude antimony trioxide produced by the blast furnace could not be verified. Thus, it was not possible to determine whether the total amount of crude produced over the POI was used in the reduction furnace over the same period. This lapse in record-keeping undermines any attempt to verify Stibium's factors of production.

Stibium argues that its blast furnace factor was based on actual raw material input into the production process and actual output of the reduction and oxidation furnaces. Since the Department was able to verify the blast furnace input and the reduction and oxidation furnaces' outputs, the Departemnt was able to verify the otuput of the blast furnace.

DOC Position: We agree with petitioners. Stibium's blast furnace conversion factor was based on a calculation with unsupported ratios for loss in process and slag rate. Additionally, the Stibium Refinery did not provide any documentation to support that it weighed crude work-in-process inventory at the end of each month of the POI. Thus, the Deparatment was unable to reconcile the calculated crude antimony output from the blast furnace with crude antimony input into the reduction furnace. As a result, the Department used, as BIA, the factors of production information for the blast furnace as reported in the petition, valued using surrogate country prices.

Comment 13: Petitioners claim that the verification of Stibium's factors of production assumes that the quality of antimony metal produced in the reduction furnace exactly equals the quantity of antimony metal used in the oxidation furnace. Since this equality was never established from Stibium's production records, verification of these factors is seriously flawed.

DOC Position: We disagree with petitioners. Stibium's revised methodology calculates factors of production for the reduction furnace and the oxidation furnace by dividing total weighed input by total weighed output for each furnace. Any differences between output from the redution furnace and input into the oxidation furnace are included in work-in-process. Thus, it is not relevant whether the quantity of antimony metal produced in the reduction furnace exactly equals the quantity of antimony metal used in the oxidation furnace.

Comment 14: Petitioners claim that the straight-line proportionality method is not valid for deriving a value for less than 60 percent antimony concentrate based on the price of 60 percent antimony concentrate. The Department admitted that this method could result in as much as ten percent error. Petitioners have supplied a valuation chart based on one petitioner's experience indicating the value to a refined antimony trioxide producer of antimony concentrate of various percentages of antimony content.

DOC Position: Based on information from an independent source, we have reason to believe that the straight-line proportionality method may, in fact, overstate the price of less than 60 percent antimony concentrate. (See Memorandum from Susan Kuhbach to Francis J. Sailer, dated February 21, 1992, on file in the Central Records Unit.) However, lacking actual prices for the lower concentrate levels, we have no means of adjusting the straight-line proportionality formula. Therefore, we have used this formula as best available information.

Comment 15: Respondents state that the LMB price is a quote for one metric ton of concentrate containing 600 kilograms of antimony. Therefore, the Department must first multiply the LMB price by 60 percent to arrive at the price for the antimony content without any impurities. The resulting price should then be multiplied by the percentage of antimony contained in the respondents' antimony input in order to arrive at the surrogate value. Then, because the LMB price is CIF, respondents assert that the Department should subtract ocean freight charges. To this end, respondents have provided an invoice showing actual ocean freight expenses incurred.

Petitioners claim that respondents are mistaken in their method of evaluating antimony concentrate. They assert that the LMB price is actually for one metric ton of contained antimony. Thus, because respondents reported the quantity of their concentrate on an antimony-contained basis, the Department need only multiply the LMB price by this quantity to arrive at the surrogate value.

In addition, petitioners claim that the Department should not accept the ocean freight invoice provided by respondents because the information was submitted only 24 hours prior to the due date for rebuttal briefs. Furthermore, the invoice was not verified, does not indicate the quantity shipped, and the carrier appears to be from a nonmarket economy.

DOC Position: We agree with petitioners regarding the LMB quotation. The LMB quote is based on a per metric ton unit of antimony contained. (*See*, "February 19, 1992 Memo to File, RE: Conversation with LMB Specialist" on file in the Central Records unit.) Respondents also reported their antimony input factor on an antimony-contained basis. Therefore, our claculations are made on an anitmony-contained basis.

In addition, we have made further adjustment to the LMB price to account for ocean freight and marine insurance. The LMB quotation is on a CIF basis. Petitioners, in exhibit 16 of their petition, provided information with which we were able to make this adjustment.

Comment 16: Petitioners state that since respondents failed to report all U.S. sales and to report accurately all movement epenses, the Department must use BIA for U.S. price as set forth in the petition.

DOC Position: We disagree with petitioners. The discrepancies found at verification for the U.S. sales listing were minor. Therefore, the Department believes it would be inappropriate to use BIA for U.S. price.

Comment 17: Petitioners state that, in reviewing the completeness of China Minmetals' U.S. sales list, the verification team discovered invoices for shipments from Minmetals Hunan to a related U.S. company not previously mentioned in respondent's questionnaire response. Furthermore, petitioners noted that after the Department returned from verification in the PRC, China Minmetals provided inadequate documentation supporting that these two entities were related.

China Minmetals states that while the Department was at China Minmetals Hunan for verification, it suggested to the Department that a U.S. sales verification at the U.S. company could take place in the United States. China Minmetals further states that after the home market verification, the Department decided not to visit this company. Therefore, China Minmetals provided a copy of the original stock certificate of this company to prove the relationship with China Minmetals.

Furthermore, China Minmetals states that the sales made by this company were outside the period of investigation.

DOC Position: Based on documentation provided at verification, we are satisfied that the two companies are related. Moreover, because the sales to the first unrelated customer occurred outside the POI, there was no need to report it.

Comment 18: Petitioners state that CNIEC's failure to report a large U.S. sale should result in the use of BIA for U.S. price. Even if the Department were to accept this sale, it did not verify the amount paid for the merchandise, nor other charges such as discharge, drayage, brokerage, handling, duty and U.S. inland freight and insurance.

CNIEC argues that with the exception of one contract, the Department verified that CNIEC reported all sales. Respondents further argue that a March 7, 1991, contract discovered at CNIEC's Hunan Branch was not a sale during the POI because CNIEC breached the contract when it did not make the ageed upon shipment of the refined antimony trioxide. CNIEC further claims that even if the Department determines that this sale should have been included, the Department verified all of the information about the sale at verification and it should use this information for the final determination.

DOC Position: According to the documents supplied at verification, CNIEC and its customer never formally canceled the contract and the merchandise was eventually shipped, on the terms agreed upon in the contract. Therefore, the Department is including this sale for purposes of its final determination. Furthermore, the sale terms of this contract were CIF. The Department has verified all the information required to make all of its adjustment to U.S. price. We disagree with petitioners that omission of this sale requires the application of BIA.

There were rather unusual circumstances surrounding the transaction and we believe the omission was inadvertent.

Comment 19: Petitioners state that since CNIEC failed to report certain movement expenses, significantly understated certain expenses, or was unable to document other movement expenses, the Department should use the net U.S. price reported in the petition as BIA for its final determination. However, the petitioners assert that if the Department decides to reconstruct and supplement CNIEC's sales data bases, then the Department must use as BIA the highest movement expenses verified by the Department or reported by CNIEC for each movement category.

CNIEC maintains that the Department should accept the movement charges for Metaland, CNIEC's subsidiary, because the average allocation methodology used to report them has been accepted by the Department in prior cases.

DOC Position: The Department prefers shipment-specific movement expenses and for those sales where shipment-specific information was available, we used it. Where shipment-specific data were not available, we accepted CNIEC's average values as there is no evidence that they systematically over-or understate actural movement charges. However, we have adjusted these average figures, where appropriate, to include inland freight.

Comment 20: Petitioners claim that the Department's investigation accounted for only 25 percent of exports of the subject merchandise from the PRC during the POI. Petitioners state that the Department should not have excluded the other sales based on respondents' claims that certain exporters did not know, at the time of sale, that shipment were destined for the United States. Petitioners also state that the Department did not adequately verify respondents' claim that 75 percent of shipments during the period were made pursuant to contracts signed prior to the POI. Consequently, the Department should use BIA in establishing United States price.

Respondents claim that the Department verified the universe of sales of Newmet Inc. ("Newmet"), a related party of China Minmetals, through Newmet and MOFERT. Furthermore, respondents assert that the Department verified, through MOFERT and the respective companies' sales ledgers, that CNIEC and China Minmetals account for over 60 percent of the sales during the POI.

DOC Position: We agree with respondents. At verification, we verified that respondents reported all sales of refined antimony trioxide made to the United States during the POI except for the one missing sale discussed in Comment 17 above. Moreover, as discussed in a September 11, 1991 memo to the file (on file in the Central Records Unit), there were allegations that other exporters of refined antimony trioxide existed. Based on information on the record at that time, we determined that the PRC exporters being investigated accounted for most if not all of the imports during the POI. Therefore, we decided not to include the other possible exporters in our investigation. During verification, we found no evidence that the two exporters investigated did not account for all sales to the United States during the POI. Thus, we are confident that our investigation was comprehensive.

Comment 21: Petitioners assert that the Department should adjust for warehousing, credit, packing, and commission expenses incurred on U.S. sales, regardless of whether similar expenses could be identified or quantified in the surrogate country. The U.S. Court of International Trade in *Funai Electric Company, Ltd., v. United States*, 713 F. Supp. 420 (CIT) (1989), ruled that the Department could adjust constructed value for circumstances of sale in the United States in the absence of specific evidence that these expenses were incorporated within the statutory minimum of ten percent for SG&A.

Respondents disagree with petitioners' request that the Department reduce the U.S. price for indirect selling expenses but not make a corresponding

adjustment to the foreign market value to account for indirect selling expenses.

DOC Position: As in our preliminary determination, we have made no adjustments to United States price or FMV for selling expenses. To have made such an adjustment to FMV would have required an arbitrary division of the surrogate country producer's selling expenses into amonts for direct, indirect, and other general and administrative expenses. Alternatively, to reduce ESP for selling expenses without making corresponding adjustments to FMV would have resulted in an unfair and unreasonable inflation of any differences between ESP and FMV. See, Final Determination of Sales at Less than Fair Value: Oscillating fans and Ceiling Fans from the People's Republic of China, (56 FR 55271, October 25, 1991) and Final Results of Antidumping Duty Administrative Review: Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, from the Republic of Hungary, (55 FR 48146, November 19, 1990).

Comment 22: Petitioners claim that technical matters raised in respondents' briefs may not be considered by the Department because respondents' case briefs were not certified by competent authorities from the responding firms but only by respondents' counsel who is not qualified to certify to these factors.

DOC Position: We disagree with petitioners. Section 353.31(i) of the Commerce regulations (19 CFR 353.31(i)) requires proper certification of factual information submitted to the Department for consideration in the proceeding. Any technical matters raised in respondents' case briefs were raised in the context of argument based upon factual information properly certified, and earlier submitted, to the Department. Contrary to petitioners' assertion, § 353.38(c) of the regulations addressing case briefs, as opposed to the submission of factual information, states that the purpose of the case brief is to separately present in full all arguments which the submitter continues to view as relevant to the Department's final determination. There is no statutory or regulatory requirement that an authority from a responding firm certify a case brief submitted in an administrative proceeding.

Suspension of Liquidation

We are directing the U.S. Customs Service to continue suspension of liquidation of all entries of refined antimony trioxide from the PRC, as defined in the "Scope of Investigation" section of this notice that are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice in the **Federal Register**. The U.S. Customs Service shall require a cash deposit or bond equal to the estimated weighted-average amount by which the foreign market value of the subject merchandise exceeds the United States price as shown below. The suspension of liquidation will remain in effect until further notice.

The weighted-average dumping margins are as follows:

Weighted-average manufacturer/ producer/exported	Margin percent
China Minmetals	80.64
CNICC	13.05
All others	33.10

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d) and (19 CFR 353.20(a)(4)).

Dated: February 21, 1992.

Marjorie A. Chorlins,

Acting Assistant Secretary for Import Administration.

[FR Doc. 92-4635 Filed 2-27-92; 8:45 am]

BILLING CODE 3510-DS-M

APPENDIX D

U.S. PRODUCERS' DATA ON CRUDE ANTIMONY TRIOXIDE AND ANTIMONY METAL

Table D-1
Crude antimony trioxide: Salient data of U.S. producers,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*

[1] The data in the table are for one U.S. producer, ***, accounting for nearly 100 percent of U.S. production of crude antimony trioxide during 1990. Since *** internally consumed its production of crude antimony trioxide to produce refined antimony trioxide, some employment data and financial data are not available.

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

Table D-2
Antimony metal: Salient data of U.S. producers,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*

[1] The data in the table are for one U.S. producer, ***, accounting for nearly 100 percent of U.S. production of antimony metal during 1990.

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

APPENDIX E

INCOME-AND-LOSS DATA FOR TOLL AND NON-TOLL OPERATIONS FOR REFINED ANTIMONY TRIOXIDE

The income-and-loss data for toll and non-toll operations for refined antimony trioxide were estimated from data in the questionnaire responses by the Commission staff using the following assumptions and methods:

(1) All material costs were included in the non-toll operations since the raw material for toll operations is owned by the customer.

(2) The processing costs of direct labor and factory overhead were assumed to be the same for all quantities produced (toll and non-toll).

(3) Selling, general, and administrative expenses were allocated to toll and non-toll operations in tables E-1 and E-2 using the same ratio to net sales as total refined antimony trioxide. This allocation method results in very high operating income margins (*** percent to *** percent) for the toll operations because of the large disparity between the toll and non-toll net sales prices.

If selling, general, and administrative expenses were allocated to toll and non-toll operations on the basis of the units produced, the trend for the operating income margin for non-toll operations would remain the same with increased margins of *** percent in 1988, *** percent in 1989, *** percent in 1990, *** percent in interim 1990, and *** percent in interim 1991. However, the operating income (loss) margins for the toll operations would decrease dramatically to *** percent in 1988, *** percent in 1989, *** percent in 1990, *** percent in interim 1990, and *** percent in interim 1991.

(4) ***.

(5) Toll and non-toll income-and-loss data are presented only through operating income because (1) the combined interest and other expenses are minor (*** percent of combined refined antimony trioxide net sales in 1990) and (2) interest and other expenses may not be subject to reasonable allocation assumptions.

(6) *** net sales values and quantities for its three fiscal years were computed for toll operations using percentages and unit values provided in the questionnaire response.

(7) *** toll shipment values and quantities for its calendar years were used as surrogates for the toll net sales values and quantities for its fiscal yearends of ***.

Table E-1
Estimated income-and-loss experience[1] of U.S. producers[2] on their non-toll operations producing refined antimony trioxide, fiscal years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*	*

[1] If selling, general, and administrative expenses were allocated to toll and non-toll operations on the basis of the units produced (rather than using the same ratio to net sales as total refined antimony trioxide), the trend for the operating income margin for non-toll operations would remain the same with increased margins of *** percent in 1988, *** percent in 1989, *** percent in 1990, *** percent in interim 1990, and *** percent in interim 1991.
[2] The producers are ***.

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

Table E-2
Estimated income-and-loss experience[1] of U.S. producers[2] on their toll operations producing refined antimony trioxide, fiscal years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*	*

[1] If selling, general, and administrative expenses were allocated to toll and non-toll operations on the basis of the units produced (rather than using the same ratio to net sales as total refined antimony trioxide), the operating income (loss) margin for toll operations would decrease dramatically to *** percent in 1988, *** percent in 1989, *** percent in 1990, *** percent in interim 1990, and *** percent in interim 1991.
[2] The producers are ***.

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

APPENDIX F

COMMENTS RECEIVED FROM U.S. PRODUCERS ON THE IMPACT OF IMPORTS OF REFINED ANTIMONY TRIOXIDE FROM CHINA ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, AND EXISTING DEVELOPMENT AND PRODUCTION EFFORTS

The Commission requested U.S. producers to describe and explain the actual and anticipated negative effects, if any, of imports of refined antimony trioxide from China on their investment, ability to raise capital, or existing development and production efforts (including efforts to develop a derivative or improved version of refined antimony trioxide). Producers were also asked whether the scale of capital investments undertaken has been influenced by the presence of imports of refined antimony trioxide from China. Responses are presented below:

* * * * * * *

APPENDIX G

U.S. IMPORTS BASED ON ADJUSTED OFFICIAL STATISTICS

Table G-1
Refined antimony trioxide: U.S. imports, based on adjusted official U.S. import statistics,[1] by sources, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (1,000 pounds)				
China	5,183	6,342	6,144	4,685	5,667
Hong Kong and Macao	1,102	974	1,215	765	362
Other sources	4,402	3,843	3,036	2,373	2,268
Total	10,687	11,159	10,395	7,823	8,297
	Value (1,000 dollars)				
China	5,416	6,664	5,146	3,965	4,122
Hong Kong and Macao	1,191	952	931	580	285
Other sources	6,856	5,796	4,758	3,601	3,613
Total	13,463	13,412	10,835	8,146	8,020
	Unit value (per pound)				
China	$1.05	$1.05	$0.84	$0.85	$0.73
Hong Kong and Macao	1.08	.98	.77	.76	.79
Other sources	1.55	1.51	1.57	1.52	1.59
Average	1.26	1.20	1.05	1.04	.97

[1] Official statistics were adjusted to reflect imports of refined antimony trioxide. Imports from Bolivia, Mexico, South Africa, and Yugoslavia were deducted because these imports were believed to be crude antimony trioxide. Estimated imports from China of crude antimony trioxide, calculated from ratios determined from the responses to the Commission's questionnaires, were also subtracted from the total to reflect what the staff believes to be the imports of refined antimony trioxide.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

APPENDIX H

U.S. IMPORTS OF CRUDE ANTIMONY TRIOXIDE

Table H-1
Crude antimony trioxide: U.S. imports,[1] by sources, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (1,000 pounds)				
China	4,747	6,289	4,841	3,486	3,087
Other sources	7,301	8,394	11,741	8,378	7,962
Total	12,048	14,683	16,582	11,864	11,049
	Value (1,000 dollars)				
China	4,631	4,503	3,343	2,465	2,002
Other sources	7,674	8,222	8,908	6,448	6,186
Total	12,305	12,725	12,251	8,913	8,188
	Unit value (per pound)				
China	$0.98	$0.72	$0.69	$0.71	$0.65
Other sources	1.05	.98	.76	.77	0.78
Average	1.02	.87	.74	.75	0.74

[1] The data in the table are for 4 importers, including two U.S. producers (Anzon and Laurel), accounting for nearly 100 percent of crude antimony trioxide imports during 1990.

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

Table H-2
Crude antimony trioxide: U.S. imports,[1] by companies, 1988-90, January-September 1990, and January-September 1991

(In 1,000 pounds)

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
*	*	*	*	*	*	*

[1] The data in the table are for 4 importers accounting for nearly 100 percent of crude antimony trioxide imports during 1990.

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

APPENDIX I

APPARENT U.S. CONSUMPTION FOR NON-TOLL OPERATIONS

Table I-1
Refined antimony trioxide: Shares of apparent U.S. consumption for non-toll operations supplied by domestic producers, importers from China, and importers from all other countries,[1] 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Quantity (1,000 pounds)				
Producers' U.S. shipments	43,116	43,088	36,839	26,379	24,967
Importers' U.S. shipments:					
China	7,316	8,079	6,780	5,318	4,872
Hong Kong[2]	0	0	227	190	432
Subtotal	7,316	8,079	7,007	5,508	5,304
Other sources	3,535	3,107	2,781	2,037	1,705
Total	10,851	11,186	9,788	7,545	7,009
Apparent consumption	53,967	54,274	46,627	33,924	31,976
	Value (1,000 dollars)				
Producers' U.S. shipments	60,513	59,368	49,457	35,390	31,423
Importers' U.S. shipments:					
China	8,443	8,900	6,188	4,883	4,223
Hong Kong	0	0	196	165	349
Subtotal	8,443	8,900	6,384	5,048	4,572
Other sources[3]	4,960	5,151	4,023	2,927	2,593
Total	13,403	14,051	10,407	7,975	7,165
Apparent consumption	73,916	73,419	59,864	43,365	38,588
	Share of the quantity of U.S. consumption (percent)				
Producers' U.S. shipments	79.9	79.4	79.0	77.8	78.1
Importers' U.S. shipments:					
China	13.6	14.9	14.5	15.7	15.2
Hong Kong	0	0	.5	.6	1.4
Subtotal	13.6	14.9	15.0	16.2	16.6
Other sources	6.6	5.7	6.0	6.0	5.3
Total	20.1	20.6	21.0	22.2	21.9
	Share of the value of U.S. consumption (percent)				
Producers' U.S. shipments	81.9	80.9	82.6	81.6	81.4
Importers' U.S. shipments:					
China	11.4	12.1	10.3	11.3	10.9
Hong Kong	0	0	.3	.4	.9
Subtotal	11.4	12.1	10.7	11.6	11.8
Other sources	6.7	7.0	6.7	6.7	6.7
Total	18.1	19.1	17.4	18.4	18.6

Footnotes appear at end of table.

Footnotes to table I-1

[1] The data in the table are for 7 producers and 22 importers accounting for nearly 100 percent of total U.S. shipments of refined antimony trioxide during 1990.

[2] No importer reported imports from Macao.

[3] The value of U.S. shipments of imports from other sources is slightly undervalued. *** questionnaire response as reported by SICA included only the value of imports and not the value of domestic shipments.

Note.--Because of rounding, figures may not add to the totals shown.

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

APPENDIX J

LOST SALES AND LOST REVENUE ALLEGATIONS INVESTIGATED DURING THE PRELIMINARY INVESTIGATION

LOST SALES ALLEGATIONS

The petitioners provided specific information concerning alleged lost sales and revenues as a result of imports of refined antimony trioxide from China during the preliminary investigation.[1] *** alleged lost sales of ***, ***, and ***, totaling *** during December 1989-March 1991. *** provided *** separate lost sales allegations for the period. Commission staff attempted to contact customers named in the *** largest lost sales allegations of each U.S. producer providing data.

*** alleged lost sales of *** on a sale of *** pounds of refined antimony trioxide to *** on ***. *** stated that *** was less than *** per pound and that the sale was awarded to another U.S. producer.

On a potential sale of *** pounds to *** on ***, *** alleged lost sales valued at ***. *** allegedly quoted *** per pound, *** more than ***. *** stated that price differences of *** between the domestic and Chinese product are common. *** also stated that *** refined antimony trioxide purchases in *** were half imports from China and half from anothe U.S. producer.

*** alleged a *** lost sale for *** pounds *** to ***.[2] *** stated that *** has purchased *** antimony trioxide ***, but provided no additional information.[3]

LOST REVENUE ALLEGATIONS

*** alleged lost revenues of *** in *** on a sale to *** of *** pounds secured at ***, and *** in *** on a sale of *** pounds secured at ***. *** stated that the information was correct to the best of his knowledge. *** further stated that *** uses *** refined antimony trioxide and that the Chinese product often varies in quality.

*** allegedly accepted an offer from *** for *** pounds of refined antimony trioxide at *** per pound, *** less than the initial quote, for a reduction in revenues of ***. *** could not recall this sale, stating that *** did not purchase any antimony trioxide in quantities as large as *** pounds during the period in question. *** also stated that the market is highly competitive, especially among those suppliers vying for annual supply contracts.

---

[1] ***.

[2] *** alleged lost revenues of *** to imports from China for a sale to ***.

[3] ***.